



# Acea Sustainability Report **2012**

Corporate identity

Socio-economic relationships  
with the stakeholders


Environmental issues

Environmental accounts



# Contents

## Acea 2012 Sustainability Report

<b>INTRODUCTORY LETTER</b>	<b>4</b>	 <b>CORPORATE IDENTITY</b>	<b>19</b>
<b>COMMUNICATING SUSTAINABILITY: METHOD NOTES</b>	<b>6</b>	<b>Group profile</b>	<b>20</b>
<b>RECONCILIATION OF GLOBAL COMPACT PRINCIPLES WITH THE GRI INDICATORS</b>	<b>10</b>	Activities and functions of the main Group companies	<b>24</b>
<b>GRI CONTENT INDEX: STANDARD ELEMENTS</b>	<b>12</b>	General economic indicators	<b>26</b>
<b>OPINION LETTER ISSUED BY THE CONSULTING FIRM</b>	<b>16</b>	Development and Strategic Plan	<b>29</b>
		<b>Strategy and sustainability</b>	<b>31</b>
		Acea: the values and the contribution towards sustainability	<b>31</b>
		Sharing of the corporate social responsibility themes	<b>33</b>
		The 2012-2016 sustainability objectives	<b>35</b>
		<b>Corporate governance and management systems</b>	<b>44</b>
		Corporate governance within Acea	<b>44</b>
		Management systems	<b>50</b>
		<b>Stakeholders and sharing added value</b>	<b>54</b>
		Stakeholders and their involvement	<b>54</b>
		Distribution of Acea's added value	<b>57</b>



## **SOCIO-ECONOMIC RELATIONSHIPS WITH THE STAKEHOLDERS**

**59**

**The economic and social performance indicators** **60**

**Customers and the Community** **69**

Acea Group customers **69**

Perceived quality **70**

Quality supplied **80**

The tariffs **105**

Customer care **108**

Communication, events and solidarity **117**

**Suppliers** **127**

Consolidated external costs **127**

Purchasing policies **127**

The supply of goods, services and work **129**

Supplier assessment **134**

**Human resources** **140**

Acea's employees **140**

Industrial relations **146**

Diversity and Equal opportunities **149**

Working hours and absences **151**

Safeguarding health and safety  
in the workplace **153**

Capitalising on Human Resources  
and communication **156**

Social activities **167**

**Shareholders and Financial backers** **169**

The economic flow towards shareholders  
and financial backers **169**

Agency ratings **169**

Financial disclosure **170**

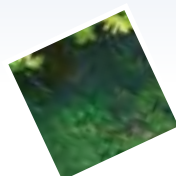
Ethical finance **171**

**Institutions and the Company** **173**

Relations with Institutions **173**

The company as stakeholder **177**

**Activities abroad** **181**



## **ENVIRONMENTAL ISSUES**

**187**

**GRI environmental performance indicators** **188**

**Sustainable development within Acea** **191**

Action taken in response to climatic change **192**

Biodiversity and the Company **194**

Acea's involvement in round tables **195**

Environmental operations **195**

Environmental expenditure **196**

**Energy** **197**

Energy generation: fossil and renewable  
energy sources **197**

Energy distribution: networks and  
the smart grid **204**

Energy savings **206**

**Water** **208**

Activities in Central Lazio: springs  
and protected areas **209**

Water quality **209**

The sewerage service and the treatment  
system **213**

**Use of energy and water** **216**

Energy consumption **216**

Water consumption **217**

**Emissions, effluent and waste** **219**

Emissions into the atmosphere **219**

Acea Group waste **221**

**Research** **223**

## **INDEX OF CHARTS AND TABLES**

**228**



## **ENVIRONMENTAL ACCOUNTS**

**231**

## Introductory letter

The *2012 Sustainability Report*, now in its 15th edition, is once again published this year together with the *Statutory financial statements*, so that the simultaneous availability of the two documents can offer outside observers a more structured image of the results of the activities and the corporate operations, complying with the legitimate request for complete disclosure. In fact, this report - with ample space dedicated to the description and quantification of the intangible assets, such as intellectual capital and relational wealth - contributes to revealing the distinctive value of the business supplementing the economic-financial information already present in the *Consolidated financial statements*.

During 2012, Acea approved and disclosed the new edition of the *Code of Ethics*, in which the reference principles which guide the operational choices of our company are reaffirmed and in some cases more precisely defined. In detail, the new *Code of Ethics* - which has included Sustainability among the General ethical principles - clearly explains from the outset its coherence with the ten Global Compact principles, which once again this year Acea wished to confirm its compliance with, and states that Acea's vocation is that of conceiving and carrying out its economic activities in observance of the principles of sustainable development, seeking the necessary balance between economic efficiency, environmental protection and social development.

In this way, we wished to highlight the Group's stance towards progressive integration of corporate social responsibility in day-to-day activities and we established a dedicated organisational Unit, so that it would be an element of stimulus and an acceleration factor towards the aim of making our activities increasingly sustainable. The approval of the *Quality, Environment, Safety and Energy Policy*, which we subscribed to in December 2012, moves in the same direction, proposing itself as an effective benchmark in relation to which choice and entrepreneurial action can be converged.

Such stances are recognised by part of the outside observers and it is with pleasure that we recall in this report that Acea in 2012 was among the 23 companies, at European level, which were acknowledged the "CEEP CSR Label", furthered by the European Commission and by the European Centre of public utility service companies. The acknowledgment, granted to the company after careful appraisal carried out by the Scientific Committee, bears witness to the adoption of sustainable operating criteria and socially responsible business action, placing us at levels of excellence on the international scene.

The Group's *Sustainability Report* wishes to bear witness to this manner of operating which is cushioned and supported by increasingly incisive national and international initiatives focused on aspects of corporate social responsibility, deemed to be factors of healthy growth and improvement drivers for the socio-economic context in which the companies operate. It is in fact known that towards the end of 2012, in response to the Communication of the European Commission No. 681/2011, the Italian Government presented its *National Action Plan on Corporate Social Responsibility* for the two-year period 2012-2014, with the aim of outlining the priority action and the measures targeted at pursuing objectives of sustainability consistent with the EU design at national level. The key points of the Plan also include the support for companies which adopt corporate social responsibility as their culture. In the same way, the National Energy Strategy presented by the Government in October contains priority elements which converge with the concept of sustainable development, such as the promotion of energy efficiency, the development of renewable energies as well as the research and development activities for cutting edge technologies. At international level, what is more, 2012 was the year of the UN Conference on sustainable development, "Rio+20", which was held in June; the two main themes were the green economy and the definition of a global governance system for sustainable development.

During 2012, Acea approved the 2012-2016 Business plan, which outlines the development process of the Group according to a number of precise strategic lines which point towards a greater level of operating efficacy and efficiency. Accordingly, for the first time, we asked the heads of the industrial Areas and the corporate Divisions to express their "sustainability objectives" over the same timespan as the Business Plan. The stances which we expected emerged with regard to technological innovation, especially in the networks area and the waste management area, energy efficiency initiatives, the desire to reduce consumption of natural resources, to improve the industrial processes for a greater containment of the environmental impacts, to offer customers quality services working to obtain better performances, to introduce elements which strengthen the ethical dimensions and quality and security throughout the supply chain, and, in conclusion, to provide greater coherence and motivation to all Group staff.

The prospects indicated enhance the sense of the responsibility process undertaken from some time now by the Group, along which it proceeds year by year. The results for the year, if observed as per the sustainability principles, therefore go in the same direction. Just an indication is provided here of certain key aspects, while reference should be made to the report for a full and complete illustration of those which characterised the year. With the continuation of the economic and social cycle difficulties, the weight of which is felt in an increasingly intense manner throughout the country, we cannot fail first of all to reveal the important confirmation of the economic-financial soundness of the Group which has managed not only to achieve economic results on the whole positive, but also accomplish significant investments. These operating results consequently generated positive repercussions on the entire context which receives the Group's operations with benefits which we believe we have equitably distributed between all our stakeholders. The year was also marked by further progress in the field of technological innovation, for example within the sphere of the smart grids and sustainable mobility, in the Networks area, and the process innovation on the Waste Management area; energy efficiency initiatives continued and satisfactory results were revealed in terms of quality performance provided with regard to services. Furthermore, we are increasingly committed to improving the contact channels and sorting out the criticalities due to the change in the IT systems which govern our commercial relationships with the customers. In conclusion during the year a new HR management system was introduced, more challenging and highly focused on the sense of team work and recognition of shared values, which we are certain will provide satisfactory results.

Finally, we believe that we can state that our Group is on the right path having strengthened awareness over time that the commitment towards generating value responsibly is a condition for continuing to be a successful business serving the community.

*The Chief Executive Officer*  
Marco Staderini



*The Chairman*  
Giancarlo Cremonesi



# Communicating sustainability: method notes

The *Sustainability Report* sets forth the **economic, social and environmental performances of the Group**, with the aim of providing the stakeholders with the clearest, most complete and integrated information possible. This edition refers to the year 2012, and is the fifteenth report published by Acea annually.

The ***Sustainability Report***, having obtained **the approval of the Board of Directors**, is published **in concurrence with the approval of the Annual statutory financial statements** by the shareholders' meeting. The new timing, introduced as from the 2011 edition, is due to the wishes of senior company management and has been formalised by the Reporting and CSR development lines adopted in November 2011 by Acea SpA's Ethics Committee.

## Guidelines

In this edition, Acea has followed the reporting standards and performance indicators of the **GRI-G3.1 Guidelines**<sup>1</sup>, the most recent version published by the Global Reporting Initiative, supplemented by the indicators envisaged **by the Sector Supplement for Utility Companies in the electricity sector**.

The sustainability report also presents, in the **Environmental Accounts**, which is an integral part of the same, around 250 items which quantify the physical flows generated by the Group's activities: the production values, the factors used (the resources) and the outputs (the waste and emissions).

Since 2007, Acea has been involved in the **Global Compact (GC)** initiative, acknowledging **coherence between the ten principles** supported by the United Nations through the "Global Pact" **and the ethical guidelines established by the Group's value codes** (2012 version). The Communication on Progress (CoP) envisaged by the Global Impact is supplemented in the sustainability report, by means of a **reconciliation of the GRI indicators with the Global Compact principles**, as a result of the agreement between the two organisations.

## Content and structure of the document

The contents of this Report aim to fulfil the expectations of the various stakeholders in terms of information in a clear and balanced way and are provided according to the indications provided in the *GRI-G3 Guidelines* appropriately linked up to the Company's business and operating context. Account was taken of the **legal nature of the company** (the Parent Company, Acea SpA, is listed on the Stock Exchange), the **relationships between the holding company and the other Group companies**, the **corporate mission** (Acea is a Utility company), the **sectors the Group operates in** (energy, water and waste management), **of the country** - Italy - **in which the activities are mainly carried out** and the **types of stakeholders** with whom the Acea interacts.

In order to more fully apply the **principle of materiality**, indicated in the GRI Guidelines and adequately highlight the topics of greatest importance in terms of sustainability, in 2011 Acea appointed a specialised company to **identify, map and hierarchise**, within the economic, social and environmental areas, **the priority elements to be included in the report**, taking into account the low, average or high "importance" assigned to them on the basis of an analysis<sup>2</sup> of the internal and external factors checked with respect to a benchmark. On conclusion of these survey activities, elements emerged summarily represented in table No. 1, for just the average and high importance assessments, each of which in reality has more complex breakdowns<sup>3</sup>. Acea takes the results of the analysis on the factors of importance into due account, in accordance with the priorities indicated by the corporate strategic choices and the Guidelines adopted for the reporting.

1 *The Global Reporting Initiative (GRI), set up in England in 1997 by the Coalition for Environmentally Responsible Economies (CERES), became an independent, official centre in 2002 so as to provide support to the United Nations Environmental Program (UNEP) and collaborate with the Global Compact project (organized by the United Nations Secretary General Kofi Annan). The GRI-G3 Guidelines, published in 2011, are available on the website [www.globalreporting.org](http://www.globalreporting.org); they present the reporting standards to be followed when drawing up the sustainability report and the economic, social and environmental performance indicators to be published. The Electric Utilities Sector Supplement published by the GRI in 2009 and applied to the Acea Sustainability Report, is available online.*

2 *The documentary analysis, carried out in 2011, has been supplemented by interviews with internal stakeholders and focus groups with external stakeholders and envisaged the processing of the "mapping of the importance" both for the report then being drafted (2010 version) and for the subsequent editions.*

3 *For example, the "Water" aspect, of high importance for environmental matters, includes subjects such as: the quality of the water and the protection of the springs, the reduction of the losses, the quality levels supplied by the service, making customers aware of the value and the quality of the water resource, the regulation of the integrated water service, which also have economic and social implications.*

**TABLE NO. 1 – MATERIALITY: MAPPING OF THE IMPORTANCE**

IMPORTANCE	ECONOMIC	SOCIAL	ENVIRONMENTAL
High	<ul style="list-style-type: none"> <li>• Indirect economic impacts</li> <li>• Governance, commitment and involvement</li> <li>• Strategy</li> </ul>	<ul style="list-style-type: none"> <li>• Community</li> <li>• Product liability</li> </ul>	<ul style="list-style-type: none"> <li>• Water</li> <li>• Emissions, effluent and waste</li> <li>• Energy</li> <li>• Environmental expenditure and investments</li> <li>• Environmental compliance</li> </ul>
Average	<ul style="list-style-type: none"> <li>• Market presence</li> <li>• Organisational profile</li> <li>• Economic performance</li> </ul>	<ul style="list-style-type: none"> <li>• Work</li> </ul>	<ul style="list-style-type: none"> <li>• Impacts of products and services on the environment</li> <li>• Raw materials</li> <li>• Transportation of products and human resources</li> <li>• Protection and impacts on biodiversity</li> </ul>

The 2012 Sustainability Report complies with **the standard elements and performance indicators** required by the GRI-G3.1 Guidelines (core and additional) and the *Sector Supplement*, **with the highest level of application (A+)**, which envisages, besides the **confirmation of all the indicators**, also the **review of the report by an external company** with proven experience regarding assurance activities. (see table No. 2).

The report offers additional information on the Group activities, with respect to that envisaged by the Guidelines, on a consistent basis with the principle of materiality and with the singularities of the company.

**TABLE NO. 2 – LEVEL OF APPLICATION OF THE GRI-G3.1 GUIDELINES**

APPLICATION LEVEL	C	C+	B	B+	A	A+
STANDARD DISCLOSURE	Report on: 1.1 2.1-2.10 3.1-3.8 3.10-3.12 4.1-4.4 4.14-4.15	REPORT ASSESSED EXTERNALLY	Report on all the criteria listed for Level C plus: 1.2 3.9, 3.13 4.5-4.13 4.16-4.17	REPORT ASSESSED EXTERNALLY	Same as requirements for level B	REPORT ASSESSED EXTERNALLY
	DISCLOSURES ON MANAGEMENT APPROACH		Management Approach Disclosures for of each indicator Category		Management Approach Disclosures for of each indicator Category	
	G3.1 PERFORMANCE INDICATORS AND SECTOR SUPPLEMENT PERFORMANCE INDICATORS		Report fully on a minimum of 20 performance indicators, at least one from each of economic, environment, human rights, work, society, product of responsibility		Report on each core and Sector Supplement indicator of the G3.1 with regard to the principle of materiality by either reporting or explaining any omissions	

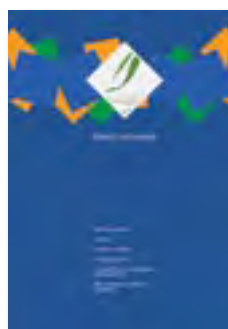
The **structure of the 2012 Sustainability Report** is divided up into three sections: **Corporate identity, The socio-economic relationships with the stakeholders** and **Environmental issues**, integrated by the **Environmental accounts** (see chart No. 1).

The report is disclosed by means of publication on the institutional website – [www.acea.it](http://www.acea.it) -, on the company intranet and distributed on a pen drive to a selected mailing list (around 750 recipients) and at the time of participation in events.

#### CHART NO. 1 – STRUCTURE OF THE 2012 SUSTAINABILITY REPORT



Corporate identity  
The socio-economic relationships  
with the stakeholders  
Environmental issues



Environmental accounts

## Boundaries of the report

The area which the reporting refers to - the “boundaries of the report” - was established **on a consistent basis with the dimension of the Group** (also see the section *Group Profile*) and **without omitting significant information or data**.

The wider boundary considered is that relating to **economic information**, which refers to the complex made up of Acea SpA and the other companies included within the **scope of consolidation**, as defined in the *2012 Consolidated Financial Statements*<sup>4</sup>. **Each time this area changes**, according to the effective availability of the data - to be placed in relation with a progressive centralised management and the significance of the same -, **this is appropriately indicated in the text**<sup>5</sup>.

The activities carried out by the holding company and the main operating companies in the water, energy and waste management sector, which the most significant economic, social and environmental performances of the Group derive from, have been subject to due reporting, to ensure comparability of the data over time.

### DEFINITIONS AND BOUNDARY

“Acea Group”, “Acea”: here reference is made to all the companies which fall within the scope of consolidation, including Acea SpA.

“Acea SpA”, “Parent Company” and “Holding Company”: these are terms used on an equal basis.

The main companies which fall within the boundaries of the report, in addition to Acea SpA, are: Acea Distribuzione, Acea Reti e Servizi Energetici, Acea Energia holding, Acea Energia and Acea Produzione; A.R.I.A. (within which the companies EALL, Terni En.A, Enercombustibili and Ergo Ena were merged via incorporation), Aquaser, Acea Ato 2, Acea Ato 5, LaboratoRI, Acque, Gori, Acquedotto del Fiora, Publicacqua, Umbra Acque, and Acea8cento.

Where possible, the boundary of the report also includes other companies and this is specified as and when appropriate in the document.

<sup>4</sup> Available on the website [www.acea.it](http://www.acea.it) (Shareholders section).

<sup>5</sup> In various cases, the reporting area of The socio-economic relationships with the stakeholders and Environmental issues sections do not coincide with the scope of consolidation despite referring to the main Group companies. These differences take place because not all the data (for example that relating to the Human resources or Suppliers) is collated and handled at centralized level. These boundary changes are always indicated in the text, in boxes entitled The boundaries.



## Data reliability and retrieval system

The data and information published in the *Sustainability Report* are essentially provided by the responsible divisions (dataowner); it is additionally supplemented and specified, by means of in-depth discussion and communication between the internal work group, which draws up the sustainability report, and the Industrial Areas and the Divisions directly concerned, until final validation. If necessary, the data is reprocessed or reclassified according to the adopted Guidelines. Before publication, the report is entrusted to an **independent consulting firm**, specialised in **assurance**, with whom Acea does not have any joint interests or any other links. The independent firm is tasked with checking the adequacy of the methods for drawing up the document, examining the contents, in all the parts including the Environmental accounts, checking the consistency with the Guidelines adopted (*GRI-G3.1* and *Sector Supplement*) and **issuing a full opinion** on its clarity, completeness and transparency. (see the *Opinion Letter of the consulting firm*).

## Measuring systems

Social and environmental quantitative data has been produced:

- where possible, by means of the **direct gauging** of the parameters correlated to the phenomena studied in this report;
- in other cases, by means of the **calculation** or the **estimate of the values** of the parameters based on the best information available.

Each piece of environmental data is commented on in the **explanatory notes to the Environmental accounts**, specifying whether this is the result of **calculation, gauging or estimation**.

### OTHER SOURCES OF INFORMATION ON GROUP PERFORMANCES: THE WEBSITE

On the website [www.acea.it](http://www.acea.it), it is possible to access up-to-date information on the Group:

- the **"Regulations and Values"** section contains documents and information on Corporate Governance, the Ethics Committee and the text of the new *Group Code of Ethics* (2012 version);
- the economic-financial reports, press releases, presentations, etc. are published in the **"Shareholders"** section. On the "Highlights" web page it is possible to view, interactively, the graphs relating to the main economic-financial data of the last few years, compare said data and compare it with that of the leading national competitors; Access is also gained to a portal with the on-line version of the Consolidated Financial Statements (in Italian and English);
- in the **"Sustainability"** section - amended and updated in 2012 - data and information on Group performances, data relating to the various stakeholders, a section of interesting news are available, along with the complete text, in PDF format, of the *2012 Sustainability Report* and previous editions; in addition, an on-line version of the report which can be consulted interactively, is available in Italian and English;
- the **"Quality and Safety"** section contains information on the two subjects;
- there is a section dedicated to **"Suppliers"**, with a part concerning legislation, Qualification Systems and on-line tenders, and, for **Customers**, information and links to the websites of the companies which manage the services;
- in the section **"Communication"** there is an area dedicated to the press and to prominent news, as well as information on the advertising campaigns created and on the main events organised with the aid of Acea.

Requests for additional information can also be sent to the following e-mail address: [RSI@aceaspa.it](mailto:RSI@aceaspa.it)

Claudio Puliti  
CSR and Sustainability Unit



Ranieri Mamalchi  
Institutional Affairs Division



# Reconciliation of Global Compact principles with the GRI indicators

Global impact is an initiative launched by the Secretary General of the United Nations at the end of the World Economic Forum in 1999. In his appeal, he invited the leaders of the world economy to provide their support and disclose nine universal principles relating to **human rights, work** and the **environment**, which were joined by a tenth - **the fight against corruption** - in 2004, and since then the network of organisations and business which have complied with the initiative, committing themselves formally, has expanded.

Acea has subscribed to the ten principles since 2007, renewing its compliance every year.

A reconciliation is presented below<sup>6</sup>, between the Global Compact principles and GRI indicators, which highlights the correlation of the same, and makes it possible to trace the information envisaged by the *Communication of Progress*, which every compliant company is obliged to draw up.

**TABLE NO. 3 - GLOBAL COMPACT-GRI CORRESPONDENCE**

<b>GLOBAL COMPACT PRINCIPLES</b>	<b>CORRESPONDING GRI INDICATORS</b>	<b>SUSTAINABILITY REPORT</b>	
<b>Human rights</b>	<b>1:</b> Businesses are required to further and respect the human rights recognised universally within the ambits of the respective sphere of influence.	EC5 ■ LA4 ■ from LA6 to LA9 ■ LA13 ■ LA14 ■ from HR1 to HR9 ■ PR1 ■ PR2 ■ PR8	Pages 157 ■ 62, 146 et seq. ■ 63, 136, 153 et seq. ■ 144 et seq. 149 et seq., 168 ■ 64, 157 ■ 32, 64, 65, 127 et seq., 134 et seq., 146 et seq., 149, 162, 167 et seq. ■ 50, 52 et seq., 102 ■ 67 ■ 45, 68, 111
	<b>2:</b> Businesses must ensure that they are not, even indirectly, party to the abuse of human rights.	from HR1 to HR9	Pages 32, 64, 65, 127 et seq., 134 et seq., 146 et seq., 149, 162, 167 et seq.
<b>Work</b>	<b>3:</b> Businesses are required to support freedom of association of workers and recognise the right to collective bargaining.	LA4 ■ LA5 ■ from HR1 to HR3 ■ HR5	Pages 62, 146 et seq. ■ 146 et seq. ■ 64, 127, 134 et seq., 162 ■ 64, 146 et seq., 167 et seq.
	<b>4:</b> Businesses must uphold the elimination of all forms of forced and compulsory labour.	from HR1 to HR3 ■ HR7	Pages 64, 127, 134 et seq., 162 ■ 65
	<b>5:</b> Businesses must uphold the effective elimination of child labour.	from HR1 to HR3 ■ HR6	Pages 64, 127, 134 et seq., 162 ■ 65
	<b>6:</b> Businesses must uphold the elimination of any form of discrimination regarding employment and profession.	EC7 ■ LA2 ■ LA13 ■ LA14 ■ from HR1 to HR4	Pages 60 ■ 140, 143 et seq. ■ 144 et seq. 149 et seq., 168 ■ 64, 157 ■ 32, 64, 127, 134 et seq., 149, 162, 168

<sup>6</sup> This reconciliation has been drawn up by UNGlobal Compact and the Global Reporting Initiative, and is available on-line ([www.unglobalcompact.org](http://www.unglobalcompact.org)) under Making the Connection. The GRI Guidelines and the UNGC Communication on Progress.

GLOBAL COMPACT PRINCIPLES		CORRESPONDING GRI INDICATORS	SUSTAINABILITY REPORT
<b>Waste Management</b>	<b>7:</b> Businesses are required to have a precautionary approach to environmental challenges.	4.11 ■ EC2 ■ EN18 ■ EN26 ■ EN30	Pages 48, 219 ■ 26 et seq., 206 ■ 206 ■ 190, 195, 198, 219 et seq. ■ 196
	<b>8:</b> Businesses are required to undertake initiatives which further greater environmental responsibility.	PR3 ■ PR4 ■ from EN1 to EN30	Pages from 84 to 90 ■ from 84 to 90 ■ 188 ss, 194 et seq., 198, 204, 206 et seq., 209, 216 et seq., 219 et seq., 244, 246 et seq., Environmental accounts 241 et seq.
	<b>9:</b> Businesses are required to encourage the development and disclosure of technologies which respect the environment.	EN2 ■ from EN5 to EN7 ■ EN10 ■ EN18 ■ EN26 ■ EN27 ■ EN30	Pages 188 ■ 198, 204, 206 et seq. ■ 217 et seq. ■ 206 ■ 190, 195, 198, 219 et seq. ■ 190 ■ 196
<b>Fight against corruption</b>	<b>10:</b> Businesses undertake to fight corruption in all its forms, including extortion and bribery.	from SO2 to SO6	Pages 45, 48 et seq., 66, 162, 173 et seq.
	<b>ALL (1-10)</b>	1.1 ■ 1.2 ■ from 4.1 to 4.10 ■ 4.12 ■ 4.13 ■ 5 (DMA) ■ SO5	Pages 4 et seq., 31 et seq. ■ 4 et seq., from 26 to 43 ■ 6, 31, from 44 to 48, 51 et seq., 151, 157 et seq., 169 ■ 6, 45, 130, 153, 174 et seq.–173 et seq. ■ 26 et seq., from 31 to 35, from 50 to 53, from 70 to 80, 108 et seq., 127 et seq., from 134 to 138, 141, 153, 156, 160 et seq., 166, 169, 177, 191, 216 ■ 173 et seq.

# GRI content index: standard elements

The **standard elements** envisaged by the **GRI-G3.1 Guidelines, 2011 edition** are presented below<sup>7</sup>, with indication of the pages of the sections of the report where it is possible to find them.

The list and the definitions of the **economic, social and environmental performance indicators** (core and additional), and the related references in the report, are presented on the first few pages of the sections *The socio-economic relationships with the stakeholders* and *Environmental issues* (tables No. 13 and 72).

The meaning of each standard element is illustrated in the Guidelines, available on the website [www.globalreporting.org](http://www.globalreporting.org).

**TABLE NO. (4) – STANDARD GRI-G3.1 ELEMENTS**

---

## **1. STRATEGY AND ANALYSIS**

---

- 1.1** Statement from the most senior decision-maker of the organization (e.g., CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy.  
*Introductory letter* pages 4-5; *Corporate identity* pages 31 et seq.
- 1.2** Description of key impacts, risks, and opportunities.  
*Introductory letter* pages 4-5; *Corporate identity* pages 26-43

---

## **2. PROFILE OF THE ORGANIZATION**

---

- 2.1** Name of the organization.  
*Corporate identity* page 20
- 2.2** Primary brands, products, and/or services.  
*Corporate identity* pages 20-25
- 2.3** Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.  
*Corporate identity* pages 22-25
- 2.4** Location of organization's headquarters.  
Acea SpA, Piazzale Ostiense 2, 00154 Rome
- 2.5** Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.  
*Corporate identity* pages 20, 27
- 2.6** Nature of ownership and legal form.  
*Corporate identity* page 22
- 2.7** Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).  
*Corporate identity* pages 26 et seq.; *Socio-economic relationships with the stakeholders* pages 69 et seq.
- 2.8** Scale of the organization, including: number of employees; net turnover (for private organizations) or net revenues (for public bodies); total capitalization.  
*Corporate identity* pages 22, 26; *Socio-economic relationships with the stakeholders* pages 140, 169
- 2.9** Significant changes to the dimensions, structure or ownership set-up which took place in the reporting period (including: the location or the changes in activities, the opening, closure or the expansion of the plants; changes in the share capital structure and other formation, maintenance and amendment of the share capital transactions).  
*Corporate identity* pages 23, 24 et seq., 29 et seq., 44; *Socio-economic relationships with the stakeholders* page 178
- 2.10** Awards received in the reporting period.  
*Corporate identity* pages 33-35; *Socio-economic relationships with the stakeholders* pages 81, 121, 176 et seq., 179

<sup>7</sup> For the standard elements already envisaged by the GRI-G3.1 Guidelines, 2006 edition and maintained in the 2011 G3.1 edition, the definition present in the Italian translation of the 2006 version were followed while for the standard elements amended by the GRI-G3.1 Guidelines, the definitions were translated from the 2011 English version; for a more detailed explanation of their meaning, which was taken into account in the drafting of the report, reference should be made to the original version in English.

### 3. PARAMETERS OF THE REPORT

---

#### Profile of the report

---

- 3.1** Reporting period (e.g., fiscal/calendar year) for information provided.  
*Communicating sustainability: method notes* page 6
- 3.2** Date of most recent previous report.  
*Communicating sustainability: method notes* page 6
- 3.3** Reporting cycle (annual, biennial, etc.).  
*Communicating sustainability: method notes* page 6
- 3.4** Contact point for questions regarding the report or its contents.  
*Communicating sustainability: method notes* page 9

#### Purpose and boundary of the report

---

- 3.5** Process for defining report content, including determining materiality, prioritizing topics within the report; and identifying stakeholders the organization expects to use the report.  
*Communicating sustainability: method notes* pages 6-9
- 3.6** Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers).  
*Communicating sustainability: method notes* pages 8-9
- 3.7** State any specific limitations on the scope or boundary of the report.  
*Communicating sustainability: method notes* pages 8-9; *Socio-economic relationships with the stakeholders* page 129, note 72
- 3.8** Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.  
*Communicating sustainability: method notes* pages 8-9
- 3.9** Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report.  
*Communicating sustainability: method notes* page 9
- 3.10** Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/ acquisitions, change of base years/periods, nature of business, measurement methods).  
*Communicating sustainability: method notes* pages 8-9; *Socio-economic relationships with the stakeholders* page 164
- 3.11** Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.  
*Communicating sustainability: method notes* pages 8-9; *Socio-economic relationships with the stakeholders* pages 140, 160 et seq.

#### GRI content index

---

- 3.12** Table identifying the location of the Standard Disclosures in the report. Identify the page numbers or web links where the following can be found: Strategy and Analysis 1.1 – 1.2; Organizational Profile 2.1 – 2.10; Report Parameters 3.1 – 3.13; Governance, Commitments, and Engagement 4.1 – 4.17; Disclosure of Management Approach, per category; Core Performance Indicators; any GRI Additional Indicators that were included; and any GRI Sector Supplement Indicators included in the report.  
*Corporate identity* pages 12-15 for the standard elements; for the performance indicators (core and additional), see: *Socio-economic relationships with the stakeholders* pages 60-68; *Environmental issues* pages 188-190

#### Assurance

---

- 3.13** Policy and current practice with regard to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided. Also explain the relationship between the reporting organization and the assurance provider(s).  
*Communicating sustainability: method notes* page 9

## 4. GOVERNANCE, COMMITMENTS, INVOLVEMENT OF THE STAKEHOLDERS

---

### Governance

---

- 4.1** Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.  
*Corporate identity* pages 44-48
- 4.2** Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement).  
*Corporate identity* pages 46 et seq.
- 4.3** For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members.  
*Corporate identity* page 46
- 4.4** Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.  
*Corporate identity* pages 45, 48; *Socio-economic relationships with the stakeholders* page 169
- 4.5** Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).  
*Corporate identity* pages 45, 48; *Socio-economic relationships with the stakeholders* page 157 s.
- 4.6** Processes in place for the highest governance body to ensure conflicts of interest are avoided.  
*Corporate identity* pages 45-48
- 4.7** Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.  
The presence of women in the governance bodies and committees is not justified by the search for a gender balance but by assessments relating to the professional skills corresponding to corporate needs. With regard to the processes for identifying and appointing the Board members of the Holding company, Acea's Articles of Association are compliant with the matters envisaged by applicable legislative provisions. Italian Law No. 120 dated 12 July 2011 on equal access to the management and audit bodies of companies listed on organised markets has been approved in Italy, introducing the obligation to foresee, as from 2012, the presence of women on the Board of Directors of listed companies representing one fifth of their composition and as from 2015, one third.  
*Corporate identity* page 46; *Socio-economic relationships with the stakeholders* page 151
- 4.8** Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.  
*Corporate identity* pages 31 et seq., 45, 47
- 4.9** Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.  
*Communicating sustainability: method notes* page 6; *Corporate identity* pages 45, 47 et seq., 51 s.
- 4.10** Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.  
*Corporate identity* pages 47 et seq.

## Commitment in external ventures

---

- 4.11** Explanation of whether and how the precautionary approach or principle is addressed by the organization.  
*Corporate identity* page 48; *Environmental issues* page 219
- 4.12 (\*)** Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.  
*Corporate identity* page 45; *Communicating sustainability: method notes* page 6; *Socio-economic relationships with the stakeholders* pages 130, 153, 174 et seq.
- 4.13** Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization has positions in governance bodies; participates in projects or committees; provides substantive funding beyond routine membership dues; or views membership as strategic.  
*Socio-economic relationships with the stakeholders* pages 173 et seq.

## Involvement of the stakeholders

---

- 4.14** List of stakeholder groups engaged by the organization.  
*Corporate identity* pages 33 et seq., 54 et seq.
- 4.15** Basis for identification and selection of stakeholders with whom to engage.  
*Communicating sustainability: method notes* page 6; *Corporate identity* page 54
- 4.16** Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.  
*Corporate identity* pages 54 et seq.; *Socio-economic relationships with the stakeholders* pages 70-80, 104, 107, 110, 115, 117-126, 137, 139, 146-149, 156, 161 et seq., 165 et seq., 170, 172, 174
- 4.17** Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.  
*Corporate identity* pages 54 et seq.; *Socio-economic relationships with the stakeholders* pages 70-80, 110 et seq., 114, 119, 137, 139, 170, 172, 174, 176, 178

## 5. MANAGEMENT APPROACH

---

- 5.** Disclosure on the management methods of the organization (Management Approach) with reference to the aspects defined under each category of performance indicators.  
*Corporate identity* pages 26 et seq., 31-35, 50-53; *Socio-economic relationships with the stakeholders* pages 70-80, 108 et seq., 127 et seq., 134-138, 141, 153, 156, 160 et seq., 166, 169, 177; *Environmental issues* pages 191, 216
- EU1** Installed capacity, broken down by primary energy source and by regulatory regime.  
*Environmental issues* page 201
- EU2** Net energy output broken down by primary energy source and by regulatory regime.  
*Environmental issues* page 198
- EU3** Number of residential, industrial, institutional and commercial customer accounts.  
*Socio-economic relationships with the stakeholders* page 69
- EU4** Length of above and underground transmission and distribution lines by regulatory regime.  
*Environmental issues* page 204
- EU5** Allocation of CO<sub>2</sub> emissions or equivalent, broken down by carbon trading framework.  
*Environmental issues* page 219
- 

(\*) For the standard element 4.12 internal translation of the original English version of the GRI-G3 Guidelines was preferred, as follows: "Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses".

# Opinion Letter issued by the Consulting Firm

## Report on Limited Review

To the shareholders of  
Acea SpA

### Scope of engagement

We have performed a limited review of the data and qualitative information set forth in the *Sustainability Report* of the Acea Group for the year ended 31 December 2012, including the *Environmental Accounts*. The purpose of the review was to verify internal coherence of the *Sustainability Report* and its compliance with the requirements and recommendations contained in the guidelines and criteria adopted for the preparation of such Report.

### Reporting Criteria

We have reviewed the indication, set forth under the heading "Communicating sustainability: methodological note" of the *Sustainability Report* that such Report, regarding the sections under review, was prepared in accordance with the principles set forth by the Global Reporting Initiative (Guidelines GRI-G3.1, ed. 2011, and Electric Utility Sector Supplement).

The responsibility for the reliability and completeness of the information set forth in the *Sustainability Report* in accordance with the above criteria rests with the Management of Acea SpA.

### Work performed

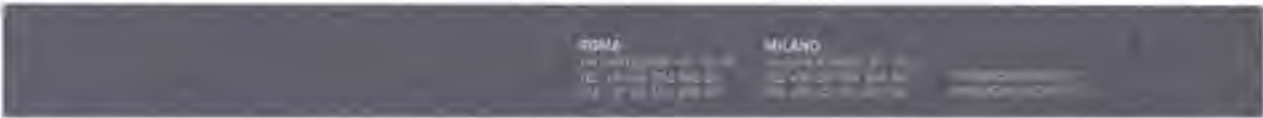
In accordance with the international review principles established by the International Federation of Accountants (IFAC) applicable in this case (ISAE 3000, Assurance engagement other than audits or reviews of historical information), we performed a limited review in order to provide a moderate level of assurance as a basis for our conclusions.

The review procedures performed comprised of the following:

- verification of the comparison of the financial and economic data with the information provided in the Financial Statements of Acea SpA and in the Consolidated Financial Statements of Acea SpA and its subsidiaries for the year ended 31 December 2012. In particular, the review was performed on all of the data directly related to the Consolidated or Company Financial Statements and on the basis of test-checks of the data reported in such financial statements or the accounting details of the same. With regard to the quantitative economic and financial data and information, we did not perform other review procedures but relied on the report of the auditors of the company dated 25 March 2013 on the Company Financial Statements and on the Consolidated Financial Statements;
- interviews with the Management and personnel of the companies of the Group in order to:
  - obtain information concerning the informative, accounting and reporting system supporting the elaboration of the *Sustainability Report*;
  - review the processes and procedures supporting the data collection, aggregation, elaboration and transmission from the operating units and



P.I./C.F. 07620761002 CAPITALE SOCIALE: € 57.508,00 I.V.





offices to the department responsible for preparing the *Sustainability Report*;

- analytical procedures and sample examinations of the documents supporting the preparation of the *Sustainability Report* in order to obtain confirmation of:
  - the reliability of the information acquired through the interviews;
  - the efficacy of the processes adopted and their compliance with the stated objectives;
  - the efficacy of the internal control systems for the proper treatment of the data and information;
- analyses on the relevance, completeness, comprehensibility and internal coherence of the qualitative and quantitative information set forth in the *Sustainability Report*. In performing this activity we referred to:
  - the reporting criteria adopted by the Management of Acea the purpose of preparing the *Sustainability Report*;
  - the benchmarking principles established in the Account-Ability's AA1000 Assurance Standard, issued by the Institute of Social and Ethical Accountability.

#### Conclusions

On the basis of the limited review indicated above, the qualitative and quantitative information set forth in the *Sustainability Report* appears coherent and in compliance with the contents requested or suggested by the Guidelines of reference and the criteria under which they were prepared.

In particular, we retain that the contents of the *Sustainability Report* conform to the A+ application level foreseen by the GRI Guidelines (G3.1, ed. 2011, and Electric Utility Sector Supplement).

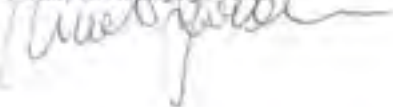
We suggest that the company pursues the course of making improvements directed at the implementation and support of adequate flows of information that underlie the realization of the *Sustainability Report* in line with the principles of accuracy and reliability of the data and information defined by the GRI Guidelines. This will facilitate compliance with the ever more stringent time frame necessary for preparing the simultaneous publication of the *Sustainability Report* and the Company and Consolidated Financial Statements.

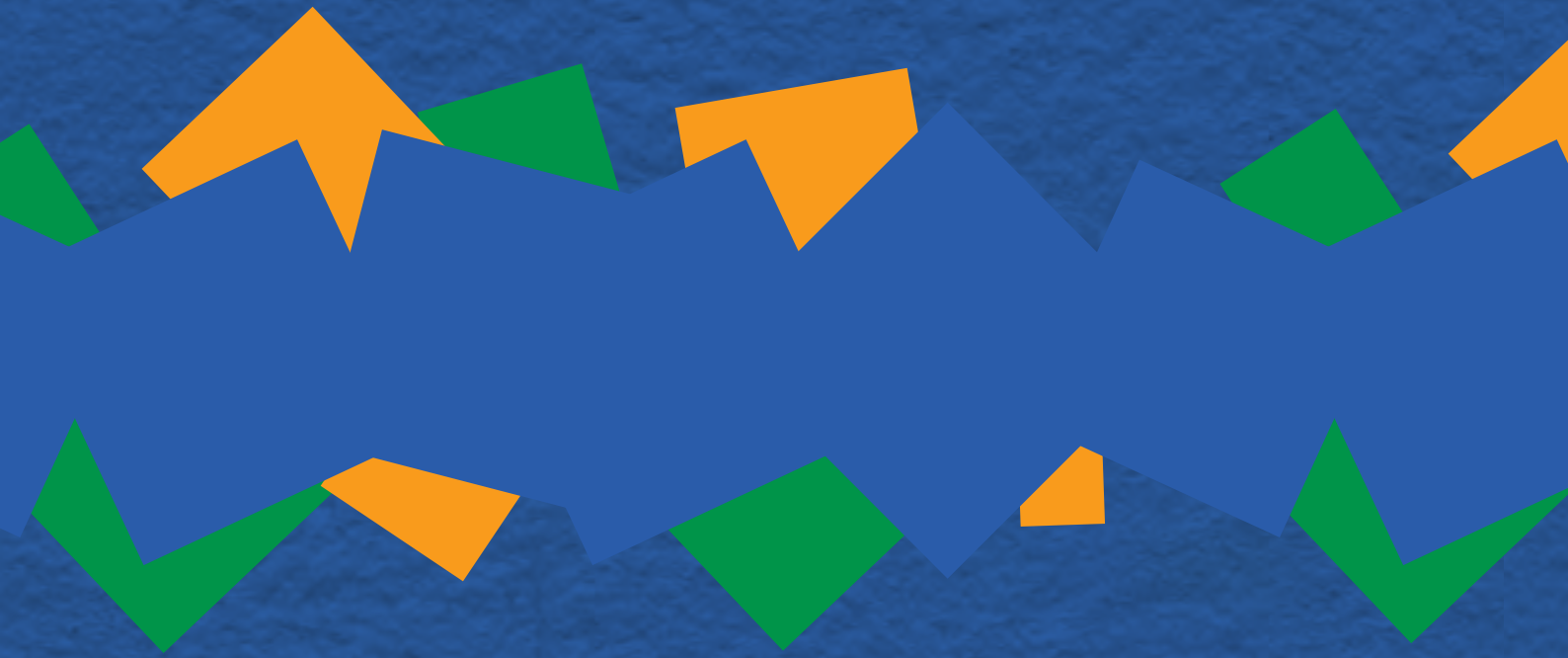
Finally, our review did not reveal any significant variations or integrations that should have been disclosed in the *Sustainability Report* in order for it to be in compliance with the criteria indicated above.

Rome, 27 March 2013

RGA S.r.l

Riccardo Giovanelli  
Partner and Managing Director







Corporate identity

## Group profile

Acea is one of the main Italian groups operative in the industrial management of networks and services of general economic interest.

The company, which adopted the choice of sustainability as the reference point for its business mission, **operates in all the segments of the energy industry** (generation, distribution and sale of electricity and gas, management of public lighting, energy efficiency), **the integrated water service** (collection, distribution and treatment) and **waste management services** (treatment, energy development of waste and economic management of waste). Deeply embedded in the Rome area, as from when its activities were launched in 1909,

accompanying the infrastructural, economic and social development up to the present day, the Acea Group is present throughout the country, thanks to alliances and participation existing with other public services companies, and is also present in certain areas of Latin America<sup>8</sup> with reference to management of the water cycle.

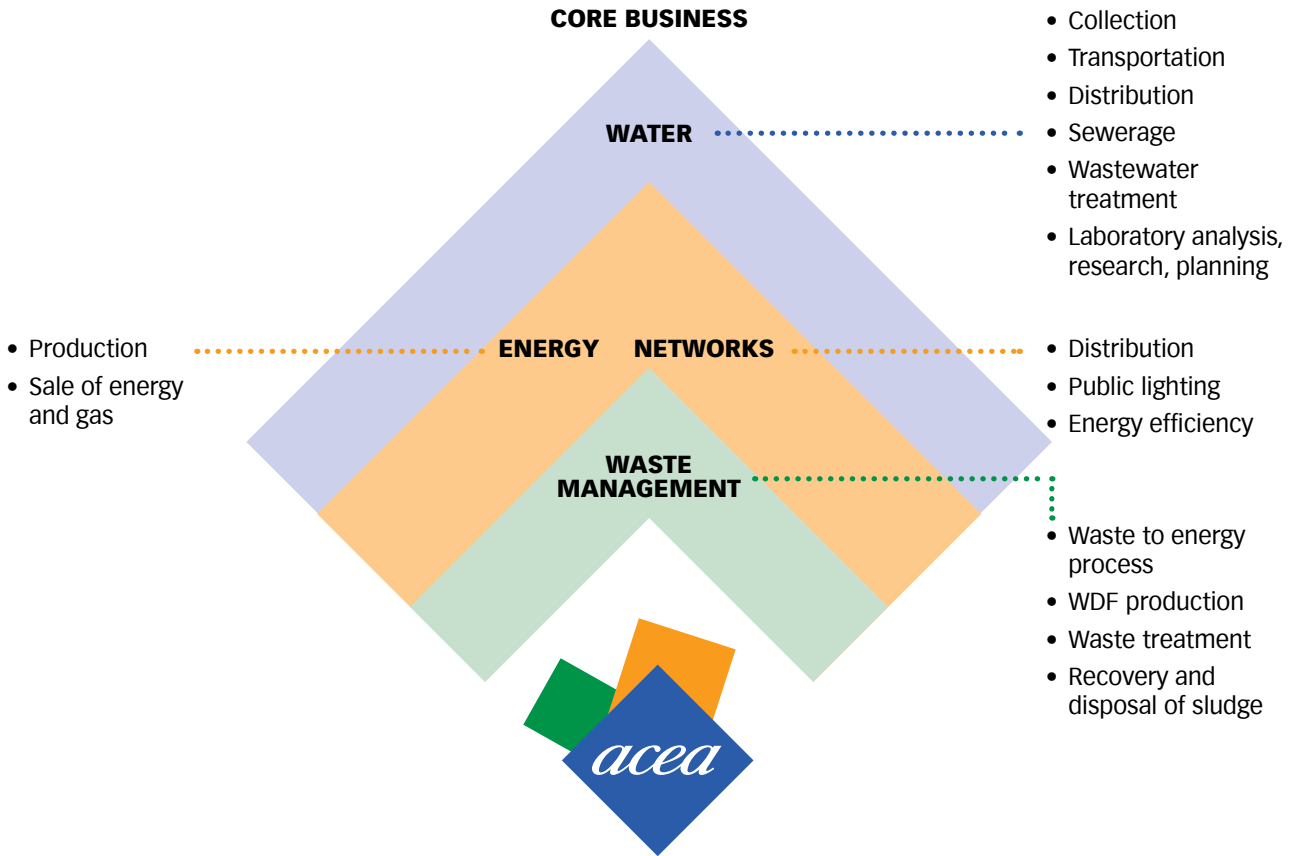
To-date, according to the most recent data, the Acea Group is the leading Italian operator in the water sector, in terms of inhabitants served, the third leading operator in Italy both in terms of volumes of electricity distributed and volumes sold on the end energy market and fifth national operator in terms of volumes of waste treated.

### THE HISTORY OF ACEA

- 1909** established as the Azienda Elettrica Municipale (AEM) for the Municipality of Rome, with the aim of supplying electricity for public and private lighting
- 1937** it becomes Azienda Governatoriale Elettricità e Acque (AGEA) and is granted the aqueduct service
- 1945** the Company changes its name to A.C.E.A. - Azienda Comunale Elettricità ed Acque
- 1964** the Company takes over the assets of Società Acqua Marcia and acquires the management of the entire Roman aqueduct service
- 1975** it is appointed by the Rome Municipal Authority to carry out the Plan to improve the water and sanitary conditions in outlying districts of Rome
- 1985** it acquires the waste water treatment service, laying the foundations for the integrated management of the entire water cycle
- 1989** the company changes its name to A.C.E.A. - Azienda Comunale Energia e Ambiente and develops expertise in the artistic and monumental lighting sector
- 1992** the Company acquires legal status, entrepreneurial independence and Articles of Association, maintaining its nature of instrumental municipal body
- 1998-2000** Acea begins to operate as a Joint-Stock Company under the name of Acea SpA. It is listed on the Stock Exchange in 2009 and becomes a corporate group, launching a policy for expansion on both the Italian and overseas markets and exploring new areas of activities
- 2001-2002** it consolidates its presence in Rome, absorbing from Enel SpA in 2001 the energy distribution business
- in the metropolitan area of the capital and acquiring, within the sphere of the adjudication of the integrated water cycle in ATO 2 – Central Lazio, the management of the sewerage service for the Rome Municipal Area in 2002. In the same year, together with the partner GdF Suez, it created the joint venture AceaElectrabel operative in the energy area.
- 2003-2005** it develops its energy production capacity, investing in Tirreno Power and acquiring additional generation companies between 2003 and 2004. In the water sector, it is awarded the management of the integrated water service in new Optimum Areas of Operation (ATO), in Lazio, Tuscany and Campania.
- 2006** it acquires control over TAD Energia Ambiente SpA, operative within the sphere of the production of energy

<sup>8</sup> And in greater detail Peru, Honduras, Colombia and the Dominican Republic (see the section Activities abroad).

**CHART NO. 2 - ACEA GROUP ACTIVITIES**



from waste (waste to energy). It enhances its networks and the sales initiatives for energy and gas, with interest in the potential of other areas (Puglia, Umbria, Tuscany).

**2007-2009** it increases the energy production capacity both from traditional sources, constructing and starting up new thermo-electricity installations, and from renewable sources, in this sphere strengthening the generation from wind and photovoltaic sources and laying the foundations for the growth of waste to energy activities. It consolidates the management of the integrated water management service in ATOs in Lazio, Campania, Tuscany and Umbria. In 2008, it establishes Acea8cento by means of which it internalizes the management of the channels of contact between Group companies and customers.

**2010-2012** together with the partner GdF Suez, it establishes the winding-up of the joint venture AceaElectrabel, active in the energy sector, thereby becoming entirely independent in this sphere. With a view to this, in 2011 Acea adopted a corporate structure for the production and sale of electricity which it fully owns and runs (Acea Produzione and Acea Energia). It develops technological innovations and operating efficiency activities within the sphere of electricity distribution (smart grids and sustainable mobility) and continues with the development of the activities pertaining to the waste management industrial area, revamping the waste to energy plants and consolidating the operations of the waste recovery and treatment plants. In conclusion, in order to pursue

the strategy defined by the new business plan approved in 2012, it sells off its photovoltaic assets located in Puglia, Lazio and Campania.



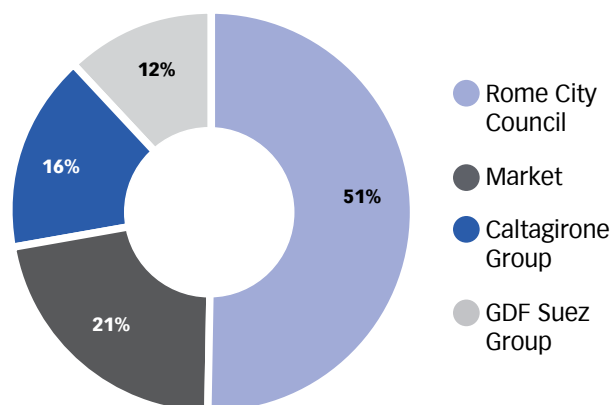
**TABLE NO. 5 – THE ACEA GROUP: THE NUMBERS FOR 2012**

<b>employees</b> (number, per % of consolidation)	<b>7,257</b>
<b>net revenues</b> (millions of Euro)	<b>3,612.7</b>
<b>total capitalisation</b> (millions of Euro)	<b>3,310.5</b>
bonds	1,011.1
shares	1,098.9
long-term loans	1,200.5
<b>total balance sheet assets</b> (millions of Euro)	<b>6,818.7</b>
<b>Electricity</b>	
generation (GWh) (gross)	652
from renewable sources (GWh) (gross)	530
Hydroelectric	361
photovoltaic	60
waste to energy	109
distribution (GWh)	11,863
sale (GWh) (eligible and protected market)	13,397
electricity and gas customers (number)	1,422,960
<b>waste to energy (WtE)</b>	
energy generation (GWh) (gross)	218
Waste treated - WDF (t)	218,256
<b>public lighting</b>	
lighting units managed in Rome (number)	186,238
<b>water (integrated water service)</b>	
drinking water supplied (Mm <sup>3</sup> )	655.7
number of analytical controls on drinking water	1,169,201
waste water treated (Mm <sup>3</sup> )	851.9
inhabitants served in Italy (millions)	8.6
abroad (millions)	9.7

NB: the figures relating to energy generation relate to Acea Produzione, to Acea Reti e Servizi Energetici and to A.R.I.A., which Acea SpA wholly owns; the figures relating to the water services, 100% attributable to the Group, refer to the main water companies.

The Municipality of Rome is Acea SpA's majority shareholder with 51% of the share capital, while the remaining 49% is listed on the Electronic Stock Exchange organised and managed by the Borsa Italiana. As of **31 December 2012**, other significant shareholdings in the share capital, direct or indirect, were in circulation on the market for 21.1% (22.5% as of 31 December 2011), as well as held by the Caltagirone Group (16.4%) (15% as of 31 December 2011) and the GdF Suez Group (11.5%).

**CHART NO. 3 – THE SHAREHOLDING STRUCTURE AS OF 31 DECEMBER 2011**



Source: CONSOB - only shareholdings, rounded off in the pie chart, greater than 2% are shown

Acea SpA, the Parent Company, holds the corporate shareholdings and exercises **strategic policy** and **economic-financial co-ordination** functions for the Group's activities. It also carries out activities for the management support and control of the operating companies via services of an executive, legal, logistical, technical, financial and administrative nature. Acea SpA's **macrostructure** is divided up into **corporate functions** and **four business areas - water, networks, energy, waste management** - to which the individual companies report (see chart No. 6).

**The Group's scope of consolidation** as of 31 December 2012 included the **49 companies** listed in table No. 6 (consolidated in the financial statements using the line-by-line and proportional method ) and an additional **16 companies** carried at equity.

**No significant changes took place** in the scope of consolidation during the year.

**TABLE NO. 6- SCOPE OF CONSOLIDATION AS OF 31 DECEMBER 2012 (COMPANIES CONSOLIDATED ON A LINE-BY-LINE AND PROPORTIONAL BASIS)**

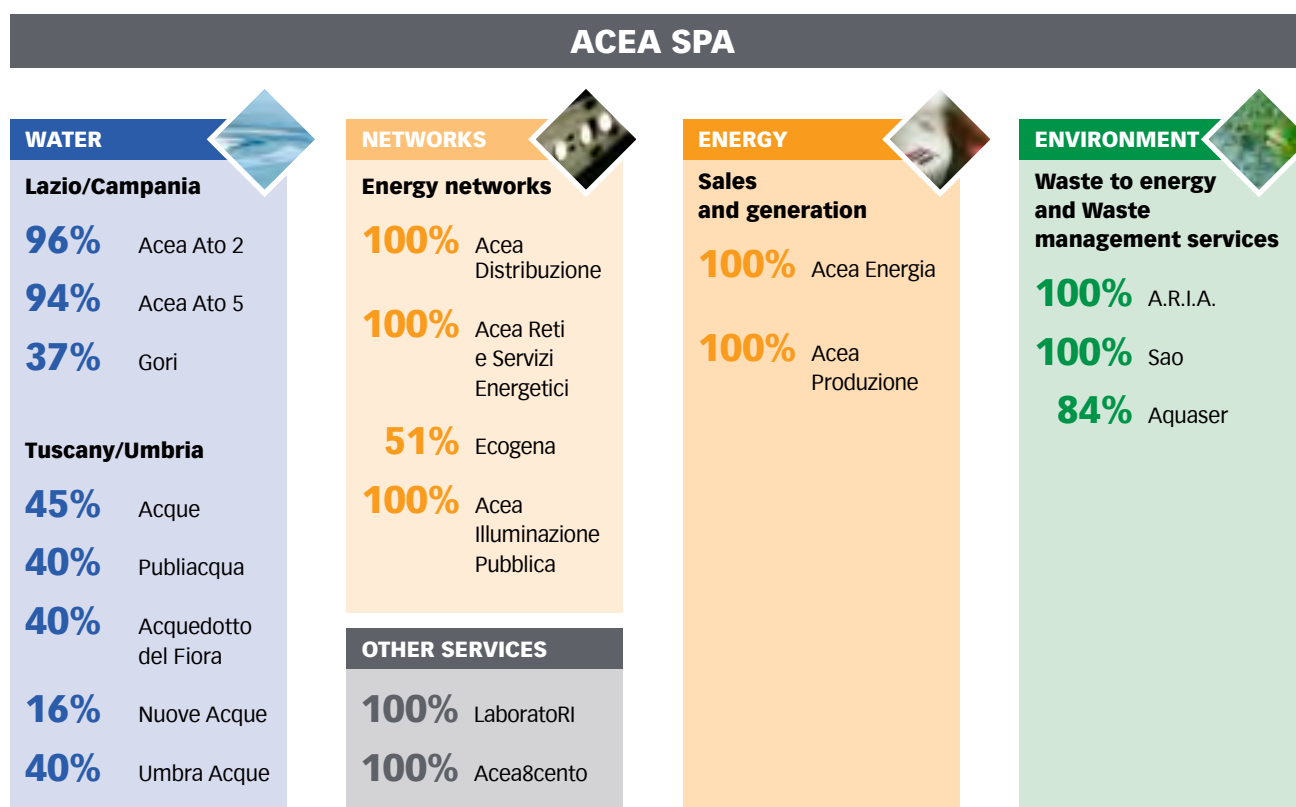
<b>Company name</b>	<b>Registered offices</b>	<b>Acea SpA % holding</b>	<b>Consolidation method</b>
Acea Distribuzione SpA	Rome	100.00%	line-by-line
Acea Ato2 SpA	Rome	96.46%	line-by-line
Acea Reti e Servizi Energetici SpA	Rome	100.00%	line-by-line
Acque Blu Arno Basso SpA	Rome	69.00%	line-by-line
Acque Blu Fiorentine SpA	Rome	69.00%	line-by-line
Ombrore SpA	Rome	84.57%	line-by-line
LaboratoRi SpA	Rome	100.00%	line-by-line
Acea Ato 5 SpA	Frosinone	94.48%	line-by-line
Sarnese Vesuviano SpA	Rome	99.17%	line-by-line
Crea SpA (*)	Rome	100.00%	line-by-line
Crea Gestioni Srl	Rome	100.00%	line-by-line
Gesesa SpA	Benevento	59.67%	line-by-line
Lunigiana SpA (*)	Aulla (MS)	95.79%	line-by-line
Aguazul Bogotà SA	Bogotà-Colombia	51.00%	line-by-line
Acea Dominicana SA	Santo Domingo	100.00%	line-by-line
A.R.I.A Srl	Terni	100.00%	line-by-line
SAO Srl	Orvieto (TR)	100.00%	line-by-line
Ecoenergie Srl (*)	Paliano (FR)	90.00%	line-by-line
Aquaser Srl	Volterra (PI)	84.21%	line-by-line
Kyklos Srl	Aprilia (LT)	51.00%	line-by-line
Solemme SpA	Monterotondo Marittimo (GR)	100.00%	line-by-line
Acea8cento SpA	Rome	100.00%	line-by-line
Acea Gori Servizi Scarl	Pomigliano d'Arco (NA)	69.82%	line-by-line
Acea Illuminazione Pubblica SpA	Rome	100.00%	line-by-line
Acea Produzione SpA	Rome	100.00%	line-by-line
Acea Energia holding SpA	Rome	100.00%	line-by-line
Acea Energia SpA	Rome	100.00%	line-by-line
Acea Servizi Acqua Srl (*)	Rome	70.00%	line-by-line
Acque Blu Srl (*)	Montecatini Terme (PT)	55.00%	line-by-line
Innovazione Sostenibilità Ambientale Srl	Pontercorvo (FR)	51.00%	line-by-line
Acque SpA	Pisa	45.00%	proportional
Acque Industriali Srl	Pisa	45.00%	proportional
Acque Servizi Srl	Pisa	45.00%	proportional
Consorcio Agua Azul SA	Lima - Perù	25.50%	proportional
Umbria Energy SpA	Terni	50.00%	proportional
Voghera Energia Vendita SpA (*)	Voghera (PV)	50.00%	proportional
Elga Sud SpA	Trani (BT)	49.00%	proportional
Ecogena SpA	Rome	51.00%	proportional
Ecomed Srl	Rome	50.00%	proportional
Publiacqua SpA	Firenze	40.00%	proportional
Publiutenti Srl	Firenze	40.00%	proportional
Gori SpA	Torre Annunziata (NA)	37.05%	proportional
Umbra Acque SpA	Perugia	40.00%	proportional
A.PI.C.E. Srl (*)	Rome	50.00%	proportional
Intesa Aretina Scarl	Milano	35.00%	proportional
Nuove Acque SpA	Arezzo	46.16%	proportional
Ingegnerie Toscane Srl	Firenze	43.01%	proportional
Consorcio AZB-HCI (Conazul)	Lima – Perù	60.00%	proportional
Acquedotto del Fiora SpA	Grosseto	40.00%	proportional

(\*) In liquidation.

## Activities and functions of the main Group companies

The Group's **operational set-up** as of 31 December 2012, by business area is outlined in chart No. 4. The **activities carried out by the main operating companies**<sup>9</sup> are described in summary form in the following diagram.

**CHART NO. 4 - OPERATIONAL SET-UP AS OF 31 DECEMBER 2012 (DIRECT INVESTEE COMPANIES OF ACEA SPA)**



### WATER

**Acea Ato 2 SpA:** this company manages the integrated water service in ATO 2 – Central Lazio (Rome and another 111 municipalities in the Lazio region). The SII – integrated water service – is involved in water collection, transportation and distribution activities, sewerage system management and waste water treatment. Acea Ato 2, besides looking after the plants and their enhancement, protects and monitors the drinking water supply sources, manages the monumental fountains, drinking fountains, fire hydrants and irrigation services.

**Acea Ato 5 SpA:** this company manages the integrated water service in the ATO 5 - Southern Lazio – Frosinone which includes 86 municipalities.

**Ombrore SpA:** holds shareholdings in **Acquedotto del Fiora SpA**, operator of the integrated water service in ATO 6 – Ombrone, in Tuscany, which includes 56 municipalities in the provinces of Grosseto and Siena.

**Sarnese Vesuviano Srl:** this company has shareholdings in **Gori SpA**, operator of the integrated water service in ATO 3 – Sarnese Vesuviano, in Campania, which includes 76 municipalities in the provinces of Naples and Salerno.

**Acque Blu Arno Basso SpA:** holds shareholdings in **Acque SpA**, operator of the integrated water service in ATO 2 – Basso Valdarno, in Tuscany, which includes 57 municipalities in the provinces of Pisa, Florence, Siena, Pistoia and Lucca.

**Acque Blu Fiorentine SpA:** holds shareholdings in **Publicacqua SpA**, operator of the integrated water service in ATO 3 – Medio Valdarno, in Tuscany, which includes 49 municipalities in the provinces of Florence, Prato, Pistoia and Arezzo.

**Crea Group:** it controls a number of water services management companies which operate in the ATOs of Lucca, Terni, Rieti and Benevento.

**Intesa Aretina Scarl:** 35% owned by Acea SpA as from 2009, it controls **Nuove Acque SpA** an integrated water service management company in ATO 4 – Alto Valdarno, which includes 37 municipalities in the provinces of Arezzo and Siena.

**Umbra Acque SpA:** it is the operator of the integrated water service in ATO 1 and 2 - Umbria, which consist of 38 municipalities, including Perugia and Assisi.

<sup>9</sup> The companies APICE SpA and Voghera Energia Vendita SpA were placed in liquidation during December 2012, therefore they are no longer included in the diagram.



**Laboratori SpA:** it carries out laboratory, research and development services, studies and consultancy, engineering services (planning and supervision of works) mainly in the water area, provided to Acea Group companies and the external market; it also offers technical and scientific support for the development of the Group on the national and international market.

## NETWORKS

**Acea Distribuzione SpA:** this company handles the services for the distribution and measurement of electricity, under high, medium and low voltage (HV, MV, LV), in the municipalities of Rome and Formello; it is devoted to the planning, design, construction and maintenance of high-voltage primary distribution plants and medium and low-voltage secondary distribution networks. Via a dedicated project Unit, it creates and runs the public and cemetery lighting systems in the municipality of Rome.

**Acea Illuminazione Pubblica SpA:** established in 2010 is involved in the development of the public lighting systems and the management of the installations.

**Acea Reti e Servizi Energetici SpA:** since 2005 it has seen to the activities linked to the obligations to increase energy efficiency (Ministerial Decree dated 20 July 2004) on behalf of Acea Distribuzione; it ensures the supervision of technological innovation with regards to energy saving, develops the use of renewable sources in the production of energy and co-generation and tri-generation activities, and offers energy services **in its capacity as an E.S.Co.** (Energy Service Company).

**Ecogena SpA:** established in 2007 by the joint venture between Astrim and Acea (which has a holding in the share capital of 51%), it designs and builds high efficiency co-generation/tri-generation energy plants (combined production of heat, electricity and cooling energy) for industrial and non-industrial buildings, availing itself of technologically advanced solutions. Since 2010, it holds 49% of **EUR Power Srl**, a company tasked with building and running co-generation/tri-generation plants and generating plants with heat pumps with geothermal integrations.

## ENERGY

**Acea Energia Holding SpA:** this company oversees the performance of the administration functions for the subsidiary companies - Acea Energia and Acea Produzione - seeing to the coherence with the operating policies of Acea SpA. Furthermore, it ensures the supply of electricity, gas and fuels for Acea Energia and Acea Produzione, monitors the reference markets and turns to account the energy production of the plants and the associated certificates (green certificates, CO<sub>2</sub> emissions trading, RECS-COFER).

**Acea Energia SpA:** this company is involved in the sale of electricity and gas for the eligible market and for the protected service. Acea Energia holds shareholdings in the share capital of **Elgasud SpA** and **Umbria Energy SpA**, companies involved in the marketing of energy, gas and related services with territorial interests in Puglia, Basilicata and Umbria.

**Acea Produzione SpA:** this company handles the electricity and heat production activities via its own group of plants, made up of 7 hydroelectric plants and 2 thermoelectric plants, mainly concentrated in Lazio.

## WASTE MANAGEMENT

**A.R.I.A. Srl** (Acea Risorse e Impianti per l'Ambiente): 100% owned by Acea SpA, it carries out activities for the production of electricity by means of the use of different types of waste and operates within the sphere of environmental services. It runs two waste to energy plants, situated in Terni and San Vittore del Lazio, a waste selection and composting plant and associated landfill in Orvieto and a WDF (Waste-Derived Fuel) production plant in Paliano (Frosinone).

**Aquaser Srl:** it is involved in the recovery and disposal of sludge which derives from the treatment of water. Aquaser controls the companies **Kyklos Srl** and **Solemme SpA**, both owners of composting plants. In March 2011, it acquired investment holdings in **Innovazione Sostenibilità Ambientale Srl** (ISA), which is involved in logistics and the transportation of sludge.

## CORPORATE

**Acea8cento:** its purpose is to handle customer care activities, and in particular the remote contact channels, for the Acea Group companies.

## General economic indicators

Despite the presence of an unfavourable economic situation for the country and a specific context of uncertainty for the integrated water service, consequent to a segment regulatory system still being defined, the **2012 results** of the Acea Group highlight the positive performance of the business areas and the ability to guarantee profitability, in the wake of the planned industrial objectives. The main financial statements

indicators<sup>10</sup>, in fact, reported growth: from **consolidated revenues** (Euro 3,612.7 million; +2.1% on 2011) to the **gross operating margin** (Euro 695.2 million; +6% on 2011) and the **operating result** (Euro 293.8 million; +32% on 2011). **Group profit**, amounting to **Euro 77.4 million**, disclosed a drop of 10% with respect to last year, due to the rise in income taxes: in fact the tax rate came to 51% (42.1% in 2011).

**TABLE NO. 7 - ACEA GROUP INCOME STATEMENT AND EQUITY HIGHLIGHTS (2011-2012)**

(in millions of Euro)	2011	2012
<b>net revenues</b>	<b>3,538</b>	<b>3,612.7</b>
<i>payroll and related costs</i>	280.6	282.0
<i>external costs</i>	2,599.9	2,635.3
<i>operating costs</i>	2,880.5	2,917.3
<b>gross operating margin (EBITDA)</b>	<b>655.8</b>	<b>695.2</b>
<b>operating result (EBIT)</b>	<b>222.6</b>	<b>293.8</b>
financial transactions	(120.6)	(120.6)
transactions on equity investments	57.1	0.9
<b>pre-tax result</b>	<b>159.1</b>	<b>174.1</b>
income taxes	65.6	88.8
<b>net result</b>	<b>93.5</b>	<b>85.3</b>
income/loss pertaining to minority shareholders	7.6	7.9
<b>group net result</b>	<b>86</b>	<b>77.4</b>
<i>adjustment to fair value of discontinued activities</i>		
<b>group net result net of adjustment to fair value of discontinued activities being disposed of</b>	<b>86</b>	<b>77.4</b>
Shareholders' equity	1,311.5	1,322.4
invested capital	3,637.3	3,827.9

**Consolidated revenues in 2012** amounted to **Euro 3,612.7 million**, up 2.1% with respect to the Euro 3,538 million in 2011.

In the **energy sector** (services and sales of electricity and gas) revenues amounted to **Euro 2,471 million**, with growth of over 1.2% (Euro 2,440.5 million in 2011). The result indicated emerged due to contrasting episodes, such as: the lower revenues from the sale of gas, for Euro 8.1 million, consequent to the exit of AceaElectrabel Trading from the scope of the

Acea Group; the positive margin, for Euro 26.9 million deriving, again consequent to the winding up of the joint venture with AceaElectrabel, from the balance of the consolidation transactions on the generation and sales companies; the additional revenues, for around Euro 19 million, for the energy produced by the waste to energy plants of A.R.I.A.; the increase in revenues for around Euro 48 million from the energy distribution activities.

Revenues from **white and**<sup>11</sup> **green certificates**<sup>12</sup>

<sup>10</sup> The 2012 economic figures included the activities of the photovoltaic sector which was sold off at year end and the effects of the sentence of the Council of State, which confirmed the fine applied by the Antitrust authority in 2007 to Acea (Euro 8.3 million) and Suez Environment, due to the restrictive agreement on competition regarding participation in the bid for the acquisition of 40% of Publiacqua (water services management company in Florence).

<sup>11</sup> The ministerial decrees dated 20 July 2004 introduced the so-called system of white certificates, (Titoli di Efficienza Energetica-TEE), into Italian legislation, envisaging that the distributors of electricity and natural gas must achieve specific quantitative objectives annually in primary energy savings, by means of the achievement of energy efficiency projects. The interministerial decree dated 28 December 2012, established the objectives up to 2016, transferring responsibility for the certification of savings achieved from the AEEG to the GSE.

<sup>12</sup> Up until 2012, green certificates represented the incentive instrument for electricity produced from renewable sources (excluding photovoltaic) as per the provision of Italian Legislative Decree No. 79/99 (Bersani decree). This model was out-dated by the Decree of the Ministry for Economic Development 6/6/2012 implementing Article 24 of Italian Legislative Decree No. 28/11. The incentive acknowledged to the production of energy from plants fuelled by the afore-mentioned renewable sources, with a nominal power greater than established threshold values and which came onto stream as from 1 January 2013, was awarded on the basis of discount auctions handled by the GSE. The auction procedures envisage a value of the incentive in any event acknowledged, determined taking into account the needs to recoup the investments made.

and **CO<sub>2</sub><sup>13</sup> trading**, came to Euro 37.4 million (Euro 19.7 million in 2011) up by around 90%. The sales of white certificates, for energy saving projects, generated Euro 23.6 million. The hydroelectric plants of Salisano and Orte ensure Acea Produzione Euro 12.1 million for green certificates.

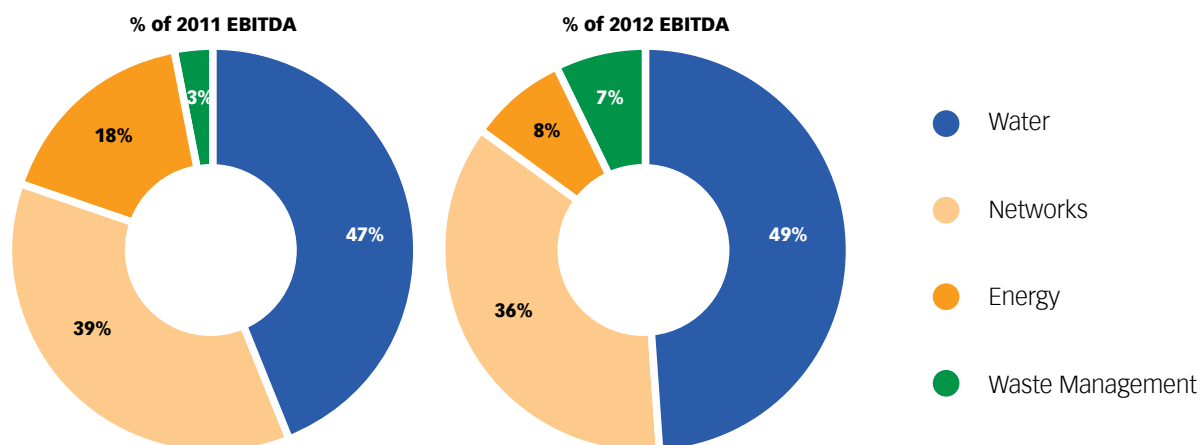
**Public and cemetery lighting** reported a drop in sales turnover, to around Euro 79.8 million (Euro 85.2 million in 2011). **Waste management services** (waste treatment, landfill management, compost production and WDF) reported revenues for Euro 32.1 million, up slightly with respect to the Euro 28.9 million in 2011.

Revenues for **water management activities in Italy and abroad** came to **Euro 830.2 million<sup>14</sup>** (Euro 753.3 million in 2011). In detail, there was significant growth in the results achieved by the water companies in Lazio and Campania, whose revenues in total amounted to around Euro 617 million (around Euro 539 million in 2011).

The **gross operating margin (EBITDA)** came to **Euro 695.2 million**, up 6% (Euro 655.8 million in 2011). Excluding the corporate area and not considering the Antitrust Authority fine, the following contributed towards the formation of the overall value:

- the **Water** business area, for 49%, with Euro 349 million (Euro 323.7 million in 2011). The margin was affected by the positive effects of the tariff adjustments acknowledged by the Mayors' Conference of the related Area Authority to Acea Ato 2, for the years 2006 to 2011.
- the **Networks** business area, for 36%, with Euro 260.7 million (Euro 269.6 million in 2011). The slight decrease in the margin was determined by the minor activities for the construction of photovoltaic plants on behalf of third parties and the changes on the calculations of revenues introduced by the AEEG as from 2012, being the first year of the new regulatory period (2012-2015).
- the **Energy** business area, for 8%, with Euro 61 million (Euro 61.4 million in 2011). The margin was affected by both the effect of the winding up of the AceaElectrabel joint venture and the bringing onto stream of the hydroelectric plants at Orte and Salisano.
- the **Waste management** business area for 7%, with Euro 49.3 million (Euro 31.7 million in 2011), thanks to the contribution of the two lines of the San Vittore del Lazio plant and the resumption of WDF production at the Paliano plant.

**CHART NO. 5 – CONTRIBUTION OF THE BUSINESS SEGMENTS TO THE OVERALL EBITDA (2011-2012)**



<sup>13</sup> The Emission Trading System (Directive No. 2003/87/EU) is an administrative instrument, in force within the EU sphere, for providing incentives for industrial production with reduced greenhouse gas emissions (CO<sub>2</sub>). The production plants falling within the sphere of this directive, assimilated in Italy by means of Italian Legislative Decree No. 216/2006, at the start of the year receive a permit to issue a maximum quantity of CO<sub>2</sub> in relation to various factors, including the technology used: the more technologically advanced plants receive more extensive permits. The following year, after the checking of the effective emissions, the plant operator will have to acquire possible CO<sub>2</sub> quotas on the market, in the event of exceeding the assigned limits, or may sell the CO<sub>2</sub> quotas, which have possibly not been emitted with respect to the assigned amount. Thus a market mechanism is established, rewarding for the plants which emit under a sector benchmark and penalising for those which exceed the benchmark.

<sup>14</sup> Revenues from foreign water management activities represent around 4.5% of total water revenues and around 1% of total Group revenues. See the section Activities abroad for a brief description of the foreign management activities.

The **operating result (EBIT)** came to **Euro 293.8 million**, up 32% with respect to the previous year (Euro 222.6 million). The EBIT is determined by the value of the **amortisation, depreciation, provisions and writedowns** which came to Euro 401.4 million, down Euro 31.9 million with respect to 2011. This decrease was mainly due to the balance between the additional writedowns for Euro 25.5 million and the minor provisions for risks and charges totalling Euro 59 million; the estimate, for almost Euro 8 million in charges, deriving from the repayment of the portion of

remuneration of the capital invested on the 2011 water tariff, which could come about further to the coming decisions which the AEEG will adopt, is in any event allocated under albeit reduced provisions.

The **Group net result**, after allocations to minority shareholders, presented a **profit of Euro 77.4 million** (Euro 86 million in 2011).

The **net financial position** presented a loss of around Euro 2,495.5 million (Euro 2,325.8 million in 2011), involving a change of Euro 169.7 million.

**TABLE NO. 8 - ACEA GROUP BALANCE SHEET FIGURES AND NET FINANCIAL POSITION (2011-2012)**

(in thousands of Euro)	31.12.2011	31.12.2012
non-current financial assets (liabilities)	1,097	2,060
non-current intercompany financial assets (liabilities)	18,033	30,899
payables and other non-current financial liabilities	(2,298,916)	(2,211,609)
<b>medium/long-term net financial position</b>	<b>(2,278,976)</b>	<b>(2,178,650)</b>
liquid funds and securities	321,093	423,771
short-term amounts due to banks	(448,889)	(753,850)
current financial assets (liabilities)	(26,787)	(56,898)
current intercompany financial assets (liabilities)	107,727	70,149
<b>short-term net financial position</b>	<b>(46,855)</b>	<b>(316,828)</b>
<b>total net financial position</b>	<b>(2,325,831)</b>	<b>(2,495,478)</b>
shareholders' equity	1,311,457	1,332,409
invested capital	3,637,288	3,827,887

The results for the year positively influenced the profitability ratios both of own capital (ROE) and invested capital (ROIC).

**TABLE NO. 9 - THE MAIN PROFITABILITY INDICATORS (2009-2012)**

	2010	2011	2012
<b>return on own capital</b>			
ROE = Result for the year after taxation/shareholders' equity	9.9%	7.1%	6.4%
<b>return on capital invested</b>			
Pre-tax ROIC = Operating result (EBIT)/invested capital	8.9%	6.1%	7.6%

## Development and Strategic plan

2012 was a particularly important year due to a number of elements of profound innovation - which at national level characterised both the energy and the water sectors - in the discipline and in the overall prospects, consequently also affecting Acea's development policies.

With regard to the **water sector**, further to the issue of a Prime Minister's Decree, dated 20 July, **the Gas and Electricity Authority** undertook its own **regulation and control activities also for this sector**. The first measures adopted by the Authority concerned the drafting of the transitory method for **determining the tariffs** pertaining to the integrated water service for the two-year period 2012-2013 and the approval of the first directive for the transparency of bills. These initial measures, aimed at the creation of a clearer and more stable regulatory framework, protecting operators and customers, represent the best premise so that, as has already taken place in the energy sector, an innovative turn around to a fundamental segment for the socio-economic and environment development of the country may take root (in this connection, see the section *Customers and the Community, The tariffs*).

Significant elements which affected the energy sector, increasingly qualifying due to the future implications of the same, included the **National Energy Strategy**, presented by the Government in October. The idea is, by means of this programming document, to provide Italy with a modern energy sector, as the cornerstone for its sustainable growth. In order to achieve the results envisaged by the EU 20-20-20 objectives, reduce dependency on abroad, also with a view to mitigation of the geo-political risks, and align the Italian energy bill prices with the European ones, **seven priorities are envisaged**, including the promotion of energy efficiency, transversal fundamental principle, the sustainable development of renewable energies and traditional sources generated in Italy, research and development activities into cutting edge technologies and the furthering of a competitive gas and electricity market integrated with the EU area.

Furthermore, again in the electricity sector, the **fourth regulation period** (2012-2015) was launched, via which the Gas and Electricity Authority also disciplines the technical and commercial quality of the energy distribution and sales services, including increasingly challenging elements in the performances set for the companies.

These aspects, mentioned in summary form, bear witness to the changes which have taken place over the last few years in Italy and the tension with regard to the expansion and consolidation of the results achieved in the development of network services, to the benefit of market operators and consumers alike.

In February 2012, Acea approved the new **Group Business Plan**, for the period 2012-2016. The Group's growth is defined according to five strategic lines which envisage: the enhancement of its position in the **regulated activities**, consolidating the position of leadership in the running of the integrated water services and the operating excellence in electricity distribution; the implementation of the projects already present in the Waste management area for the **entrepreneurial management of the waste** and the **development of additional new initiatives**; the attention towards **energy efficiency and the new technologies for managing the networks** (smart grids); the creation of **value for the shareholders** by means of the increase of the profitability of the businesses and the creation of a sustainable dividend plan; the improvement of the **debt position**, despite the presence of a significant investment plan, partly thanks to the activities for reducing outstanding loans.

In economic terms, the objectives set are to achieve annual growth in the **EBITDA of 6.2% so as to arrive in 2016 with a value of Euro 874 million. The investments envisaged in the five-year period amount to Euro 2.3 billion**, around 70% of which employed in the water sector and in electricity distribution.

The implementation of the strategies disclosed above is achieved by means of commitments and objectives at individual activity area level, illustrated in the following general points.

## STRATEGIC LINES OF THE ACEA 2012-2016 BUSINESS PLAN

business area	strategy
<b>waste management:</b> waste to energy and environmental services	<ul style="list-style-type: none"> <li>• completion of the projects already launched for the extension/revamping of the waste to energy, biowaste treatment and composting plants</li> <li>• development of new ventures, also under partnership with other operators</li> </ul>
<b>energy:</b> generation, supply and sale of electricity and gas	<ul style="list-style-type: none"> <li>• development of energy supply policies suitable for covering the sale and defending the commercial margins</li> <li>• optimisation of the customer mix and development of dual fuel offers</li> <li>• completion of the repowering of the hydroelectric plants and launch of the repowering of the Tor di Valle plant</li> </ul>
<b>water:</b> integrated water service (aqueduct, distribution, treatment, sewers)	<ul style="list-style-type: none"> <li>• consolidation of the leadership position in the Italian water market</li> <li>• investments for the existing networks and plants envisaged in the various Area Plans</li> </ul>
<b>networks:</b> electricity distribution, energy efficiency, technological innovation, public lighting service and photovoltaic	<ul style="list-style-type: none"> <li>• implementation of new smart grid projects</li> <li>• energy efficiency initiatives</li> <li>• modernisation measures and operating efficiency of the distribution networks</li> </ul>

## BUSINESS DEVELOPMENT IN 2012

### WATER

#### Italy and Abroad

- no new acquisitions or corporate equity investments were registered in the water sector in Italy or abroad while consolidation continued of existing operating activities. Following the launch of the regulatory activities of the AEEG (Gas and Electricity Authority) in the water sector, scenario studies and impact analysis were carried out on the activities inherent to aspects of the primary intervention of the Authority (provisional tariff, system data collation, bill information) and the institutional consultations on regulatory proceedings were participated in.

### NETWORK

#### Distribution

- technological innovation activities for the management of the networks (smart grids and energy accumulation batteries) are further developed and consolidated.
- further to experimental initiatives launched last year, by means of the agreement entered into with Rome City council and Enel, for the installation of an interoperable recharging network for electrical vehicles, the development of electrical mobility came into being in Rome.

### Photovoltaic

- at year end, Acea Reti e Servizi Energetici sold off the group of photovoltaic installations in Puglia, Lazio and Campania and maintained the activities for the design, construction and running of solar power installations on behalf of third parties.

#### Co-generation (combined production of electricity and thermal energy)

- the project management activities for the construction of the co-generation plants serving the business complex "Europarco" continued in line with the programme established by the customer. An application was presented for sole authorisation to construct and run the tri-generation plant for SOGEI (the Ministry for the Economy and Finance). The final planning has been completed for the initiatives inherent to the Laurentino shopping centre and the Cinecittà World theme park.

#### Public lighting

- the reorganisation of the activities relating to the management of public lighting was approved, envisaging the transfer of the Acea Distribuzione business segment to Acea Illuminazione Pubblica SpA, and identifying the latter as the party appointed to manage the service. A total of 2,387 new lighting units were installed, of which 559 using LED technology.

### ENERGY

#### Production

- repowering work was completed on the Salisano and Orte hydroelectric installation, for the purpose of the acknowledgement of green certificates, and they were re-started up;
- production from plants (thermo and hydroelectric) came to around 373 GWh, almost exclusively of renewable origin (around 97% from hydroelectric).
- energy produced by the waste to energy process involving WDF came to around 218 GWh (50% from renewable energy sources).

#### Sales

- Acea Energia customers with contracts on the eligible electricity market increased by 8% with respect to last year, and the number of customers which avail themselves of the company for the supply of gas is now close to 100 thousand;
- new products and services have been developed: the dual fuel offer supplemented by a service agreement for domestic installations; on-line apps for both PC and smartphones available to customers, for the immediate, customised and decentralised handling of a wide range of supply aspects (remote payments, sms/e-mail notifications, e-bills, own readings).

### WASTE MANAGEMENT

- with the full up and running of the two lines of the San Vittore del Lazio plant, around 220,000 tons of WDF were processed for the production of electricity;
- the operations of the WDF production plant at Paliano (FR) recommenced, after a shutdown of nearly two years, achieving around 22,000 tons of waste derived fuel;
- further to the agreement entered into between the Italian Ministry for the Environment and the corresponding ministry of the City of Mexico, Aquaser was selected for the implementation of a pilot project for the sustainable production of bioenergy, biofertilizer and treated water from biowaste. The plant will be completed during 2013.
- Aquaser guaranteed the handling of around 205,000 tons of waste from wastewater treatment of the main water companies in the Group, launching around 75% for recovery by means of composting and 4% by means of direct spreading in agriculture.

# Strategy and sustainability

## Acea: the values and the contribution towards sustainability

The planning and the provision of public utility services, such as those seen to by Acea, are fundamental activities for ensuring and furthering the social, environmental and economic development of a community.

Operating with a view to ensuring the fruition of essential services in line with the requests of the general public and with the dynamic needs of the economic operators, on a consistent basis with observance of the environmental features of the area, requires an in-depth knowledge of the related role and commitment.

In order to be up to this commitment, not only in terms of manpower and plants, but also and above all else rules of conduct, responsible guiding values and management systems - which link and provide long-lasting meaning to the daily acts - the Acea Group has endowed itself with **value codes, policies**<sup>15</sup> and **instruments** suitable for implementing the responsible governance of the business, also bearing witness to the same in the sustainability report.

### THE ACEA GROUP ETHICAL CODE, 2012 EDITION

The Ethical Code is a voluntary self-governance instrument via which Acea declares and expresses the values, principles and conduct-related standards which must guide its action and that of the stakeholders in the reciprocal dealings.

In the **new edition of the Group Ethical Code**, approved by Acea's Board of Directors in February 2012, and disclosed in April, outdating the previous 2004 edition, both the contents present in the previous edition of said *Ethical Code* and in other pre-existing value codes were **reconfirmed** and in some cases **more accurately defined**, integrating the contents of the *Values Charter* and the *Tender Ethics Code* as well **in a single document**. The concept of sustainability itself, for example, has been more appropriately analysed and included for the first time among the general ethical principles.

The document is constructed with a high level of detail in the **statement of the conduct** which is acknowledged positive or negative ethical valance **in dealings with the parties concerned** (employees and customers, shareholders and the market, institutions, public administration authorities, political parties and trade unions) and **specific sensitive matters** are dealt with (conflicts of interest, environment protection, competition, protection of the privacy of workers and customers).

Explicit references were also introduced to the duty of reporting violations and **a specific procedure was set up** which disciplines the methods for receiving, handling and analysing the reports, as well as the methods for reporting to senior management and the Ethics Committee.

<sup>15</sup> The complete versions of the value codes - Acea Group Mission, Quality, Environment, Safety and Energy Policy, Group Ethical Code, Protection Policy are available on the company intranet and on the website [www.acea.it](http://www.acea.it)

**TABLE NO. 10 - ACEA INSTRUMENTS FOR SUSTAINABLE DEVELOPMENT AND SOCIAL RESPONSIBILITY**

		1998-99	2000-01	2002	2003	2004-05	2006	2007-08	2009	2010	2011	2012
<b>PROCEDURES, RULES AND VALUES</b>	Service Charter	•	•	•	•	•	•	•	•	•	•	•
	Company mission and Environmental Policy	•	•	•	•	•	•	•	•	•	•	•
	Regulations protecting the dignity of men and women	•	•	•	•	•	•	•	•	•	•	•
	Quality Policy	•	•	•	•	•	•	•	•	•	•	•
	Code of best practice	•	•	•	•	•	•	•	•	•	•	•
	Values Charter		•	•	•	•	•	•	•	•	•	
	Ethics Committee				•	•	•	•	•	•	•	•
	Tender Ethic Code				•	•	•	•	•	•	•	•
	Organization, management and control model pursuant to Italian Legislative Decree No. 231						•	•	•	•	•	•
	Ethical Code						•	•	•	•	•	•
	SGLS (UNI-INAIL guidelines)- Safety Policy						•	•	•	•	•	•
	Quality and environmental certification and EMAS registration	•	•	•	•	•	•	•	•	•	•	•
	Corporate protection Policy									•	•	•
	OHSAS and Safety Policy									•	•	•
	Quality, Environment, Safety and Energy Policy											
<b>REPORTING</b>	Social Report and Environmental Report	•	•	•								
	Sustainability report			•	•	•	•	•	•	•	•	•
	COP drafting for Global Compact								•	•	•	•
<b>FEEDBACK</b>	Customer satisfaction	•	•	•	•	•	•	•	•	•	•	•
	On-line feedback		•	•	•	•	•	•	•	•	•	•
<b>MEMBERSHIPS AND RATING</b>	WEC membership					•	•	•	•	•	•	•
	CSR manager network membership						•	•	•	•	•	•
	Global Compact membership							•	•	•	•	•
	Sustainability rating		•	•	•	•	•	•	•	•	•	•

The reflection which Acea dedicates to the concepts and applications of corporate social responsibility and sustainability, is also appropriately guided by the developments which these matters experience, at national and international level, in academic, institutional and industrial spheres. In 2012, **two important public initiatives** were undertaken. The first was **the definition, by the Italian Government, of a National action plan on CSR**, used to formulate, thanks to extensive discussion with the parties concerned, the policies and the positions to be developed in the country on the subject, also in observance of the strong promoting boost of the European Union, which constantly confirms the decisive role of CSR in future policies. The second initiative, just as

significant, was **the creation by the Italian Antitrust** of the **legality rating** instrument, which offers economic operators active in Italy effective advantages, in terms of bankability and access to public funding, for those who, amongst other aspects, demonstrate that they internalise corporate social responsibility principles and practices (see related Box). At international level, 2012 was the year of the ONU conference on sustainable growth "Rio+20", named thus as it was held at a distance of 20 years from the first world summit on the subject held in the same city, Rio de Janeiro. During this summit - details of which are provided in the dedicated box in the section *Environmental issues* - the themes of green economy and global governance for sustainable development were developed.



## THE NATIONAL ACTION PLAN ON CORPORATE SOCIAL RESPONSIBILITY (PAN-RSI)

Towards the end of 2012, in response to the Communication of the European Commission No. 681/2011 (*Renewed strategy of the EU for the period 2011-2014 regarding the social responsibility of companies*), the Italian Government presented its **National Action Plan on Corporate Social Responsibility for the two-year period 2012-2014**. This document, implemented under the auspices of the Department of Labour and Social Policies and the Ministry for Economic Development, first and foremost represents an official summary of the best CSR practices and experiences implemented throughout Italy by public bodies, local authorities, individual or organised companies, research centres, civil society and the tertiary sector. Starting off from this wealth of abundant experience, the Plan's aim is to outline priority action and measures aimed at pursuing at national aggregate level, with the participation of the stakeholders, sustainability objectives consistent with the wider EU design.

These objectives are listed in **six points**: 1) **increasing the culture of responsibility** care of the companies, citizens and area communities; 2) **supporting the companies** who adopt CSR; 3) **contributing towards the enhancement of the market incentives** for CSR; 4) **furthering the initiatives of the social companies**, the third sector and active citizen organisations, and civil society; 5) **encouraging the accountability and disclosure** of economic, financial, social and environmental information; 6) **furthering the CSR** via instruments recognised at international level and international co-operation.

For the purpose of making support for the National action plan more abundant and widespread and in consideration of the multi-disciplinary nature of the subject matters, the government submitted the document for public consultation, requesting the contribution of every party involved, so as to subsequently bring a position which expresses all the aspects of the country system on CSR to the attention of the European bodies, for the very first time.

## LEGALITY RATING

The Italian Decree Law on "**Liberalisation**" dated 2012, as amended and converted finally by Italian Law No. 62/2012, added to the tasks of the Anti-trust authority as an institution suitable for "furthering the introduction of ethical principles in corporate conduct. In this connection, besides being able to report to national parliament on the law amendments useful for providing a boost to business ethics, the Authority has been appointed to draw up and assign a **legality rating** system which furthers a renewed, qualified and rewarding observance of the ESG (environmental, social, governance) requirements by companies. The assignment of the rating, in fact, as envisaged by the implementing regulations issued by the same Authority, shall have significant effects on the **granting of public funding and access to bank lending**. In order to obtain these benefits, the companies who present an application to the Anti-trust authority shall have to demonstrate possession of specific requisites, some of which fundamental as follows: the absence of sentences inflicted with regard to anti-trust, tax matters and with regard to health and safety in the workplace in the two years prior to the request, the correct payment of remuneration and welfare, social security and insurance contributions, as well as compliance with Italian Legislative Decree No. 231/01.

The observance of the afore-mentioned stringent requirements will make it possible for the company to see itself awarded a basic rating which may be increased in concurrence with the existence of additional rewarding elements. Among these, the regulations have included **the adoption of processes aimed at guaranteeing forms of corporate social responsibility and the inclusion of sustainability indexes**.

The impact of these new provisions, which as mentioned will affect the bankability of the companies, extended the methods for assessing the corporate operations, not limiting the same to economic and financial results, but contemplating aspects of legality, management correctness and principles of sustainability.

## Sharing of the corporate social responsibility themes

The choice made by Acea to aspire its activities to the principles of corporate social responsibility and sustainability, translates into the definition of company policies and strategies aimed at guaranteeing the balanced comparison with the parties concerned, within an inclusive logic. Reflection on sustainability in the economic, social and environmental sphere and on its possible future scenarios is carried out by means of Acea's participation in contexts rich in stimulus, such as think tanks, networks, important

ventures organised by academic circles, civil society, institutions or other national and international companies. Among the 2012 ventures, the company:

- confirmed its compliance with the CSR Manager Network, operative for some years on Altis-Università Cattolica and Isvi initiatives, together with the main Italian companies active with regard to sustainability, taking part in the encounters organised during the year;

- confirmed its compliance with the principles issued by the *Global Compact*, taking part actively in encounters and seminars organised by the Italian Network. Specifically, during 2012, Acea took part in the Sustainable Supply Chain Work Group, active within the sphere of the supply chain (see related box for details);
- took part in the *2012 CSR Forum* organised by ABI, an annual appointment on the subject of Corporate Social Responsibility in which representatives from national and international institutions and the leading experts in the sector take part;
- took part - both as sponsor and speaker - in the post-university masters courses dedicated to the subject of sustainable development and handling of corporate responsibility: a masters in *Management and corporate social responsibility* organised by the Pontificia Università San Tommaso d'Aquino - Angelicum, a masters in *Management and regulation of sustainable energy* organised by LUISS, a masters in *Environmental management and control: Efficient management of the sources*, organised by the Scuola Superiore di Studi Universitari Sant'Anna di Pisa, a masters in *Management of energy and the environment*, organised by the Sole 24 Ore Business School, and a masters in *Green Management, energy and corporate social responsibility*, organised by Bocconi University Milan;
- took part in two important studies in the water and electricity sector: *The reform of the regulation of water services in Italy*, created by IEFE-Università Bocconi and *The improvement of the Market Design in relation to the forecast requirements of the system*, carried out by the Economic and Finance Research Institute REF);
- followed the main conventions and seminars on various subjects pertaining to sustainability.

#### ACEA IN THE SUSTAINABLE SUPPLY CHAIN WORK GROUP AS PART OF GLOBAL COMPACT NETWORK ITALIA

The Supplier Rating and Qualification Unit, within Acea SpA's Safety and Protection Division, took part during 2012 – together with the Corporate social responsibility and sustainability unit - in the Sustainable Supply Chain Work Group, set up within the sphere of Global Compact Network Italia, which Acea has been a member of for some years.

Recognising the importance that the supply chain has in contributing towards the improvement of the sustainability performances of the companies and their overall competitiveness and in line with the matters envisaged by the UN Global Compact with reference to the scope of application of the ten principles furthered by the initiative, the Work Group proposed to **share and implement an instrument for the monitoring of the sustainability performances of the companies belonging to the supply chains of the Network members**, defining and implementing mechanisms to support the sustainability performances of the companies and encouraging the suppliers to adopt the best practices, in terms of observance of human rights, labour rights, environmental responsibility and business ethics.

With a view to this, for the purpose of pursuing the afore-mentioned objectives, the Work Group is defining and agreeing on a **supplier appraisal questionnaire** and also intends to implement a system for sharing the information obtained between the Network members.

Acea is also observed from outside and assessed with regard to its CSR performances (also see Shareholders and financial backers, section *Ethical finance*).

In detail, during the year the company **received the CEEP CSR Label 2012-2013**, a prestigious acknowledgement, furthered by the European Commission and the European Centre of public utility services companies (CEEP), for supporting and turning to account the development of CSR practices (see related box). It then subjected itself, as it has for some years now, to the assessment carried out by the **Carbon Disclosure Project (CDP)**, an international initiative launched by *Rockefeller Philanthropy Advisors* of New York and supported by around 400 institutional investors, aimed at **evaluating the strategies** put together by the companies in order to **deal with the phenomenon of climate change**: the Acea "disclosure" received

a score of **81/100**, up with respect to last year (67/100) (also see *Environmental aspects*). In conclusion, Acea took part in the first edition of the Top Utility Award 2012 held with the aim of **analysing the system of public utility companies in Italy** - the companies involved in public utility services: electricity, gas, water and waste management - assessing the performances **with an integrated view to economic, financial, social and environmental sustainability**. The survey assessed the leading 100 Italian public and private utility companies, in light of *sustainability, efficiency, cost-efficiency, ethical, service quality and consumer attention* criteria, in order to identify and **develop the aspects of excellence** of a crucially important sector due to its impact on the community and the area. **Acea was selected from amongst the top 5 Italian companies for the Sustainability category.**

## ACEA ACKNOWLEDGED THE CEEP CSR LABEL 2012-2013 FOR GOOD CORPORATE SOCIAL RESPONSIBILITY PRACTICES

In November 2012, at the headquarters of the European Parliament in Brussels, Acea was awarded the **"CEEP CSR Label"**, for the two-year period **2012-2013**.

The prestigious acknowledgement, furthered by the European Commission and the European Centre of public utility services companies (CEEP), was established in 2008 to support and turn to account the development of Corporate Social Responsibility (CSR) practices among companies supplying local public services in Europe. Every two years, the CEEP furthers the initiative and the companies which aspire to the *Label* must submit themselves to **assessment by the Scientific Committee**, which carries out an accurate analysis of all the documentation received, requesting any clarification. For the 2012 edition, the Committee availed itself of **94 participating companies**, mainly German, French, Italian, Portuguese, Belgian and Swedish **23 companies were awarded the "CEEP CSR Label"**, which certifies the adoption of "sustainable" management criteria and an entrepreneurial approach capable of combining the needs for economic profitability, environmental protection, social safeguarding and legitimization by the community.

Acea, who has been awarded the Label since 2008, saw its commitment rewarded once again this year. Particular appreciation was in fact shown for the various initiatives presented to CEEP and three of these - one linked to the subject to **biodiversity protection** and two attributable to the same commitment of **reducing electromagnetic field emissions** - were briefly illustrated in the publication **Best CSR practices in Public Service 2012**, a selection of the European excellences with regard to CSR.



## The 2012-2016 sustainability objectives

The Group's sustainability objectives, for the first time **identified for the mid-term 2012-2016**, are shown, in summary form, in a layout which shows **the challenges, the prospects and the action undertaken** during 2012, placing them in relation to the interests of the stakeholders. These objectives, consistent with the matters indicated in the 2012-2016 Strategic Plan<sup>16</sup> (see

*Development and Strategic Plan*) were drawn up by the heads of the business segments and the Divisions involved and approved by the Managing Director. The information concerning the action carried out during the year under review, indicated in the table, is more fully described within the sections of the report.

<sup>16</sup> Acea SpA's Board of Directors approved the Group Business Plan for the period 2012-2016 during the meeting held on 22 February 2012.

## THE 2012-2016 SUSTAINABILITY OBJECTIVES

CHALLENGES	MID-TERM OBJECTIVES (2012-2016)	MAIN ACTION IN 2012
<b>SHAREHOLDERS</b>		
<b>Guarantee the remuneration of the capital provided by the shareholders, consolidating the competitive advantage in the reference businesses (regulated and deregulated activities) over the mid-term</b>	<b>Waste management:</b> <b>EBITDA 2016: 112 mil</b> <b>2012-2013</b> <ul style="list-style-type: none"> <li>increase the quantity of waste treated in waste to energy plants;</li> <li>increase the anaerobic treatment capacity of the organic waste at the Orvieto plant installation;</li> <li>expand the biological mechanical treatment capacity for the production of WDF at Paliano;</li> <li>construct a slag treatment plant at the San Vittore del Lazio plant</li> </ul>	<p>the EBITDA of the waste management area amounted to Euro 49.3 million, up 55% with respect to the Euro 37.7 million in 2011</p> <ul style="list-style-type: none"> <li>launch of the first phase of the extension of the Orvieto landfill; activities continued necessary for the implementation of an anaerobic treatment line for organic waste</li> <li>conclusion of renovation work on the Terni waste to energy plant</li> <li>re-launch of activities at the Paliano WDF production plant.</li> <li>continuation of authorisation course for slag treatment plant at the San Vittore del Lazio plant</li> <li>continuation of the authorisation course for extension of the Kyklos plant and the new Solemme plant</li> </ul>
	<b>2015</b> <ul style="list-style-type: none"> <li>achieve the re-launch into service of line 1 of the San Vittore del Lazio waste to energy plant;</li> <li>increase the production of WDF at the Paliano plant.</li> <li>launch the new anaerobic digestion unit of the Kiklos composting plant and launch the new anaerobic digestion and composting plant of Solemme</li> </ul>	
	<b>2016</b> target quantity of waste treated: <ul style="list-style-type: none"> <li>320,000 tons per annum (San Vittore)</li> <li>100,000 tons per annum (Terni)</li> <li>over 50,000 tons per annum (Paliano)</li> </ul>	
	<b>Energy:</b> <b>EBITDA 2016: 110 mil</b> <b>2012-2014</b> <ul style="list-style-type: none"> <li>modernise the group of electricity installations and make them efficient</li> </ul>	<p>the EBITDA of the energy area amounted to Euro 61 million, in line with respect to 2011 balances (Euro 61.4 million)</p> <ul style="list-style-type: none"> <li>improvement action was carried out for the handling of the credit;</li> <li>repowering work was completed on the Salisano and Orte hydroelectric installations and the procedure for the repowering of the Castel Madama plant was started.</li> </ul>
	<b>Water:</b> <b>EBITDA 2016: 396 mil</b> <b>2012-2015</b> <ul style="list-style-type: none"> <li>monitor and compare the performances of Acea Ato 2 with respect to the main comparables so as to gain indications aimed at continual improvement</li> </ul>	<p>the EBITDA of the water area amounted to Euro 349 million, up 7.8% with respect to the Euro 323.7 million in 2011</p> <ul style="list-style-type: none"> <li>Acea Ato 2 has carried out comparative studies and analysis, with the support of leading research institutions, so as to plan improvement action</li> </ul>
<b>Networks:</b> <b>EBITDA 2016: 260 mil</b> <b>2012-2016</b> <ul style="list-style-type: none"> <li>continue with the renovation of 950 km of MV underground electricity lines - voltage change from 8.4 kV to 20 kV</li> <li>carry out measures on the HV electricity lines as per the Acea Distribuzione, Terna and Rome City Council Memorandum of Intent</li> <li>achieve the LV network voltage change which supplies 60,000 customers from 230 V three-phase to 400 V three-phase.</li> <li>implement the Smart grid pilot project and other smart applications so as to improve the service quality</li> </ul>	<p>the EBITDA of the networks area amounted to Euro 260.7 million, down 3.3% with respect to the Euro 269.6 million in 2011</p> <ul style="list-style-type: none"> <li>renovation of the underground MV electricity lines continued; reduction of the physical energy losses achieved, estimable at around 8.0 MWh;</li> <li>procedure for obtaining the authorisation necessary for the execution of the work continued;</li> <li>the new "Parchi" primary station in the Castel Romano industrial complex was constructed and started up and work was launched for the creation of the 150kV underground electricity line "Casal Palocco – Vitinia"</li> <li>LV network voltage change carried out for approximately 7,240 customers. Increase in the transportation capacity achieved and physical energy losses reduced.</li> <li>measures envisaged by the Smart grid project carried out</li> </ul>	

<b>Monitor the adequacy and functioning of the internal audit and risk management system and encourage the adoption of audit models in line with the best national and international practices</b>	<p><b>Holding (Audit division)</b> <b>2012-2016</b></p> <ul style="list-style-type: none"> <li>• arrange and propose the Policies of the Internal audit and risk management system</li> <li>• support the appointed director for the adoption of the System</li> <li>• support the Supervisory Body (parent company and subsidiary companies) in the updating of the Organisation and management models and the supervision of the effectiveness and adequacy of the same</li> <li>• support the Ethics Committee in overseeing the implementation and observance of the principles expressed in the Ethical Code</li> </ul>	<ul style="list-style-type: none"> <li>• new policies for the adoption of the Code of Best Practice approved by the BoD</li> <li>• the Organisation and Management Models of the subsidiary companies adapted, including environment offences</li> <li>• analysis carried preliminary to the update for fighting against corruption</li> <li>• the new edition of the Ethical Code approved by the BoD, subsequently also disclosed by means of intense training activities which also concerned Italian Legislative Decree No. 231/01</li> <li>• the procedure for the handling of reports (whistleblowing) drawn up, adopted and disclosed</li> </ul>
<b>Support management in the identification and assessment of the risks which may compromise the achievement of the objectives defined by the BoD and encourage the adoption of informed decisions by those responsible</b>	<p><b>Holding (Audit division)</b> <b>2012-2016</b></p> <ul style="list-style-type: none"> <li>• keep the list of the main Acea risks and those of the subsidiary companies up-to-date by means of the "Control Risk Self Assessment" model (CRSA)</li> <li>• support the managers in the identification and assessment of the risks and controls; share the risk analysis and support the managers in the identification of improvement action</li> <li>• draw up risk reports for the BoD;</li> <li>• consolidate the action plans drawn up by the managers further to the audit reports and monitor the implementation thereof</li> <li>• draw up a plan of the audit activities to be proposed to the BoD</li> </ul>	<ul style="list-style-type: none"> <li>• support was provided to the competent divisions for the definition of points of control to be included in the Sponsorship and donations and Company credit card management procedures.</li> <li>• reports were drawn up on the main risks shared with senior management, the Audit Committee and the Board of Statutory Auditors</li> <li>• policies defined for the preparation of "risk based" reporting to the Audit division</li> <li>• "risk based" Audit Plan drawn up and approved</li> </ul>
<b>Check, on the basis of the approved Audit plan, the observance of the applicable legislation, the internal policies and procedures, as well as the efficiency and efficacy of the processes analysed</b>	<p><b>Holding (Audit division)</b> <b>2012-2016</b></p> <ul style="list-style-type: none"> <li>• monitor observance of the action plans issued further to the audit reports</li> </ul>	<ul style="list-style-type: none"> <li>• operational audit reports and audit reports for the checks on the basis of Italian Legislative Decree No. 231/01 issued</li> </ul>
<b>Maintain the investor relations system at optimum levels of transparency and correctness</b>	<p><b>Holding (Investor Relations division)</b> <b>2012-2016</b></p> <ul style="list-style-type: none"> <li>• further financial disclosure addressing the market in observance of the principles of correctness, accountability and parity of information between all the parties concerned (general public without distinction, analysts, Italian and foreign investors).</li> <li>• retain the loyalty of the body of shareholders, ensuring a continuous, prompt and useful information flow for the correct assessment of the investment.</li> <li>• develop the Group objectives for the purpose of sustainability, with consequent improvement of the corporate image, efficiency in the use of the resources, greater ability to dialogue with the reference area</li> </ul>	<ul style="list-style-type: none"> <li>• one-to-one meetings held with Italian and international investors, along with conference calls with the market and presentations extended to Italian and foreign investors/analysts.</li> <li>• constant updating of the company website ensured with the economic/financial information relating to the Acea Group.</li> <li>• prompt, correct and transparent communication guaranteed to the current and potential shareholders, with divulgation of press releases and promotion of extended encounters, conference calls and meetings.</li> <li>• collaboration with competent division carried out, strengthening relations with ethical finance analysts</li> </ul>

## CUSTOMERS AND THE COMMUNITY

<b>Improve relations with the customer by means of the development of advanced management systems and enhancement of the contact channels</b>	<p><b>Holding company</b> <b>2012-2016</b></p> <ul style="list-style-type: none"> <li>• develop a management system for relations with the customer (CRM) which will progressively involve the main operating companies</li> </ul>	<ul style="list-style-type: none"> <li>• number of operators and counters care of the public hall in Piazzale Ostiense increased</li> </ul>
	<p><b>Energy</b> <b>2012-2016</b></p> <ul style="list-style-type: none"> <li>• improve access to the contact channels and progressively reduce the average waiting time at the physical counter</li> </ul>	

	<p><b>Water</b></p> <p><b>Acea Ato 2</b></p> <p><b>2012-2016</b></p> <ul style="list-style-type: none"> <li>• Send 100% of the bills within the scheduled timescales;</li> <li>• achieve and maintain the commercial quality parameters envisaged by the Service Charter;</li> <li>• Fast Bill Project: <ul style="list-style-type: none"> <li>(2012) issue of bill in real time by meter reader;</li> <li>(2013) experimental launch of first perimeter of customers (approx. 30,000);</li> <li>(2014) further extension of the perimeter</li> </ul> </li> </ul> <p><b>2012</b></p> <ul style="list-style-type: none"> <li>• increase the number of counters outside Rome</li> </ul> <p><b>2013-2014</b></p> <ul style="list-style-type: none"> <li>• progressively reduce the contacts at the Ostiense physical counter. At least -5%; in 2013</li> </ul> <p><b>Acea Ato 5</b></p> <ul style="list-style-type: none"> <li>• insource the level II contact center for the direct company-customer management of water problems</li> </ul> <p><b>Networks</b></p> <p><b>Acea Distribuzione</b></p> <p><b>2012</b></p> <ul style="list-style-type: none"> <li>• increase the complaint response capacity</li> <li>• second generation digital meters project (2012); analysis of individual reachability problems and experimentation of solutions (2013-2014) study, planning and experimentation in the field of second generation digital meters; (2015-2016) project roll out</li> </ul> <p><b>2012-2016</b></p> <ul style="list-style-type: none"> <li>• Ultimo Miglio/ network mapping project</li> <li>• increase the number of operators and branches care of the public hall in Piazzale Ostiense</li> </ul>	<ul style="list-style-type: none"> <li>• Acea Ato 2 has paid particular attention to the aspects linked to billing of the customer (all carried out in the envisaged timescales) and has enhanced the prevention service for the "first-time customers", managing to deal with all the quotation requests in the timescales envisaged by the Service Charter</li> <li>• issue of the bill in real time by the meter reader activated</li> <li>• two new counters at Fiano and Frattocchie activated</li> <li>• during the year, Acea Ato 5 activated the level II contact center for the direct management of water problems</li> <li>• the handling of claims has been centralised and enhanced</li> <li>• analysis of the individual problems was carried out</li> <li>• the process for the development and test &amp; inspection of automatic detection system was launched</li> </ul>
<p><b>Simplification of the customer care processes and directing of customer towards the remote channel</b></p>	<p><b>Acea Energia</b></p> <p><b>2012-2016</b></p> <ul style="list-style-type: none"> <li>• improve the legibility of the energy bill by means of a new graphic layout for customers of the eligible and protected market (electricity and gas)</li> <li>• enhance the web self service for eligible and protected market customers</li> <li>• introduce functions on APPs</li> </ul> <p><b>2013</b></p> <ul style="list-style-type: none"> <li>• extend the possibility of communicating the self-readings of the meter</li> </ul> <p><b>Acea Ato 2</b></p> <p><b>2012</b></p> <ul style="list-style-type: none"> <li>• activate transfer, take-over, cancellation requests, personal data changes on-line</li> </ul> <p><b>2013</b></p> <ul style="list-style-type: none"> <li>• reduce/simplify the documentation to be presented for simple commercial requests (contracts, transfers)</li> <li>• active quotation requests, credit card payments on-line</li> <li>• introduce the "Virtual Teller ": <ul style="list-style-type: none"> <li>(2013) 2 terminals at the Ostiense counter;</li> <li>(2014) progressive transfer to the counter «outside Rome»</li> </ul> </li> </ul> <p><b>2014</b></p> <ul style="list-style-type: none"> <li>• reduce/simplify the documentation to be presented for complex commercial requests (quotations)</li> <li>• integrate the web platform with the new Neta H2O system</li> </ul>	<ul style="list-style-type: none"> <li>• make the presentation of the readings and the consumption on the bill more rational</li> <li>• activate numerous services on the on-line counter</li> <li>• on-line payment by credit card, display of bill and handling of record file details</li> <li>• during the year, activate new on-line counter functions</li> <li>• analysis was carried out on the process problems and procedural technical solutions were identified</li> </ul>

**Acea Distribuzione**

**2012-2016**

- improve the process for reading electricity consumption care of customer and data transmission to seller

**2013**

- create a web portal for the monitoring of the Public Lighting contract by Rome City Council and for citizens' reports

<p><b>Periodically survey customer satisfaction</b></p>	<p><b>Holding Company (Institutional Affairs Division)</b> <b>2012-2016</b></p> <ul style="list-style-type: none"> <li>• periodically sound out the opinion of the customers regarding the quality level perceived for each service provided</li> </ul>	<ul style="list-style-type: none"> <li>• at total of 34,000 interviews were carried out, in two six-monthly cycles (around 15,000 for the services provided in Rome). The surveys also sounded out the customers with regard to their expectations, in order to implement an on-going improvement strategy</li> </ul>
<p><b>Express the Public Utility mission also by means of involvement in the social context</b></p>	<p><b>Holding Company (External relations and communication division)</b> <b>2012-2016</b></p> <ul style="list-style-type: none"> <li>• support cultural, artistic and sporting activities benefiting the community and contribute towards supporting non profit associations and ventures</li> </ul> <p><b>2012-2016</b></p> <ul style="list-style-type: none"> <li>• raise the awareness of customers and citizens with regard to the correct use of water and energy resources</li> <li>• develop targeted disclosure/training projects, in collaboration with public institutions (schools/universities);</li> <li>• plan educational and promotional initiatives and events.</li> <li>• enhance the company website by means of contents on sustainability</li> <li>• improve the promptness and completeness of the on-line contents, facilitating access thereto.</li> <li>• adopt the ISO 20121-2012 standard (Sustainable events management system) for the organisation of the events pertaining to Acea</li> </ul>	<ul style="list-style-type: none"> <li>• there were numerous cultural, artistic and sporting initiatives benefiting the community, and steps were taken to contribute towards supporting non profit ventures of social interest</li> <li>• initiatives were put together to raise the awareness of youngsters with regard to the correct use of water and energy resources (for example: Acqua Spreco Zero; Volley scuola; Impariamo dall'acqua; Rinnatural)</li> <li>• visibility and frequency of news was increased with regard to sustainability, publishing it on the company website;</li> <li>• the web page section dedicated to Group sustainability was renewed and updated, in synergy with the CSR and sustainability unit</li> <li>• the on-line version of the Sustainability report was made available on the dedicated website</li> <li>• experimentation for the handling of "sustainable events" was included in the "2013 communications plan"</li> </ul>

**SUPPLIERS**

<p><b>Progressively introduce elements suitable for developing the quality, environmental protection and safety aspects in the supply of goods, services and work, maintaining a good price/quality ratio</b></p>	<p><b>Waste management</b> <b>2013-2016</b></p> <ul style="list-style-type: none"> <li>• carry out at least 10 audits a year on observance of environmental and safety legislation at the work sites and installations where the suppliers work.</li> <li>• computerised monitoring of the compliance of the main suppliers, shared between the various company divisions</li> </ul> <p><b>Holding Company (Safety and Protection Division)</b> <b>2012-2016</b></p> <ul style="list-style-type: none"> <li>• define and implement a "vendor rating" system in an extended manner, on the model currently operative for the work in the energy area, by the end of 2013.</li> <li>• extend the inspection activities also care of suppliers of goods and services</li> </ul> <p><b>Holding Company (Purchasing and Logistics Division)</b> <b>2012-2016</b></p> <ul style="list-style-type: none"> <li>• improve the efficiency of the supply chain</li> <li>• develop Green Procurement for the supply of the commodities' categories included in the National Action Plan for the GPP</li> </ul>	<ul style="list-style-type: none"> <li>• audits were carried out care of firms which perform the leachate liquid (landfill) withdrawal, transportation and disposal service and care of a number of work suppliers. No irregularities or non-compliances emerged;</li> <li>• a list of qualified suppliers for disposal activities has been drawn up</li> <li>• the rating model was drawn up and inspection activities launched care of the suppliers of electrical and water works (30 inspections) with regard to quality, environment and safety</li> <li>• the efficiency of the IT systems was increased to raise control and fluidity of the supply chain: in detail, the SAP adaptation continued and the IT platform (Pleiade) for the handling of on-line tenders was improved;</li> <li>• new selection criteria has been introduced for entrusting the tender contracts for work, which will have an effect in particular on the assessment of the fairness of the offers;</li> <li>• criteria has been defined for monitoring both the stage of progress of the initiatives undertaken by the individual Divisions/Companies, and the overall corporate performance on Green Procurement</li> </ul>
---	--	--

## HUMAN RESOURCES

<p><b>Focus on efficiency and the professional qualification of the employees</b></p>	<p><b>Holding Company (Human Resources and Organisation Division)</b></p> <p><b>2012-2016</b></p> <ul style="list-style-type: none"> <li>implement a new Human Resource management System based on merit and assessment objectivity (Performance &amp; Leadership System – P&amp;L)</li> <li><b>(2012-2014)</b> involve all the executive and middle managers; develop targeted training initiatives and implement a disclosure system supporting the P&amp;L process;</li> <li><b>(2014-2016)</b> extend to white and blue-collars and expand the collation of <i>curriculum vitae</i></li> </ul> <p><b>2012-2013</b></p> <ul style="list-style-type: none"> <li>Job Levelling Project</li> </ul> <p><b>(2012-2014)</b></p> <ul style="list-style-type: none"> <li>launch development projects for individual population</li> </ul> <p><b>2013-2014</b></p> <ul style="list-style-type: none"> <li>launch Talent project</li> </ul> <p><b>2013-2016</b></p> <ul style="list-style-type: none"> <li>put together Community and professional Networking events</li> </ul>	<ul style="list-style-type: none"> <li>dedicated work groups have defined the new Human Resource Management System, which has been agreed on, during an event, with senior management;</li> <li>events were held for sharing/training and experimentation on the new Human Resource Management System addressing all the Group management (463 individuals involved);</li> <li>500 employees assessed in the P&amp;L system and the management review was carried out on 102 executives;</li> <li>specific training was provided to develop managerial skills in the valuation of the co-workers and handling of the feedback (4 sessions, 64 hours, 160 individuals involved); a support manual was drawn up and distributed and an information system supporting the P&amp;L process was implemented</li> <li>428 CVs of Group executives and middle managers were gathered together and input in the centralised databases</li> <li>a Job Levelling Project and, care of Acea Energia, a Team Coaching Project have been launched (40 individuals involved, 173 hours of training provided, including seminars and coaching)</li> </ul>
<p><b>Create training courses consistent with the Human Resource Management System adopted, aimed at increasing the human capital skills</b></p>	<p><b>Holding Company (Human Resources and Organisation Division) and the operating companies of the 4 business segments</b></p> <p><b>2012-2016</b></p> <ul style="list-style-type: none"> <li>create training courses for all the Group companies, with a view to synergy, integration, efficiency and economic savings, placing the human capital in a central position also so as to improve the company climate.</li> <li>plan training courses on transversal-type contents (e.g. Ethical Code) and those of importance for the company, in order to encourage the spreading of a specific organisational culture</li> </ul>	<ul style="list-style-type: none"> <li>the training provided during the year envisaged, in total, more than 500 courses, for around 1,000 editions and a total of 94,302 training hours provided. Training involved a total of approximately 14,600 participants; these included around 6,500 employees who followed - via e-learning - training on the new Acea Group Ethical Code, on Italian Legislative Decree No. 231/2001 and on Privacy, launched on the new Pianetacea platform</li> </ul>
<p><b>Ensure a satisfactory internal climate, by means of observance of workers' rights and feedback in relation to their opinions</b></p>	<p><b>Holding Company (Human Resources and Organisation Division)</b></p> <p><b>2012-2014</b></p> <ul style="list-style-type: none"> <li>carry out internal climate surveys so as to monitor the satisfaction indices of the employees and identify effective improvement action to be implemented subsequently</li> </ul> <p><b>2013</b></p> <ul style="list-style-type: none"> <li>further and implement the development of company welfare via guidelines agreed at Group level</li> </ul>	<ul style="list-style-type: none"> <li>executives and middle management in the Human Resources and Organisation Division have been assigned a 2012 performance target based on the degree of satisfaction detected with regard to the services provided by said Division</li> <li>a survey was carried out on the satisfaction of the HR services in Acea Distribuzione via questionnaires handed out to all the executives and middle management and to a sample of white and blue-collars</li> <li>a work process was launched for the recognition of the benefits existing in the Group and the welfare initiatives already outstanding and basic analysis was performed</li> </ul>



#### 2013-2016

- create intergenerational (ageing) projects
- work on the creation of the Group culture, improving the organisational climate
- encourage an industrial relations model based on prevention of conflicts
- oversee and encourage the spreading of a participative culture also with the involvement of stakeholders at area level
- agree on negotiation processes with the trade unions in order to encourage the turning to account of the professional skills and experience present within the Group using the instrument of infragroup mobility of the resources
- ensure the efficacy of the management system for the Workers' Safety Representatives at Group level

- internal partnerships were launched for the planning of the first initiatives to be undertaken for the effective transmission of the knowledge and skills through the generations
- numerous encounters were held for the renewal of the relevant contracts expiring as of 31 December 2012
- a protocol regarding apprenticeships was entered into between Acea, Federutility and the national trade unions
- a protocol was signed regarding Water tender contracts and the work of the joint Commission was launched for the monitoring of the trend in Acea Ato 2 contracts
- agreements were signed with regard to infragroup mobility and the trend in staff secondments which occurred during 2012 was monitored
- an agreement was signed for the appointment of the Worker's Safety Representatives at Group level and the regulations for exercising the authority are being completed

### Improve the health and safety in the work place levels, favouring the diffusion of certified Management Systems

#### Holding Company (Safety and Protection) and the operating companies of the 4 business segments

##### 2012-2016

- Maintain / extend the OHSAS18001 Management Systems
- Computerisation of the mandatory fulfilments of the employer

#### Energy

- make the company a "non-smoking company", at the forefront in the policies aimed at furthering the quality and protection of health in the workplace

##### 2013-2014

develop action for promoting health:

- create a Campaign against smoking in collaboration with INAIL and LILT
- create a Campaign concerning healthy eating habits and lifestyle with the support of experts in the field, involving at least 20 individuals in 2014 (10% of the total)

- a new strategic document has been issued within Acea which in an integrated manner defines the "Quality, Environment, Safety and Energy Policy" of the Group
- the activities envisaged within the framework of the Management Systems for maintenance of the OHSAS18001 Certification already present within Acea SpA and the operating companies, have been carried out. In December 2012, the Sgsl (work safety management system) was introduced at the San Vittore del Lazio (Waste Management) and certified as per the OHSAS 18001:2007 standard
- the system for the computerisation of the mandatory fulfilments of the employer was established
- 8 encounters were held with groups of employees who voluntarily chose to take part in a "Give up smoking course", with the assistance of experts from LILT (Italian Association for the Fight against Tumours)

## WASTE MANAGEMENT

### Reduce the consumption of energy and natural resources

#### Water

##### Laboratori

##### 2012-2016

reduce electricity and water consumption:

- 5% less electricity with respect to the 2010-2011 average (equal to 1,150 MWh a year)
- 5% less water with respect to the 2010-2012 average value (equal to 25,000 m<sup>3</sup> a year)
- reduce the specific production of waste for analysis:
- 10% less with respect to the 2010-2011 average value (equal to 19.5 g of waste for analytical assessment)

##### Acea Ato 2 e Acea Ato 5

- carry out energy efficiency measures care of the two companies for a value equal to at least 1% of annual consumption

- guidelines have been defined for the monitoring of the consumption of the individual production segments, preparatory to the planning of the energy efficiency and water measures
- the production cycles have been improved and the analytical instrumentation optimised

- during 2012, Acea Ato 2 and Acea Ato 5 in total carried out energy efficiency measures on networks and plants for more than 4 million kWh, equivalent to more than 1% of the total of their consumption

	<p><b>Waste management</b></p> <p><b>2012-2016</b></p> <ul style="list-style-type: none"> <li>• carry out energy audits in order to identify the most suitable project solutions for reducing energy consumption;</li> <li>• create a new anaerobic treatment line for the organic waste at the Orvieto plant installation; 1MW electricity biogas plant</li> </ul> <p><b>2014</b></p> <ul style="list-style-type: none"> <li>• reduce the production of waste liquids</li> </ul> <p><b>2015</b></p> <ul style="list-style-type: none"> <li>• reduce the quantities of waste transported off site</li> </ul>	<ul style="list-style-type: none"> <li>• certain energy efficiency action was identified, to be implemented at the S Vittore del Lazio plant during 2013</li> <li>• the preliminary activities were carried out for the start of work for creating the new waste treatment line, envisaged for the second half of 2013</li> <li>• a study was launched for the creation of a civil and industrial waste water treatment plant at San Vittore del Lazio and the reuse of the treated water</li> <li>• a project was launched for the creation of a treatment plant for the slag from waste to energy treatment at San Vittore del Lazio, with a significant reduction in the final disposal in external plants</li> </ul>
<p><b>Reduce technical water losses on the distribution networks</b></p>	<p><b>Water</b></p> <p><b>Acea Ato 2</b></p> <p><b>2012-2016</b></p> <ul style="list-style-type: none"> <li>• reduction in 2016 of the "effective losses" of 1% perimeter being the same</li> </ul>	<ul style="list-style-type: none"> <li>• a work group was set up comprising specialised staff with the task of maximising the recovery of the water resource in all the stages of the supply chain</li> </ul>
<p><b>Govern the environmental impacts, favouring the diffusion of certified Management Systems (ISO14001, EMAS and ISO 50001)</b></p>	<p><b>Holding Company (Safety and Protection) and the companies of the 4 business segments (Water, Networks, Energy and Environment)</b></p> <p><b>2012-2016</b></p> <ul style="list-style-type: none"> <li>• Maintain the environmental and energy management systems in existence and extend them to other Group companies as well</li> </ul> <p><b>2013 (Networks)</b> introduce the ISO 50001 certified energy Management System, within Acea Distribuzione</p> <p><b>2012-2016 (Waste management)</b> implement the formalised Environmental/Energy Management Systems (ISO 14001, ISO 50001, EMAS registration)</p>	<ul style="list-style-type: none"> <li>• all the activities envisaged within the framework of the Management Systems existing have been carried out, for maintenance of the Certification already present within Acea SpA and the operating companies of the 4 business segments (Networks, Energy, Water and Environment)</li> <li>• in 2012, the Environmental Management System was introduced and certified in accordance with the ISO 140001 standard in Acea Distribuzione (Networks), in the hydroelectric plants Volta (RM) and Ferraris (RM) (Energy), in Acea Gori Services and Sogea (Water)</li> <li>• furthermore, during the year, the Energy Management System was introduced and certified in accordance with ISO 50001 in Acea Ato 5 (Water) while Acea Distribuzione and Acea Reti e Servizi Energetici (Networks) launched the activities for obtaining the same certification</li> </ul>
<p><b>Modernise the fleet of vehicles so as to reduce the energy consumption and improve activities</b></p>	<p><b>Networks</b></p> <p><b>2013</b></p> <ul style="list-style-type: none"> <li>• Gradual "up-dating" of the company fleet of vehicles used for operations. Replace or in any event dispose of a total of around 660 vehicles, 145 of which by the end of 2013</li> </ul>	<ul style="list-style-type: none"> <li>• 79 vehicles have been removed from service</li> <li>• during the year, 42 electric vehicles were used and the procedure was launched for the purchase of a further 40 electric vehicles;</li> <li>• the procedure was launched for the purchase of 100 conventional vehicles destined to replace the oldest vehicles in use</li> </ul>
<p><b>Adopt new technologies for the reduction of the pollutant emissions typical of the waste to energy process</b></p>	<p><b>Waste management:</b></p> <p><b>2012-2016</b></p> <ul style="list-style-type: none"> <li>• create specific projects care of the various production sites and plants so as to reduce atmospheric emissions</li> <li>• monitor and control CO<sub>2</sub> emissions produced by the waste to energy process</li> </ul>	<ul style="list-style-type: none"> <li>• care of the San Vittore del Lazio waste to energy plant, instrumentation has been installed for the on-going control of micro-pollutants (dioxins and furans); the air quality in the surrounding areas was monitored, using fixed and mobile control units; a double-stage filtration of the powders was set up along with a catalytic reduction system using ammonia solution for NO<sub>x</sub></li> <li>• a monitoring campaign was established at the Terni waste-to-management plant, for the pollutants envisaged by emissions. Within the sphere of the European ETS system (emission trading system) relating to CO<sub>2</sub> emissions, both plants, Terni and San Vittore del Lazio, presented the preliminary documentation by the legal deadlines, inclusive of their CO<sub>2</sub> emission monitoring plans, preparatory for the finalisation of the authorisation applications for new entrant plants relating to the period 2013-2020</li> </ul>

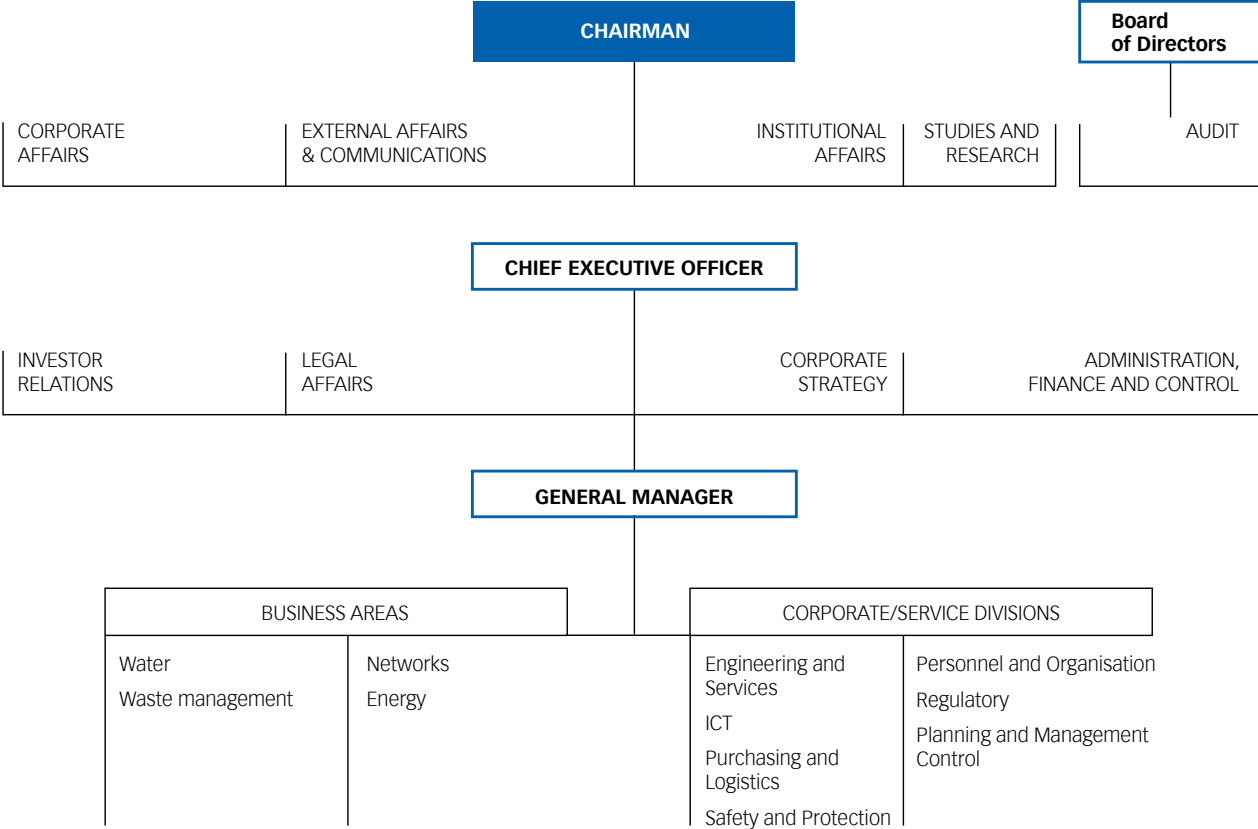
<b>Develop advanced methods for handling the environmental variables and contribute towards cutting down CO<sub>2</sub> emissions into the atmosphere</b>	<b>Energy</b> <b>2012-2016</b> <ul style="list-style-type: none"> <li>further the production of electricity by means of the use of renewable energy and technologies featuring low specific CO<sub>2</sub> emissions</li> </ul>	<ul style="list-style-type: none"> <li>the district heating networks in the areas of Torrino and Mezzocammino has been modernised and extended by around 2,650 m.</li> </ul>
	<b>(2016)</b> <ul style="list-style-type: none"> <li>modernise the Tor di Valle plant with the most efficient technologies</li> <li>complete the district heating network in South Rome</li> </ul> <b>Water</b> <b>Acea Ato 2</b> <b>2012-2016</b> <ul style="list-style-type: none"> <li>increase the efficiency of the vehicles which use petrol or diesel (5% less consumption through 2016)</li> </ul>	<ul style="list-style-type: none"> <li>during the year, Acea Ato 2 launched the process for the renewal of the vehicle fleet, with the purchase of just vehicles which feature efficiency greater than 10% with respect to those currently in use</li> </ul>

## THE COMPANY

<b>Turn the Group companies into cutting-edge enterprises with regard to technological, process and product innovation</b>	<b>Waste management</b> <b>2012-2016</b> <ul style="list-style-type: none"> <li>carry out research and process management and innovative technology experimentation, exploiting best company practices, both national and international</li> </ul>	<ul style="list-style-type: none"> <li>study into new systems for the handling of the landfills with minor quantities of natural resources (clay and natural shale) and recovery of useful volumes to prolong the operating life thereof</li> <li>study of new systems for the composting of organic waste and launch of a pilot project care of the City of Mexico</li> </ul>
	<b>Networks</b> <ul style="list-style-type: none"> <li>implement the Memorandum of Intent signed in 2012 by Acea, Enel and Rome City Council regarding innovative projects and initiatives for electric mobility in the capital and surrounding area</li> </ul> <b>2013</b> <ul style="list-style-type: none"> <li>build a network made up of 200 public recharging stations for electric vehicles (100 stations by Acea and another 100 by Enel)</li> <li>achieve the technological innovation project "Smart-network Management System". (Funds for Technological Innovation, Italian Law No. 46 dated 17 February 1982)</li> </ul> <b>2012-2014</b> <ul style="list-style-type: none"> <li>arrange the definition of new technical standards for secondary sub-stations for the purpose of minimising the electromagnetic field produced in the environment (stations to be installed in urban areas)</li> <li>optimise the LV network with the improvement of the reliability, increase of the transportation capacity and reduction of energy losses</li> </ul>	<ul style="list-style-type: none"> <li>100 recharge stations have been acquired from Enel, subject to definition of the technical features, including the licences for the centralised management of said stations</li> <li>the territorial distribution of the recharging stations has been arranged with Rome City Council and Enel (municipal premises, schools, shopping centres, etc.) and projects have been drawn up for the installation of stations and for connection to the electricity mains</li> <li>the modelling of the secondary sub-station plants has been completed</li> <li>two types of stations have been identified on which magnetic field measurements have been carried out, compared with values calculated via specific models</li> <li>software for the reconstruction and calculation of the LV network has been developed and positively tested</li> </ul>

# Corporate governance and management systems

**CHART NO. 6- ACEA SPA ORGANISATION CHART AS OF 31 DECEMBER 2012**



## Corporate governance within Acea

Acea has adopted a governance model complying with the principles of accountability, balance and separation between the policy, management and control activities, aspiring to the indications contained in the Code of Best Practice for listed companies.

Acea SpA’s Board of Directors has the function of defining the **strategic policies of the Group** and is responsible for governing the operations thereof. Within the parent company, there are also **two Committees established with proposal and advisory functions**, which interact with senior company management. The Board of Auditors carries out supervisory activities.

## THE MAIN STAGES OF THE CORPORATE GOVERNANCE OF THE ACEA GROUP

### 1999

- *Corporate governance* document approved and gradual application of the *Code of Best Practice for listed companies* established
- Establishment and start of operations of the Internal Auditing Committee and the Remuneration Committee
- Establishment of the *Investor Relations* function

### 2000-2002

- Adoption of the *Regulations for General Shareholders' Meetings*
- Adoption of the *Values Charter* (2001) and the *Code of Conduct concerning Internal Dealing* (2002)

### 2003-2005

- Approval of the *Tender Ethic Code* (2003) and the *Code of Ethics* (2004), establishment of the *Ethics Committee*
- The Chairman was entrusted with the *task of auditing and monitoring the social and environmental performances of the Group* (2003) and the setting up of the Risk control Unit and Customer care division (2005)
- Adoption of the first *Organisation, management and control model* in accordance with Italian Legislative Decree No. 231/2001 and establishment of the Supervisory Body starting with the Parent Company (2004) and, consequently, within the main Acea operating companies involved in water, network and energy services.
- Adoption of the Guidelines for the handling of personal details, in accordance with Italian Legislative Decree No. 196/03, protecting privacy (2005)
- Implementation of the "System of Internal Regulations" (group policies, strategic governance processes, procedures for handling shareholdings, operating processes and functioning processes) (2005)

### 2006-2008

- Acknowledgement of the new version of the *Code of Best Practice for Listed Companies* (Borsa Italiana, 2006)
- Adaptation of the Articles of Association to the regulations introduced by Italian Law No. 262/05 (2006)
- *New Regulations for the internal handling and communication outside the company of documents and corporate information* and new provisions concerning Internal Dealing (2006)
- The adoption of a Procedure for the decision-making process of the transactions with related parties (OPC), in observance of the principles of correctness and transparency (2008)

### 2009-2011

- Review of the Internal Audit System (SCI) and its *Guidelines* approved (2010)
- New regulations adopted on the composition and functioning of the Committees (2010)
- A new procedure for transactions with related parties approved and the Committee for Transactions with Related Parties (OPC) set up (2010, effective as from 1 January 2011)
- Articles of Association adapted to the most recent legislative provisions (Italian Law No. 34/08, Italian Legislative Decree No. 27/10) concerning the methods for choosing and electing the corporate bodies and participation in shareholders' meetings (2010)
- The new organisational macro-structure approved (2011)
- Position of General Manager introduced, becoming operative in February 2011
- Winding up of the joint venture between Acea SpA and GdF Suez Energia Italia SpA finalised on 31 March 2011
- Composition of the Ethics Committee completed with the appointment of two external members. The Ethics Committee, in the meeting held on 21 November 2011, approved the *RSI and reporting lines of development*, which were used to formalise the wishes of senior company management to align the publication of the sustainability report with the annual financial statements
- Introduction or adaptation, also in previous years, of the *Organization, management and control models* in accordance with Italian Legislative Decree No. 231/2001, within numerous Acea Group companies, in response to organisational changes and extension of the offences contemplated, introduced by means of Italian Legislative Decree No. 121/11

### 2012

- **New Ethical Code** approved, which integrates in a single document the pre-existing Acea value codes (*Values Charter*, *Ethical Code*, and *Tender Ethics Code*), and the **procedure for the handling of reports** which disciplines the formalities for receiving, administrating and analysing the reports of alleged violations and inobservances of said Code and Acea's corporate governance regulations
- Adaptation of the **Internal Dealing procedure**
- Appointment of the new **Executive Appointed to draw up the Company Accounting Documents**
- Acknowledgement of the new version of the *Code of Best Practice for Listed Companies* (Borsa Italiana, 2006) with consequent: updating of the **Internal Audit and Risk Management System**; renaming and updating of the duties of the Internal Audit Committee with the **Audit and Risks Committee**; supplementing of the duties of the Appointments Committee into the **Appointments and Remuneration Committee**
- Updating of the *Organization, management and control models*, in accordance with Italian Legislative Decree No. 231/2001, of all the Acea SpA subsidiaries with reference to **environmental offences**, also taking steps to plan the activities for the integration of the Models with the alleged offences introduced by the legislator in 2012 relating to: **use of the work services of citizens from countries outside European with irregular stay permits, undue incitement to provide or promise benefits and corruption and bribery between private parties.**
- The **Group executive provisions for antitrust compliance** were approved.
- The **Operating Risk Committee** was set up in the Energy area, so as to oversee and monitor the risks associated with the management of the commodities

The management of the company is the exclusive responsibility of the **Board of Directors** (BoD), made up of between 5 and 9 members according to the matters established by the shareholders' meeting. The members of the BoD can be re-appointed and remain in office for three accounting periods. The method adopted for their election (criteria of ratios on the basis of the votes obtained from the minority lists) is able to ensure the appointment of an appropriate number of **Directors to represent the minority shareholders** (equal to two, three or four depending on whether the Board is made up of five, seven or nine members) and a minimum number of independent Directors as per the law<sup>17</sup>.

**The Board in office is made up of nine members** and was appointed by the shareholders' meeting held on 29 April 2010 (see related box); during the year, the Board of Directors met nine times. The **Chairman** and the **Chief Executive Officer** are **executive**

**Directors** while the other seven directors are not, since they lack management powers.

The **Report on corporate governance and the ownership set-ups**, which can be consulted online on the company website ([www.acea.it](http://www.acea.it)) provides the stakeholders with detailed information on the Acea SpA Directors: résumés, the independence qualifications, the presence during Board Meetings and those of any Committees which they are members of and, in conclusion any appointments covered in other companies. The fee for the Board members is established by the shareholders' meeting while the additional fee for the members of the Committees is established by said Board upon the proposal of the Appointments and Remuneration Committee and having consulted the Board of Statutory Auditors. The emoluments received by the directors are illustrated in a specific table attached to the *2012 Consolidated financial statements*<sup>18</sup>.

#### ACEA SPA'S BOARD OF DIRECTORS (AS OF 31 DECEMBER 2012)

Giancarlo Cremonesi	(Chairman)
Marco Staderini	(Chief Executive Officer)
Paolo Giorgio Bassi	(Chairman of the Control and Risks Committee)
Andrea Peruzi	(Member of the Control and Risks Committee and the Appointments and Remuneration Committee)
Luigi Pelaggi	(Member of the Control and Risks Committee and the Appointments and Remuneration Committee)
Francesco Caltagirone	(Member of the Control and Risks Committee)
Paolo Di Benedetto	(Chairman of the Appointments and Remuneration Committee)
Jean Louis Chaussade	
Giovanni Giani (*)	(Member of the Control and Risks Committee and the Appointments and Remuneration Committee)

(\*) The Director Giovanni Giani was appointed member of the Appointments and Remuneration Committee on 11 May 2012, in replacement of Jean Louis Chaussade.

<sup>17</sup> On the basis of Article 147 ter, section 4 of Italian Legislative Decree No. 58/98, the so-called Finance Consolidation Act (TUF), the minimum number of independent Directors must be 1 in the event of a BoD of up to 7 members, 2 in the case of a BoD with more than 7 members. During 2012, the BoD checked that the Directors comply with the conditions required so as to be qualified as independent: as of 31 December 2012, 5 Directors out of 9 were independent. During the year under review, Acea implemented the stages necessary for acknowledging, within the organisation, the innovations introduced by Italian Law No. 120/11 on so-called gender quotas in the corporate bodies. In light of the above, at the end of January 2013, the BoD approved the Article of Association amendments necessary for applying the afore-mentioned law at the time of the renewal procedures for the next corporate bodies which shall take place in April 2013

<sup>18</sup> Published each year on the company website, Shareholders section.

## THE ROLES AND THE POWERS OF THE BOARD OF DIRECTORS WITHIN ACEA

The powers assigned by law, the Articles of Association and in compliance with the recommendations contained in the *Code of Conduct*, to the Board of Directors include:

- the definition of the strategic and general policy and the formulation of the Company's development lines; the economic-financial co-ordination of the activities of the Group via the approval of the strategic and financial plans, investments and the annual budget;
- the definition of the nature and level of risk compatible with the company's strategic objectives
- the approval and amendment of the internal regulations relating to the general organisational structure of the company;
- the establishment of the Committees envisaged by the *Code of Conduct* and the appointment of their members;
- the adoption of the *Organisation, management and control model* in accordance with Italian Legislative Decree No. 231/01;
- the assessment of the adequacy of Acea's organisational, administrative and accounting set-up and that of the subsidiaries which are strategically important;
- the dialogue with the shareholders and the furthering of initiatives useful for encouraging their participation and the assisted exercise of their rights;
- the establishment of safeguards to protect the processing of personal details or sensitive third-party data, with the annual drafting of a data security planning document (Italian Legislative Decree No. 196/03);
- the adoption of the procedures necessary for protecting the health of workers and the appointment of the parties who will see to safety in the workplace (Italian Legislative Decree No. 81/08).

## ROLES OF THE CHAIRMAN, THE CHIEF EXECUTIVE OFFICER AND THE GENERAL MANAGER

The **Chairman** is the Company's legal representative and is authorised to sign on behalf of the same, and also has the powers to call and chair Board and shareholders' meetings. The duties he is delegated with include: overseeing the Group's activities and checking the implementation of the Board resolutions and the corporate governance regulations; the assessment of the activities and corporate processes with reference to supplied and perceived quality aspects, the environmental impacts and social sustainability (corporate social responsibility); the supervision of the corporate secretariats of the Parent Company and the subsidiaries.

The **Chief Executive Officer** is entrusted with the ordinary business of the Company, the corporate signature, legal and trial representation as well as any other responsibility delegated within the limits of the law and the Articles of Association. He operates on the basis of long-term plans and annual budgets approved by the Board and guarantees and ascertains the observance of the management guidelines, implementing the organisational and procedural changes to the Parent Company's activities, on a consistent basis with the guidelines resolved by the BoD. Furthermore, he chairs the **Management Committee**, an advisory body for the checking of the economic operating situation of the Group and the individual business areas and any deviations with respect to the objectives. In conclusion, he ensures the correct handling of the corporate information.

The **Chairman and the Chief Executive Officer** report at least quarterly to the BoD and the Board of Statutory Auditors on the general trend in operations and the expected outlook for the future.

The Chairman and Chief Executive Officer can jointly adopt, if need be, acts reserved for the BoD with regard to contracts, purchases, participation in tenders, issue of sureties and appointment of members of the Boards of Directors and Boards of Statutory Auditors of the most important subsidiary and investee companies, when the urgency involved does not allow for calling, informing the Board in the first subsequent meeting applicable, which will check the legitimacy of the transactions entered into.

The **General Manager** is entrusted with the operational management of the structures he heads up - in a functional or hierarchical sense - specifically: the 4 business areas - Water, Networks, Waste Management and Energy - the Regulatory Division, the Planning and Management Control Division, the Personnel and Organisation Division, the Safety and Protection Division, the Purchasing and Logistics Division, the ICT Division and the Engineering and Services Division.

## THE OPERATING RISKS COMMITTEE IN THE ENERGY AREA

An adequate risk policy represents an element of sound corporate management, encouraging the adoption of informed decisions by management. Starting off from this observation, in light of the risk profile undertaken by Acea in the energy sector after the winding up of the joint venture with GdF Suez Energia Italia SpA, which led to the Group becoming fully autonomous with regard to electricity and gas generation, trading and sales activities, with the companies Acea Produzione, Acea Energia Holding and Acea Energia, and in consideration of the operating specificities of these companies, in 2012 the **Operating Risks Committee** was set up in the Energy sector. The establishment of the Committee was **functional to ensuring the supervision of the risks which characterise the activities for handling energy commodity contractual negotiation**:

- **market**, linked to the price changes of the commodities and the related volumes, now more than ever;
- **credit**, linked to the observance of the obligations of the counterparts;
- **operative**, referring to possible critical episodes on processes, systems and individuals which take place during the purchase/sale activities;
- **legal**, related to the negotiation and signing of contracts and related support.

Thanks to the activities of the Committee, Acea endows itself with an efficient and dedicated governance structure in a sensitive business area and with specific guidelines for handling the risk, consistent and integrated with the documents on this subject in force within Acea such as the *Ethical Code*, the *Management, Organisational and Control Model* pursuant to Italian Legislative Decree No. 231/2001 and other internal Group regulations.

**The shareholders' meeting**, in ordinary and extraordinary session, **can be called** not only **by the Board of Directors** but also **upon the request of shareholders** who represent, as per current legislation, at least 5% of the share capital; furthermore, in observance of the terms envisaged by legislation, shareholders who represent at least 2.5% of the share capital may request that the business to be dealt with be added to, proposing additional matters. The following are also envisaged by way of example: computerised methods of interaction, such as electronic notification of the representation proxies of the shareholders at the meeting and publication of the notice of calling on the website. In conclusion, before the date of the shareholders' meeting, the shareholders can pose questions on the business on the agenda, sending them in by means of registered letter, or e-mail. There are no shares with a limited right to vote or lacking such as right<sup>19</sup>.

With the exception of the City of Rome shareholder, the Articles of Association envisage a limit to the right to vote on holdings exceeding the extent of 8% of the share capital. There are no shareholders' agreements or special powers of veto or any other aspect influencing the decisions which are the exclusive result of the corporate shareholding held.

Acea SpA's Board of Directors, in December 2012, approved **a new edition of the Guidelines** of the Internal Audit and Risk Management System which acknowledges the principles and criteria of the new edition of the *Code of Conduct*. Already with regard to name, the **Internal Audit and Management Risk System** reflects **a new concept of controls**, which revolve around the concept of **business risk** and in particular the activities for the identification, gauging, management and monitoring of the same, for the purpose of:

- supplying elements of policy so as to **ensure that the Group adopts conduct consistent with the risk profile identified** by the Board of Directors and is able to handle the events which might hinder the achievement of the corporate purposes;
- providing elements of policy for **co-ordination between the divisions involved** in the internal audit and risk management system;
- identifying **the risk governance, management**

**and monitoring principles and responsibilities** associated with the business activities;

- ensuring the observe of the *Code of Conduct* and reference legislation.

The **Internal Audit and Risk Management System (IARM)**, an essential element of the Corporate Governance system, is made up of a series of rules, policies, procedures and organisational structures whose function is to:

- **identify the event which may have a positive (opportunity) or negative (risk) influence on the pursuit of the objectives established by the Board of Directors;**
- encourage the adoption of **informed decisions** and contribute towards the running of the company on a consistent basis with the business objectives;
- contribute towards ensuring the **protection of the company assets, the efficiency and efficacy of the processes, the reliability of the financial information and the observance of the laws, regulations, Articles of Association and internal procedures.**

This system **permeates the entire business structure**, involving the following parties for various purposes:

- **the Board of Directors (BoD)**, which pursues the primary objective of safeguarding the interests of the company and the creation of value for the shareholders over a medium/long-term period, furthering action aimed at implementing the provisions of the law, the Articles of Association, the *Code of Conduct*, as well as the principles contained in the Acea SpA *Ethical Code*. With the support of the Control and Risks Committee, the BoD defines the Guidelines of the IARM so that the main risks pertaining to Acea SpA and its subsidiaries are identified, gauged and handled. The BoD has the power to appoint and remove the members of the Committees and the parties who operate within the system: the Director appointed to oversee the IARM; the individual in charge of the Audit division and the Executive Appointed to draw up the corporate accounting documents;
- **the Control and Risks Committee**, which performs proposal and advisory functions vis-à-vis the Board of Directors with reference to the duties defined by the

<sup>19</sup> With the exception of 416,993 own shares (corresponding to around 0.2% of total shares) for which the voting right is suspended in accordance with Article 2357 ter of the Italian Civil Code. Also see the Report on corporate governance and the ownership set-ups.



Code of Best Practice. **During 2012, the Committee met 5 times**; the body has an annual budget of Euro 25 thousand;

- **the Appointments and Remuneration Committee**, which has proposal and advisory functions vis-à-vis the Board of Directors with regard to the determination of the remuneration of the directors and executives with strategic responsibilities and with regard to the size and composition of said BoD, with particular reference to the professional figures whose presence therein is deemed appropriate. During the year, **the Committee met four times**; the body has an annual budget of Euro 25 thousand;
- **the Board of Statutory Auditors** which exercises the powers and fulfils the duties envisaged by legislation in force, performing the general function of supervision of legislative compliance, the correctness of the administration and the effective implementation of the *Code of Conduct* for listed companies. The shareholders' meeting appointed the Chairman from among the Acting Statutory Auditors appointed by the minority shareholders;
- **the Managing Director**, coinciding with the Director in charge of the IARM, who executes the Policies of the System defined by the BoD and sees to - availing him/herself of the Audit division - the identification of the main business risks, submitting them periodically to the BoD;
- **the Executive appointed to draw up the accounting and corporate documents**, is responsible for establishing and maintaining the Internal Audit System on Financial Disclosure and issuing a specific declaration, together with the Chief Executive Officer;
- **the Supervisory Body (SB)**, which is endowed with full and independent decision-making and control powers with regard to the functioning and efficacy of the Organisation, management and control model pursuant to Italian Legislative Decree No. 231/2001, for the purpose of preventing the risk of offences which involve the Company's administrative liability. The SB of the parent company and those of the subsidiaries carry out monitoring activities on significant transactions at risk as per Italian Legislative Decree No. 231/03, which also contemplate offences in the sphere of the environment, workers' safety and corruption and bribery, by means of systematic

information flows, transmitted by the corporate structures, accompanied by risk indicators. In relation to the activities at risk of offence, the SB draws up an annual plan of checks; furthermore, it may envisaged specific control activities in relation to the periodic or spot information received. The SB has an annual budget of Euro 25 thousand;

- **the Ethics Committee**<sup>20</sup> which is appointed to further awareness of the Ethical Code adopted by the Group, oversee its implementation and define procedures useful for the observance of the principles set forth therein;
- **the Audit Division**, which carries out, in observance of the sector standards, independent checks - on an on-going basis or in relation to specific needs - on the efficacy and suitability of the System, by means of an Audit Plant approved by the BoD. The Unit, which reports to the BoD and does not handle operating activities, is also entrusted with the checks pertaining to the sphere of offences laid down by Italian Legislative Decree No. 231/01. Within the sphere of the checks required by the Supervisory Body, relating to the efficacy of the implementation of the Organisation, management and control model, 3 specific forms of audit activities were carried out during the year which undertook importance for the assessment of the audit system in pursuance of Italian Legislative Decree No. 231/01 in that they are potentially instrumental for committing the crime of **corruption**: management of seconded staff; management of company credit cards; management of entertaining expenses. In conclusion, the head of the Audit Division supports the Appointed Directors with the activities for identifying the main risks within Acea SpA and the subsidiary companies and with the implementation of the Policies of IARM, also by means of a functional linked to the second level control structures;
- **the Risk Control and internal controls unit**, included within the Audit Division, whose tasks include the planning, implementing and handling of the process and instruments for the risk detection and measurement, spreading throughout the Group greater awareness of the factors which may compromise the achievement of the corporate objectives and assisting management in the identification of any corrective action;
- **all the Executives and employees** are responsible, within their own sphere of competence, for the

<sup>20</sup> According to the current regulations, the members of the Ethics Committee are 5, of which two appointed externally. In 2011, two external members were appointed, Mr. Cesare San Mauro (lawyer) and Mr. Andrea Mondello.

measures necessary for ensuring an efficient running of the Internal Audit and Risk Management System.

**The management of the risks is therefore a transversal process**, which envisages widespread responsibilities and involvement of all the corporate levels, so as to assess the exposure and identify the functional responses for avoiding, mitigating, via procedures or management systems - or transferring - for example using insurance coverage - the unacceptable risks.

The **control safeguards** are developed as from the

## Management systems

A complex **system of internal regulations** is implemented within Acea for the control, management and supervision of the business processes. There are **formalised management systems** present care of the Group companies, in accordance with external standards (UNI EN ISO 14001, UNI EN ISO 9001, OHSAS 18001, UNI EN ISO 50001) and over time the **Policies** overseeing **quality** and **safety, protection of the company assets** and **the environment** are adopted and innovated.

The *internal regulations system* (see chart No. 7) oversees the correct functioning of the Group's governance operations, starting off from the definition of general directives up to the expression of specific aspects of business, according to the scheme proposed below:

- **Group management rules**, via which the Parent Company, within the sphere of its management, co-ordination and control function, imparts instructions to all the corporate components;
- **processes**, in turn separated up into governance, functioning and operative processes, according to whether they pertain to strategic or transversal themes or individual businesses;
- **procedures**, which define the methods for implementing the corporate processes.

In order to provide a prompt response to the service

operating activities and are directed at ensuring the correct performance thereof (**first level**). Subsequently, additional action intervenes, aimed at checking that the first level controls are adequate and operative (**second level**), entrusting the performance not only to the heads of the organisational Units in which the risk resides, but also to the corporate structures of the parent company, which report on their activities to the Director in charge of the IARM and to the Audit Division. In conclusion, this Division intervenes with a final control (**third level**) to check the layout and the overall functioning of the system and the monitoring of the necessary improvement plans.

requests, all the components of the system of internal rules **are constantly updated**. In detail, **during 2012** the **Group procedures** which discipline the responsibilities and the applicable formalities in the **handling of accounts receivable** and in the **selection of handling of sponsorships and donations**, were subject to review. Subsequently, the procedures of certain peculiar processes inherent to the company Divisions: Procurement and Logistics, Audit, Human Resources and Organisation, Safety and Protection, were updated. In conclusion, it should be mentioned that during the year, following the redefinition and reorganisation of the Institutional Affairs Division, the Corporate social responsibility and sustainability unit was established, which is assigned the mission of developing and co-ordinating the RSI aspects within the Group.

The management systems provided to oversee the spheres of **Information and Communication Technology** are increasingly important for businesses, for the purpose of ensuring the **protection of the information** and the related IT systems in which the data is stored as well as for the purpose of **developing information systems increasingly more in keeping** with the evolution of the organisational and data management needs (see dedicated box).

### THE STRATEGIC ICT PLAN

The information and communication technology strategies are drawn up on a consistent basis with the Group's business strategies. With a view to this, the **ICT plan** focuses on:

- centralisation of the governance of the information systems
- innovation and re-engineering of the processes
- consolidation and standardisation of the operating practices.

The purpose of the ICT activities is to **create value for the Group** via: initiatives for the simplification and rationalisation of the IT infrastructures and applications which make it possible to reduce the running costs and an improvement in the services level; projects for the creation of evolved services able to optimise the relationship with the customers, innovations of the processes for the purpose of supporting the reduction of the decision-making timescales.

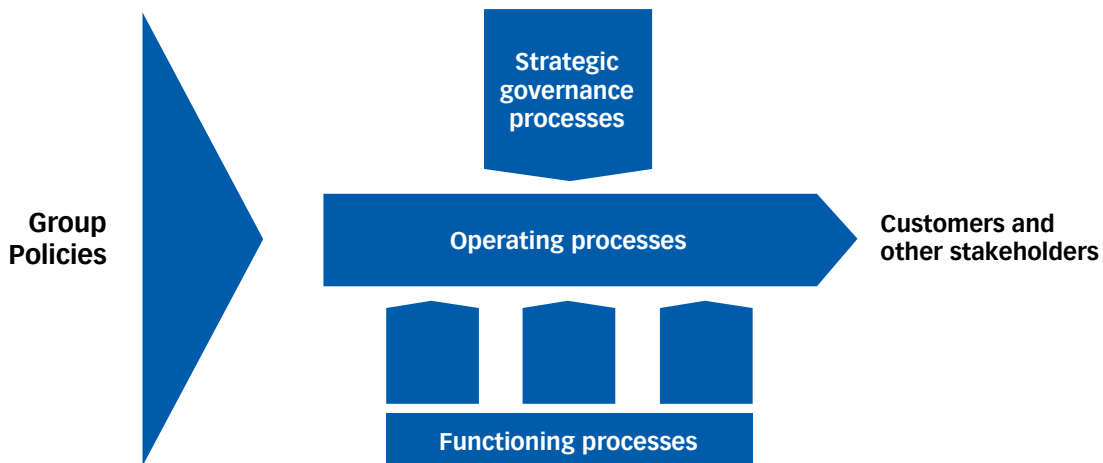
In December 2012, Acea also endowed itself with specific Group management regulations, aimed at disciplining the corporate transactions with the purpose of ensuring complete compliance with the **anti-trust legislation** (see related box).

**THE COMMITMENT TO OBSERVE THE ANTITRUST REGULATIONS**

The action of the Acea Group companies aspires to observance of the **rules of free competition. These principles are applied** both when the companies enter into competition with other **competitors**, in search of spheres of development on markets, and when, in the capacity of customers, they must choose their own **suppliers** of goods and services and, in conclusion, when, in the capacity of operators of services attributable to their core business they deal with the **customers**. Correct and non-discriminatory, non-manipulative or coercive, diligent and accountable conduct, which is shown vis-à-vis the other operators, their suppliers and the public of users and customers, current and potential, generates general efficiency for the economic system and sustainable value for all the stakeholders.

Aware of this and for the purpose of sharing it even further, during 2012 Acea issued **Group management regulations** and a company guide to **anti-trust compliance**. These documents now represent the central axis of the **rules of conduct** for the Group and its collaborators with regard to anti-trust law and consumer protection, and envisaging the implementation of specific internal procedures, aimed at ensuring updating and training on the subject and organising assistance structures for the Group companies and points of supervision for the control of the most sensitive operations.

**CHART NO. 7 – INTERNAL REGULATIONS SYSTEM**



The *Safety and Protection Division* defines, implements and controls the implementation of the Group policies concerning quality, **health and safety in the workplace** and **protection of material and immaterial company assets**. For such purposes, the *Quality System*, *Health and Safety in the workplace* and *Asset Protection Units* are operative within this division (also see the *Human Resources*, *Suppliers and Institutions and the Company* sections). The head of the division, who is also the Management

Representative for quality in Acea, is appointed to **periodically review** and possibly update the **Quality, Environment, Safety and Energy Policy**, signed by the Managing Directors and the Employer, the last time, **in December 2012**, outlining a Group policy aimed at the **integration of the subject matters covered by the management systems** and the inclusion among the same of the aspects of sustainable management of **energy** (for details on the policy, see the related box).

## THE QUALITY, ENVIRONMENT, SAFETY AND ENERGY POLICY, 2012 EDITION

During the year in question, further to lengthy reflection on the impacts, in terms of risks and opportunities, which the quality, safety, environment and energy aspects may have in the management of the companies' operations, the first **Group integrated Policy** was issued. In a values document of fundamental importance, **the principles and purposes** jointly considered are established, as illustrated below, to which the business strategies and objectives must refer:

- **further the culture of quality** at all levels of the structure and pursue the on-going improvement of the quality of the services;
- guarantee the continual commitment to pursue the **improvement of the performances with regard to health and safety of workers** throughout the entire Group;
- guarantee the **continual improvement in the management of the impacts on the natural environment**, based on the prevention and minimisation of the risks;
- **sustainably handle energy necessary** for its purposes, developing the related uses and paying particular attention to the rationalisation of its end uses.

The majority of the Group companies and energy generation installations - thermoelectric, hydroelectric and waste to energy - are equipped with Management Systems certified in accordance with **quality**<sup>21</sup> and **environmental standards**; some installations are also

endowed with **EMAS** Registration and numerous Group companies have **health and safety** in the workplace management systems certified in accordance with the **OHSAS 18001:2007** standard. (see related boxes).

## UNI EN ISO 9001:2008 QUALITY CERTIFICATION OF THE ACEA GROUP COMPANIES AS OF 31 DECEMBER 2012

- **Acea SpA** - for the network and plant planning, construction, maintenance and restructuring activities for the management of the integrated water and public lighting service (functional and artistic)
- **Acea Reti e Servizi Energetici SpA** - for the activities concerning planning and provision of energy services; planning and achievement of energy efficiency measures also by means of the application of renewable sources; planning, construction, maintenance and running of electricity generation plants and installations using renewable sources; production and sale of electricity using renewable sources
- **Acea Distribuzione SpA** - network and plant planning, construction, running, maintenance and restructuring activities for the management under concession of the electricity distribution service for Rome and Formello and the public lighting service for Rome
- **Laboratori SpA** - for the planning, design and works management activities for hydraulic works and hydro-environmental plants
- **Acea Ato 2 SpA** - for the management of the integrated water service, the design, construction and maintenance of aqueduct and sewerage networks and waste water treatment plants in ATO 2 - Central Lazio
- **Acea Ato 5 SpA** - for the management of the integrated water service, the design, construction and maintenance of aqueduct and sewerage networks and waste water treatment plants
- **Acque SpA** - is Best4 certified (quality, environment, safety, social responsibility)
- **Acquedotto del Fiora SpA** - for the management of the integrated water service, the design and construction of aqueduct and sewerage networks, including the water treatment plants, and for the chemical service for analysing the water
- **Publiacqua SpA** - for the planning and management of contracts for the construction of treatment plants and aqueduct and sewerage networks; for the drinking water and waste water treatment service.
- **Publiacqua Ingegneria SpA** - for the planning, works management and test & inspection of the infrastructures for the management of the water resources. Supply of technical services supporting the management of the water resources
- **Umbra Acque SpA** - for the drinking water distribution service and, limited to just some areas, for the sewage and treatment service; for the design, construction and maintenance of aqueduct networks in some municipalities managed.
- **Nuove Acque SpA** - for the management of the integrated water service.
- **Acea Servizi Acqua Srl** - for the running and maintenance of sewage treatment and raising plants
- **SOGEA SpA** - for the running and management of the Valmontone waste water treatment plant
- **Acea Gori Servizi Scarl** - for engineering services in the sectors of the integrated water and energy services; territorial information services; analysis services on drinking and waste water
- **Aguas de San Pedro SA**, (Honduras) - management of the integrated water service in the city of San Pedro de Sula
- **Aguazul Bogotá SA**, (Colombia) - commercial management (billing and customer care) and of the water distribution networks (maintenance, emergency services, loss detection of quality control) in 3/5ths of the municipal areas of Bogotá.

Furthermore, it should be pointed out that **in 2012 Acea SpA**, endowed with autonomous and separate certification for the quality, safety and health in the workplace management systems, **launched the process for the integration of the two systems**, publishing the integrated version of the quality and safety manual.

<sup>21</sup> Possession of certification in accordance with the UNI EN ISO 14001 standard also makes it possible for certain companies to obtain SOA certification of the qualification for the execution of public works for the pertinent types.

## ENVIRONMENT, SAFETY AND ENERGY MANAGEMENT SYSTEM CERTIFICATION OF THE ACEA GROUP COMPANIES AS OF 31 DECEMBER 2012

- **Acea SpA - OHSAS 18001:2007** standard certification of the Health and safety in the workplace management system (Sgsl) for office activities: Management, Co-ordination, Administration, Finance and Control.

### ENERGY

- **Acea Produzione SpA - UNI ISO EN 14001:2004** certification of the Environmental management systems for the centralised offices (Rome) for the district heating planning, construction, test & inspection, running and maintenance activities and for the electricity and heat production activities at the **thermoelectric plants of Tor di Valle and Montemartini (Rome)** and the **hydroelectric plants of Salisano (RI) and Marconi (TR), and as from 2012 at the Volta (RM) and Ferraris (RM)** plants. Acea Produzione also has **OHSAS 18001:2007** standard certification of the Health and safety in the workplace management systems (Sgsl)
- **A.R.I.A. Srl - UNI EN ISO 14001:2004** certification of the Environmental management systems for **the two waste to energy installations using renewable sources** at Terni and San Vittore del Lazio and **EMAS Registration**. At **the San Vittore del Lazio site in 2012**, the Health and safety management system was introduced and certified in accordance with the **OHSAS 18001:2007 standard**
- **SAO Srl**, a company active in the management of environmental services, has an **ES integrated system (Environment and Safety)** with **UNI EN ISO 14001:2004** certification for the Environmental management system and **OHSAS 18001:2007** certification for the Health and safety in the workplace management system. It is also **EMAS registered**
- **Acea Distribuzione SpA - OHSAS 18001:2007** certification of the Health and safety in the workplace management system and **since 2012 UNI EN ISO 14001:2004** certification of the Environmental management system
- **Acea Reti e Servizi Energetici SpA - UNI EN ISO 14001:2004** certification of the Environmental management system for the activities concerning planning and running of: energy services; measures and checks for energy efficiency; planning, construction, maintenance and running of electricity generation plants and installations
- **Acea Energia Holding SpA - OHSAS 18001:2007** certification of the Health and safety in the workplace management system
- **Acea Energia SpA - OHSAS 18001:2007** certification of the Health and safety in the workplace management system

It should be mentioned that, **in 2012 Acea Distribuzione and Acea Reti e Servizi Energetici** launched the activities for obtaining certification of the **energy management system** in accordance with the **ISO 50001:2011 standard**, having in the meantime taken steps to endow themselves with an integrated policy for the quality, environment and energy aspects (the aspect of safety is also contemplated for Acea Distribuzione). Furthermore, the implementation of an integrated environment and safety Management system continued in the companies **Kyklos, Solemme and Aquaser**.

### WATER

- **Acea Ato 5 SpA - ISO 50001:2011** certification of the **Energy management system**
- **Laboratori SpA - ACCREDIA** accredited according to the **UNI CEI EN ISO/IEC 17025:2005** standard for the development of the analytical laboratory trials: the analytical trials which are ACCREDIA accredited, carried out by the laboratory for Group companies, exceed 80%; and **OHSAS 18001:2007** certification of the Health and safety in the workplace system
- **Acea Gori Servizi Scarl - UNI EN ISO 14001:2004** certification of the Environmental management system and **OHSAS 18001:2007** certification of the Health and safety in the workplace management system
- **SOGEA SpA - UNI EN ISO 14001:2004** certification of the Environmental management system and **OHSAS 18001:2007** certification of the Health and safety in the workplace management system
- **Acque SpA** (together with the subsidiary companies Acque Industriali and Acque Servizi and the associated company Ingegnerie Toscane) - **BEST4** integrated certification – inclusive of UNI EN ISO 14001:2004 (environmental system), OHSAS 18001:2007 (safety system), SA 8000:2008 (social responsibility) and UNI EN ISO 9001:2008 (quality system) standard certification – relating to the activities for the management of the integrated water service; design, planning, construction and running of the water and sewage networks; waste water and liquid waste treatment; decontamination of polluted sites
- **Publiacqua SpA - UNI ISO EN 14001:2004** certification of the Environmental management system extended to all the business activities: centralised offices and treatment plants (San Colombano) and drinking water plants (Anconella and Mantignano) serving the Medio Valdarno area
- **Consorcio Agua Azul SA**, (Peru), certification of the integrated **Quality and Environment** management system, in accordance with the UNI EN ISO 14001:2004 and 9001:2008 standards. The **Safety in the workplace management system** was updated in 2012 in accordance with the new local legislation on the subject (Supreme Decree No. 005-2012-TR)
- **Agua de San Pedro SA**, (Honduras) continued the certification process for the laboratory in accordance with the **ISO 17025** standard
- **Aguazul Bogotà SA**, (Colombia) - a **Health and safety in the workplace and environmental protection management system** operates, verified by the Colombian Safety Council and for which the company is enrolled in the Consolidated Register for Contractors (RUC).

Furthermore, **in 2012 Acea Ato 5** launched activities to obtain certification of the work safety management system in accordance with the **OHSAS 18001:2007** standard.

# Stakeholders and sharing added value

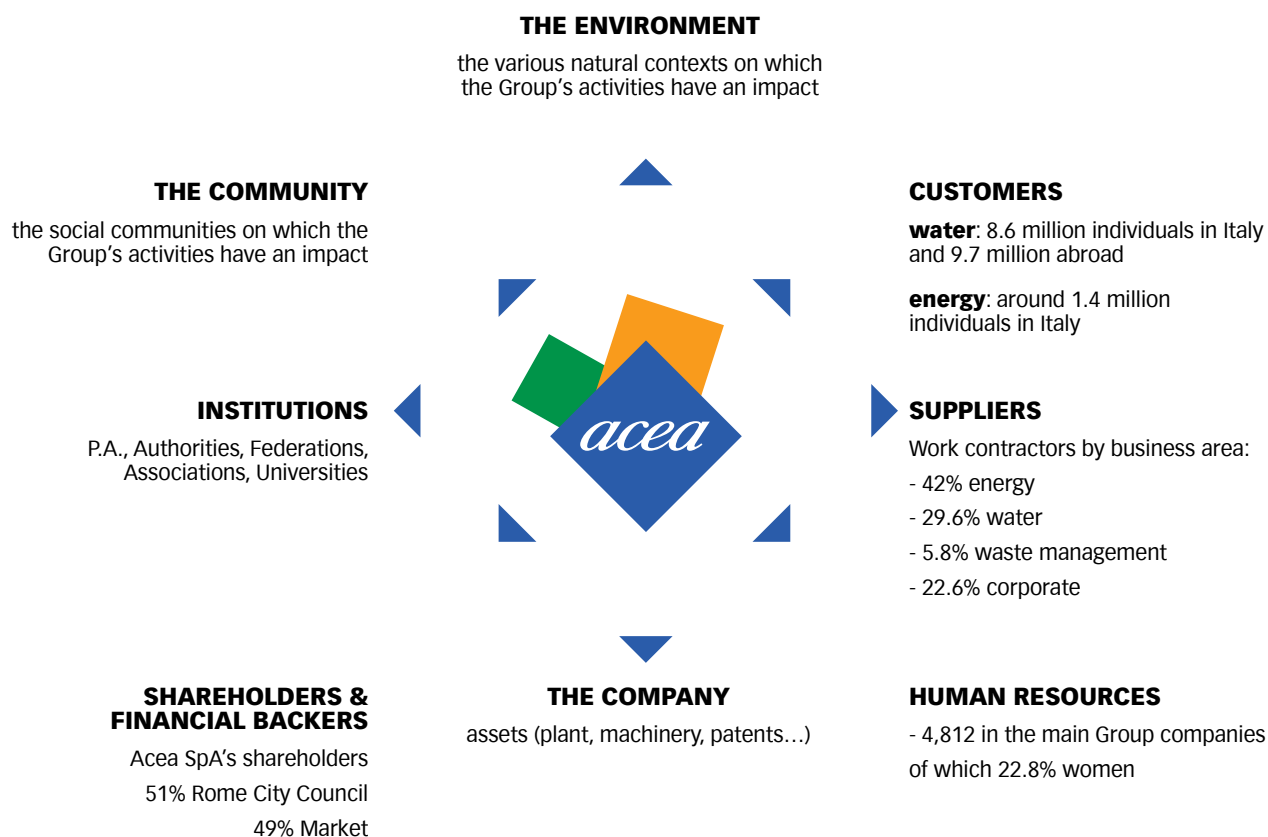
## Stakeholders and their involvement

Acea, inspired by the principles and rules of conduct of the *Group Ethical Code* (2012 edition), encourages dialogue and discussion with its stakeholders<sup>22</sup>. An initial mapping, aimed at identifying the macro-categories of the parties concerned, was carried out, systematically, at the time of stock market listing; subsequently, these categories were further enhanced and diversified on a parallel with the development of the Group's business sectors.

Opening up to the stakeholders, calling them not only to express themselves and manifest their requests but also to gain awareness of their role and their duties

in dealings with the company, means boosting their participation in a policy-related scenario shared with Acea. This took place, during the day-to-day operations of the company, with the individual stakeholder segments affected by the various projects continued by the Group companies in different reference spheres. In fact, even if the macro-categories indicated in chart No. 8, also reflected in the value code, classify the main Group stakeholders, each one of them is in reality composite and diversified and likewise so are the methods for interacting and involvement.

**CHART NO. 8 – ACEA AND ITS STAKEHOLDERS**



**NB: The type, the characteristics of the stakeholders and their relationships with the Company are illustrated, quantified and analyzed in the sections of the Sustainability Report.**

<sup>22</sup> Stakeholders are those parties (understood in the sense of individuals, groups, organisations) which have significant dealings with the company and in whose interests they are for various purposes involved in the activities of the company due to the exchanges they have with the same or because they are significantly influenced by the same.

**CHART NO. 9 - THE ACEA VALUES SYSTEM VIS-À-VIS THE STAKEHOLDERS**



**The activities for the involvement of the stakeholders** carried out by the corporate bodies and by the Group companies produce **information** which is used both to benefit the company and in the processing of the feedback, often operational, to the requests noted.

In the sections dedicated to illustrating relations between the company and the stakeholders, the numerous and various feedback or involvement initiatives are described.

In relation to the **Community**, Acea supports and takes part in numerous cultural, environmental, sporting and social initiatives also furthered by ONLUS (Non-profit making community work organisations) and organisations involved in the social sphere, thereby manifesting its sense of responsibility to the requests of the areas in which it is based, with a view to business citizenship. The **customers** are consulted in a structured manner via customer satisfaction surveys, carried out each year and aimed at revealing elements of satisfaction or criticalities with respect to the services provided, and via round tables consulting with the **consumer protection associations** and with the **associations representing economic operators** on aspects of shared interest. The outcomes of the customer satisfaction surveys and the encounters with the associations generate specific initiatives for the improvement of the services and the quality of the relationships with the company. Accordingly, for example, the joint settlement regulations and protocols were defined during the year, adopted by Acea Distribuzione and the commercial agreement between Acea Energia and the associates of Confcommercio Roma was renewed.

The relationship with the **shareholders** is constantly overseen by the appointed company Division and with respect to the **financial community** and the **ethical analysts** the company sees to the contacts with the sector operators and monitors studies, publications and ratings on the Acea stock taking active part in the external appraisal processes. The interaction with the **national and local institutions** and with the **competent authorities** takes on the form of encounters, hearings and exchanges of information which lead to the development of collaboration regarding development and security of the area and handling of emergencies, such as that existing with the National Security Monitoring Centre (OSN) or with the Interministerial Technical Commissions for Civil Defence (CITDC - Home Office). With reference to the **Human Resources**, Acea implements integrated management systems, planning the consequent growth plans, the handling of the talent and the training courses in line with organisation needs; it periodically consults the workers' representatives and defines trade union agreements on an on-going basis for the disciplining of the organisation of the professional life of its resources. Dealings with the **suppliers** are overseen systematically also by means of the exchange of views with territorial employers' associations, which give rise to not only recurrent processings and adaptations of the Qualification Systems active within the Group, but also innovative sector protocols, such as that concerning water works tender contracts entered into during the year by Acea SpA, Acea Ato 2, the Trade Union Organisations and the Category Federations concerned.



## Distribution of Acea's added value

The economic value generated by the Acea Group in 2012, including the revenues generated by core business activities and those produced by financial activities, amounted to **Euro 3,647.6 million** (Euro 3,623.7 million in 2011).

The distribution of this value to the stakeholders is broken down as follows: **72.1%** to the **suppliers** under the form of operating costs; **11.4%** to the company as

resources reinvested; **7.7%** in terms of remuneration for **human resources**; **6.2%** to the **shareholders and financial backers** under the form of dividends and interest on capital provided; **2.5%** to **public administration authorities**<sup>23</sup> as taxes paid and **0.1%** to the **community**, under the form of donations and sponsorships for events and manifestations.

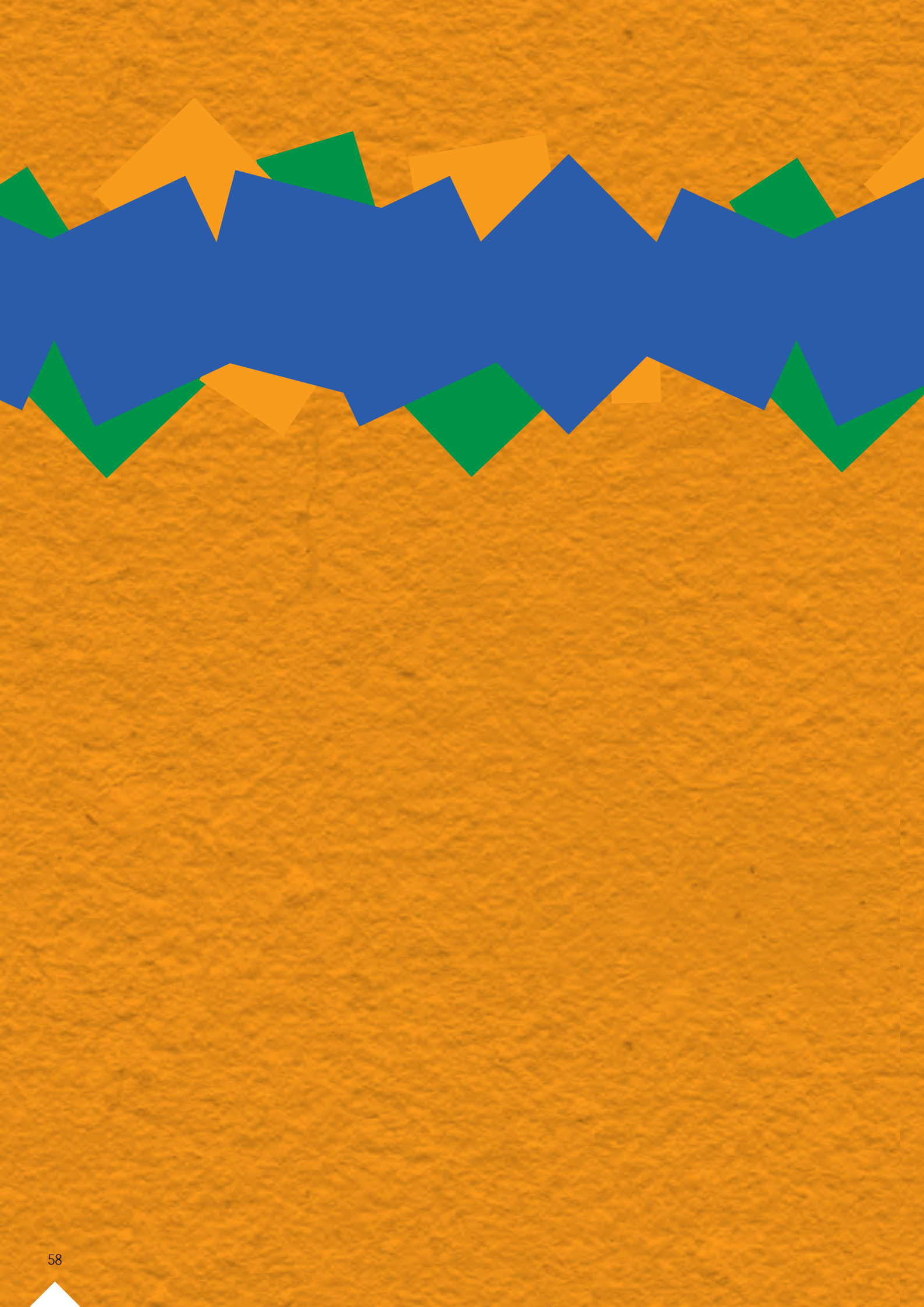
**TABLE NO. 11 – ECONOMIC VALUE DIRECTLY GENERATED AND DISTRIBUTED (2011-2012)**

<b>(in millions of Euro)</b>	<b>2011</b>	<b>2012</b>
<b>Total economic value directly generated</b>	<b>3,623.7</b>	<b>3,647.6</b>
<b>Distribution to the stakeholders</b>		
operating costs (suppliers)	2,594.4	2,630.6
human resources	280.6	282.0
shareholders and financial backers	217.9	226.6
public administration authorities	65.6	88.8
the community	5.6	4.7
the company	459.6	414.9

**TABLE NO. 12 - BREAKDOWN OF THE VALUE GENERATED BY STAKEHOLDER (2011-2012)**

	<b>2011</b>	<b>2012</b>
suppliers	71.6%	72.1
human resources	7.8%	7.7
shareholders and financial backers	6%	6.2
public administration authorities	1.8%	2.5
the community	0.1%	0.1
the company	12.7%	11.4

<sup>23</sup> The amount paid over to the public administration authorities net of the state and regional public grants which Acea receives from said stakeholder, comes to Euro 80.4 million.





Socio-economic relationships  
with the stakeholders

## GRI economic and social performance indicators

The indicators relating to the **economic and social performances** (core and additional) envisaged by the **GRI-G3.1 Guidelines, edition 2011**, together the indicators introduced by the **Electric Utility Sector Supplement**<sup>24</sup> are shown below, with indication of the

sections and pages of the report where it is possible to find them.

The meaning of each performance indicator is illustrated in the *Guidelines and Sector Supplement*, available on the website [www.globalreporting.org](http://www.globalreporting.org).

**TABLE NO. 13 –GRI-G3.1 ECONOMIC AND SOCIAL INDICATORS**

### ECONOMIC PERFORMANCE

<b>EC1 (Core)</b>	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments. <i>Corporate identity</i> pages 26-30, 57; <i>Socio-economic relationships with the stakeholders</i> pages 157, 169, 173 et seq.
<b>EC2 (Core)</b>	Financial implications and other risks and opportunities for the organization's activities due to climate change. <i>Corporate identity</i> pages 26 et seq.; <i>Environmental issues</i> page 206
<b>EC3 (Core)</b>	Coverage of the organization's defined benefit plan obligations. <i>Socio-economic relationships with the stakeholders</i> pages 158 et seq.
<b>EC4 (Core)</b>	Significant financial assistance received from government. <i>Corporate identity</i> page 57 note 23

### PRESENCE ON THE MARKET

<b>EC5 (Additional)</b>	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation. Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation. The salaries of new recruits are disciplined by the Collective National Labour Agreements for the sector (electricity, gas and water). <i>Socio-economic relationships with the stakeholders</i> page 157
<b>EC6 (Core)</b>	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation. <i>Socio-economic relationships with the stakeholders</i> pages 131 et seq., 134
<b>EC7 (Core)</b>	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation. The procedures for employing individuals in Acea do not envisage the requirement of geographic residence as an element of pre-emption, in that it is potentially discriminatory and non-functional with regard to Group logics.

### INDIRECT ECONOMIC IMPACTS

<b>EC8 (Core)</b>	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement. <i>Socio-economic relationships with the stakeholders</i> pages 121, 122, 123 et seq.
<b>EC9 (Additional)</b>	Understanding and describing significant indirect economic impacts, including the extent of impacts. <i>Socio-economic relationships with the stakeholders</i> pages 121, 123 et seq.

### AVAILABILITY AND RELIABILITY

<b>EU6 (Core)</b>	Management approach to ensure short and long-term electricity availability and reliability. <i>Corporate identity</i> page 47; <i>Socio-economic relationships with the stakeholders</i> pages 81, 83, 106, 127, 129, note 72, 174, 178; <i>Environmental issues</i> page 204
-------------------	--

<sup>24</sup> The indicators of the *Electric Utility Sector Supplement (EU)* are supplemented in the table; the text disciplines distinct matters for energy companies, introduces new indicators (EU) and a number of in-depth notes (commentary) relating to indicators already envisaged by the 2006 version of the *GRI Guidelines*.

**EU10 (Core)** Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime.  
*Environmental issues* page 201

### DEMAND-SIDE MANAGEMENT

---

**EU7 (Core)** Demand-side management programs including residential, commercial, institutional and industrial programs.  
*Socio-economic relationships with the stakeholders* pages 81, 106; *Environmental issues* page 204

### RESEARCH AND DEVELOPMENT

---

**EU8 (Core)** Research and development activity and expenditure aimed at providing reliable electricity and promoting sustainable development.  
*Socio-economic relationships with the stakeholders* pages 81, 178; *Environmental issues* pages 223 et seq.

### PLANT DECOMMISSIONING

---

**EU9 (Core)** Provisions for decommissioning of nuclear power sites.  
There are no nuclear installations in the Acea power plant base.

### SYSTEM EFFICIENCY

---

**EU11 (Core)** Average generation efficiency of thermal plants by energy source and by regulatory regime.  
*Environmental issues* page 202

**EU12 (Core)** Transmission and distribution losses as a percentage of total energy.  
*Environmental issues* page 204

### LABOR PRACTICES & DECENT WORK

---

#### Employment

---

**LA1 (Core)** Total workforce by employment type, employment contract, and region, broken down by gender.  
*Socio-economic relationships with the stakeholders* pages 140-143, 146-148

**LA2 (Core)** Total number and rate of new employee hires and employee turnover by age group, gender, and region.  
*Socio-economic relationships with the stakeholders* pages 140, 143, 144

**LA3 (Additional)** Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major significant locations of operation.  
*Socio-economic relationships with the stakeholders* page 158

- LA15 (Core)** Return to work and retention rates after parental leave, by gender.  
Acea operates in observance of the Consolidation Act regarding the protection and support of maternity and paternity (Italian Legislative Decree No 151/2001 and subsequent amendments and additions), which disciplines leave, sick leave, time off and economic support for male and female workers associated with the maternity and paternity of natural, adopted or fostered children.  
The legislation prohibits any discrimination for reasons associated with gender, with particular regard to any less favourable treatment in relation to pregnancy, maternity or paternity; it establishes obligatory maternity leave for a period inclusive of between two months prior and three months after the birth and guarantees the maintenance of the employment position during this period, imposing the prohibition of dismissal; it also establishes the re-employment of the resource with the duties performed before the period of leave or equivalent duties, envisaging sanctions for employers who violate this legislation. Therefore, 100% of the employees who avail of this type of leave keep their jobs and return to work.
- EU14 (Core)** Programs and processes to ensure the availability of a skilled workforce.  
*Socio-economic relationships with the stakeholders* page 81
- EU15 (Core)** Percentage of employees eligible to retire in the next 5 and 10 years broken down by job category and by region.  
With reference to the Group companies active in the electricity sector (Acea Distribuzione, Acea Reti e Servizi Energetici, Acea Energia and Acea Produzione, mainly located in Lazio) employees eligible for retirement **in the next 5 years** equate to 2.2% of the total workforce of the companies included within the scope of the reporting in the section Composition and turnover, broken down into: 0% of executives, 0% of middle management, 1.9% of white-collar workers and 0.4% of blue-collar workers; 13.7% of the workforce is by contrast eligible for retirement **in the next 10 years**, broken down into: 0.2% of executives, 0% of middle management, 10.4% of white-collar workers and 3.1% of blue-collar workers.
- EU17 (Core)** Days worked by contractor and subcontractor employees involved in construction, operation & maintenance activities.  
The works management of the operating companies active in the energy sector monitors the working days of the contractor and subcontractor companies, by means of the workers attendance sheets, but not all have a computerised programme for handling the presences. At present, it is possible to indicate just the figure relating to Acea Produzione which, in 2012, with a workforce of 79 resources for a total of around 144,000 men days, resorted to 15,280 men days worked by staff of the contracting firms for the achievement of the electrical work.

### Labor/ Management Relations

- LA4 (Core)** Percentage of employees covered by collective bargaining agreements.  
100% of Group employees are covered by collective bargaining agreements. With reference to the supply chain, the percentage of the human resources employed by contracting firms covered by the national collective labour agreement is not available, however all the companies which are entrusted services and work under contract are obliged to comply with the Group Ethical Code (2012 edition), in which explicit reference is made to the promotion and protection of the freedom of association of workers, also by means of the establishment of industrial relations safeguards (Article 15.4).  
*Socio-economic relationships with the stakeholders* page 146 et seq.
- LA5 (Core)** Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.  
*Socio-economic relationships with the stakeholders* pages 146-148

### Occupational Health and Safety

- LA6 (Additional)** Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.  
In Acea, the matters established by Italian Legislative Decree No. 81/2008 regarding health and safety in the workplace are observed.  
*Socio-economic relationships with the stakeholders* pages 136, 153 et seq.
- LA7 (Core)** Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities by region and by gender.  
*Socio-economic relationships with the stakeholders* pages 153, 154

- LA8 (Core)** Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.  
*Socio-economic relationships with the stakeholders* page 155
- LA9 (Additional)** Health and safety topics covered in formal agreements with trade unions.  
During 2012, Acea SpA, Acea Ato 2 and the main Trade Union organisations with the respective sector representatives signed the Protocol for water tender contracts aimed at contrasting irregular work and contractual breaches and increasing security at worksites.  
*Socio-economic relationships with the stakeholders* pages 153 et seq.
- EU16 (Core)** Policies and requirements regarding health and safety of employees and employees of contractors and subcontractors.  
In December 2012, Acea adopted the Quality, Environment, Safety and Energy Policy. Numerous Group companies also have a Sgsl (work safety management system) compliant with the OHSAS 18001 standard. Company policies regarding procurement establish the obligation for the contracting companies to comply with the Group Ethical Code (2012 edition), which also acknowledged and incorporated the principles of the pre-existing Tender Ethics Code, and envisages the observance of the health and safety of the workers (Article 16.2). With regard to the energy area, the suppliers also comply with the Health and Safety in the workplace Policy in force within Acea Distribuzione so as to be admitted to the procedures for the entrusting of work, goods and services and since 2008 a Vendor Rating system has been active centred on quality and safety parameters.  
*Corporate identity* pages 52, 53; *Socio-economic relationships with the stakeholders* pages 128, 135, 136, 138, 139, 153
- EU18 (Core)** Percentage of contractor and subcontractor employees that have undergone relevant health and safety training. The figure relating to the percentage of contractor and subcontractor employees trained with regard to safety is not available since it is not currently monitored. However, the vendor rating system is operative within Acea for work in the energy area (Acea Distribuzione), focused on quality and safety parameters, and, in 2012, a Protocol was signed between Acea SpA, Acea Ato 2 and the Trade Union Organisations on water tenders so as to make the most of the quality of the work and safety at worksites by means of initiatives and monitoring and control action.

### Training and Education

---

- LA10 (Core)** Average hours of training per year per employee by gender, and by employee category.  
*Socio-economic relationships with the stakeholders* pages 163, 164
- LA11 (Additional)** Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.  
*Socio-economic relationships with the stakeholders* pages 160-164
- LA12 (Additional)** Percentage of employees receiving regular performance and career development reviews, by gender.  
During 2012, further to the introduction of the new Human Resources Management System, Group executives and middle managers were appraised, equal to 10% of the entire workforce; furthermore, Acea Distribuzione assessed its executives and middle managers, representing 5.3% of the company's workforce, within the sphere of the HRO project on organisational reliability. Reference should be made to the section *Human Resources, Human Resource appraisal systems* and *The training and development of the Human Resources*.  
*Socio-economic relationships with the stakeholders* page 160

### Diversity and Equal Opportunity

---

- LA13 (Core)** Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.  
*Socio-economic relationships with the stakeholders* pages 144, 145, 149-151, 168

### Equal remuneration for women and men

---

- LA14 (Core)** Ratio of basic salary and remuneration women to men by employee category, by significant locations of operation. On the basis of the current national collective labour agreement (CCNL), the basic salary of men is equal to that of women, for each category. However, it is the variable part of the salary which determines certain differences.  
*Socio-economic relationships with the stakeholders* page 157

## HUMAN RIGHTS

---

### Investment and Procurement Practices

---

- HR1 (Core)** Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.  
All the parties who operate on behalf of Acea in the management of the corporate activities are obliged to observe the Group's Ethical Code (2012 version), which, even in the Introduction, makes explicit reference to observance of the Universal Declaration of Human Rights, the ILO Conventions and the 10 principles of the Global Compact. This guarantees an adequate protection of the human rights also in the event of entering into investment and/or supply agreements.  
*Socio-economic relationships with the stakeholders* pages 134 et seq.
- HR2 (Core)** Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.  
The percentage figure is not available but Acea applies supplier Qualification Systems which refer the possession of specific requisites including the requirement of technical, environmental and safety reliability as well as the obligation, in order to access the tender, to accept and observe the Group's Ethical Code (2012 version), observance of the national norms concerning health, safety and hygiene in the workplace, remunerative, contribution and insurance-related fulfilments. The Qualification systems are up-dated each year, with a new audit of the possession of the requisites required. In the event of violation of the principles contained in the *Code of Ethics* – which can be reported to the Acea SpA Ethics Committee – further to appropriate assessments, exclusion from the tender or suspension from being awarded tenders is envisaged.  
*Socio-economic relationships with the stakeholders* pages 127 et seq., 134 et seq.
- HR3 (Core)** Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.  
In 2012, training hours provided to employees which also concerned such topics amounted to around 2,107, with a percentage of workers trained equal to around 50%.  
*Socio-economic relationships with the stakeholders* page 162

### Non-discrimination

---

- HR4 (Core)** Total number of incidents of discrimination and corrective actions taken.  
No episodes of discrimination were reported.  
With regard to the prevention policies, in other words the new Group Ethical Code (2012 version) and the protection of diversity and equal opportunities, please refer to *Corporate identity* page 32;  
*Socio-economic relationships with the stakeholders* pages 149, 168

### Freedom of Association and Collective Bargaining

---

- HR5 (Core)** Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.  
There are no activities where the freedom of association and collective bargaining is exposed to risks. Please refer to the section Human Resources, in particular Industrial relations and Social activities (where reference is also made to other associative forms present in-house: CRA, ANMIC, The Gold Medal Association).  
During 2012, Acea took part in the Sustainable Supply Chain Work Group within the sphere of the Global Compact Network Italia, involved in defining mechanisms to support the sustainability performances of the companies and encourage suppliers to adopt the best practices, in terms of respect for human rights, labour rights, environmental responsibility and ethics in business affairs (see *Corporate identity*, section *Sharing of the corporate social responsibility* themes).  
*Socio-economic relationships with the stakeholders* pages 146 et seq., 167 et seq.



## Child Labor

---

**HR6 (Core)** Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.

In its dealings with its employees and collaborators, Acea applies the National Collective Labour Agreements and other contractual forms envisaged by current legislation. With regard to the absence of child labour in the supply chain, Acea binds any potential supplier to observe the Group's Ethical Code (2012 version) which guarantees workers from any form of abuse (see sections *Human Resources and Suppliers* in *The socio-economic relationships with the stakeholders*).

During 2012, Acea took part in the Sustainable Supply Chain Work Group within the sphere of the Global Compact Network Italia, involved in defining mechanisms to support the sustainability performances of the companies and encourage suppliers to adopt the best practices, in terms of respect for human rights, labour rights, environmental responsibility and ethics in business affairs (see *Corporate identity*, section *Sharing of the corporate social responsibility* themes).

## Forced and Compulsory Labor

---

**HR7 (Core)** Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures taken to contribute to the elimination of all forms of forced or compulsory labor.

In its dealings with its employees and collaborators, Acea applies the National Collective Labour Agreements and other contractual forms envisaged by current legislation. With regard to the absence of forced or compulsory labour in the supply chain, Acea binds any potential supplier to observe the Group's Ethical Code (2012 version) which guarantees workers from any form of abuse (see sections *Human Resources and Suppliers* in *The socio-economic relationships with the stakeholders*).

During 2012, Acea took part in the Sustainable Supply Chain Work Group within the sphere of the Global Compact Network Italia, involved in defining mechanisms to support the sustainability performances of the companies and encourage suppliers to adopt the best practices, in terms of respect for human rights, labour rights, environmental responsibility and ethics in business affairs (see *Corporate identity*, section *Sharing of the corporate social responsibility* themes).

## Security Practices

---

**HR8 (Additional)** Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.

The security activities are entrusted to an external security company. The rules of conduct for security staff comply with those in force in the security corps of the Italian state.

## Indigenous Rights

---

**HR9 (Additional)** Total number of incidents of violations involving rights of indigenous people and actions taken.

No violations to the detriment of local communities were reported. For the action undertaken by Acea benefiting local communities, please refer to the initiatives supporting the most deprived categories of the population, described in *The socio-economic relationships with the stakeholders*, *Customers and the Community* and in the section *Activities abroad*.

## Assessment

---

**HR10 (Core)** Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.

The Group Ethical Code (2012 edition), which guides all the Group activities, explicitly lays down the observance of human rights. Therefore, specific activities have not been subject to review.

## Remediation

---

**HR11 (Core)** Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms.

No protests have been presented related to human rights. The adoption of the Group Ethical Code (2012 version) guarantees adequate supervision of the protection of the human rights and also the company's commercial partners must observe the same or be excluded from the tender.

## SOCIETY

### Local Communities

---

- SO1 (Core)** Percentage of operations with implemented local community engagement, impact assessments, and development programs.  
*Corporate identity* pages 50, 52 et seq.; *Socio-economic relationships with the stakeholders* pages 70 et seq., 78, 104, 117 et seq., 127 et seq., 136, 178
- SO9 (Core)** Operations with significant potential or actual negative impacts on local communities.  
*Socio-economic relationships with the stakeholders* page 91, 96, 102, 123 et seq., 124
- SO10 (Core)** Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.  
With reference to the projects regarding which a considerable environmental impact is envisaged, in particular due to their nature, their size of location, before issuing authorisation, the competent authorities carry out an appraisal of their environmental impact (VIA). The appraisal involves the prior estimation of the significant direct and indirect effects, short and long-term, which the possible performance of an activity may have on the ecosystem (man, fauna and flora, the ground, the water and the air, the interaction between the afore-mentioned elements, material assets and cultural assets). Furthermore, with regard to the creation of electricity distribution networks and public lighting systems Acea operates in compliance with current provisions in this connection and the regulations which contain provisions for energy saving and for the reduction of the dispersed lighting flux.  
*Socio-economic relationships with the stakeholders* page 176
- EU19 (Core)** Stakeholder participation in the decision making process related to energy planning and infrastructure development.  
*Socio-economic relationships with the stakeholders* page 176
- EU20 (Core)** Approach to managing the impacts of displacement.  
*Socio-economic relationships with the stakeholders* page 176
- EU21 (Core)** Contingency planning measures, disaster/emergency management plan and training programs and recovery/restoration plans.  
*Socio-economic relationships with the stakeholders* page 174
- EU22 (Core)** Number of people physically or economically displaced and compensation, broken down by type of project.  
No episodes of this type took place.

### Corruption

---

- SO2 (Core)** Percentage and total number of business units analyzed for risks related to corruption.  
With regard to the risk of corruption, the Supervisory Bodies of Acea SpA and its subsidiaries carry out on-going and complete monitoring activities internally on the related offences contemplated in accordance with Italian Legislative Decree No. 231/01.  
*Corporate identity* pages 45, 48 et seq.
- SO3 (Core)** Percentage of employees trained in organization's anti-corruption policies and procedures.  
*Socio-economic relationships with the stakeholders* page 162
- SO4 (Core)** Actions taken in response to incidents of corruption.  
There have been no episodes of corruption.

### Public Policy

---

- SO5 (Core)** Public policy positions and participation in public policy development and lobbying.  
*Socio-economic relationships with the stakeholders* page 173 et seq.
- SO6 (Additional)** Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.  
*Socio-economic relationships with the stakeholders* page 173

## Anti-Competitive Behavior

---

- SO7 (Additional)** Total number of legal actions for anticompetitive behavior, anti-trust, and monopoly practices and their outcomes.  
*Socio-economic relationships with the stakeholders* page 180

## Compliance

---

- SO8 (Core)** Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations.  
*Socio-economic relationships with the stakeholders* page 180

## PRODUCT RESPONSIBILITY

---

### Customer Health and Safety

---

- PR1 (Core)** Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.  
*Corporate identity* page 50, 52 et seq.; *Socio-economic relationships with the stakeholders* page 102
- EU25 (Core)** Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases.  
There were no episodes in this connection during 2012. The appeals presented by the company for the two fatal accidents in the last few years, relating to episodes associated with public lighting are currently pending; precise information will be provided in connection with the same when a final and definite settlement has been reached.
- PR2 (Additional)** Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services, by type of outcomes.  
No cases of non-compliance have been reported.

### Product and Service Labeling

---

- PR3 (Core)** Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.  
*Socio-economic relationships with the stakeholders* pages 84-90
- PR4 (Additional)** Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.  
*Socio-economic relationships with the stakeholders* pages 84-90
- PR5 (Additional)** Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.  
*Corporate identity* page 54; *Socio-economic relationships with the stakeholders* pages 70-76

### Marketing communication

---

- PR6 (Core)** Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.  
The Group Ethical Code (2012), which is subject to review each time it is deemed necessary, establishes the observance of the principles of equality, impartiality and accountability in interaction with customers, in particular when this translates into advertising and commercial disclosure, and in contractual formulations (Articles 8, 14 EC). The handling of sponsorships is disciplined by specific Group regulations, reviewed in 2012. Criteria and responsibilities are established in the same for the selection and handling of the initiatives to sponsor, for the purpose of ensuring observance of the principles set forth in the Ethical Code and preventing the commission of offences as per Italian Legislative Decree 231/11.  
*Socio-economic relationships with the stakeholders* page 110
- PR7 (Additional)** Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes.  
*Socio-economic relationships with the stakeholders* page 180

## Customer Privacy

---

- PR8 (Additional)** Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.  
During the year, there was only one request for information from the Italian Data Protection Authority on the processing of personal data carried out by Acea Ato 2. The episode in question concerned the display by the company - for the purpose of raising the awareness of customers with regard to payment of debts for water supplies - of notices in a number of entrance halls of apartment blocks. Acea Ato 2 provided the Authority with the information requested and accepted the recommendations made by the Authority for ensuring full compliance with privacy legislation.  
*Corporate identity* page 45; *Socio-economic relationships with the stakeholders* page 111

## Compliance

---

- PR9 (Core)** Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.  
*Socio-economic relationships with the stakeholders* page 180

## Access

---

- EU23 (Core)** Programs, including those in partnership with government, to improve or maintain access to electricity and customer support services.  
*Socio-economic relationships with the stakeholders* page 106
- EU26 (Core)** Percentage of population unserved in licensed distribution or service areas.  
The distribution grid covers the whole country.
- EU27 (Core)** Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime.  
Only figures relating to re-connection after disconnection due to arrears are available, as established by the Gas and Electricity Authority.  
*Socio-economic relationships with the stakeholders* page 85
- EU28 (Core)** Power outage frequency.  
*Socio-economic relationships with the stakeholders* page 90
- EU29 (Core)** Average power outage duration.  
*Socio-economic relationships with the stakeholders* pages 90, 95
- EU30 (Core)** Average plant availability factor by energy source and by regulatory regime.  
*Environmental issues* page 202

## Provision of Information

---

- EU24 (Core)** Practices to address language, cultural, low literacy and disability related barriers to accessing and safely using electricity and customer support services.  
No specific programmes are present in-house.

# Customers and the Community

## THE BOUNDARIES

The figures relating to the volume of customers refer to the Group; the figures relating to perceived quality, quality effectively supplied, customer care, tariffs and communications activities refer to a more limited sphere and to the operating companies referred to from time to time in the text.

The interaction between Acea, **customers and the community** is presented in the section jointly since the data and information concerning services provided (quality perceived, quality disbursed, customer care)

refers mainly to Rome and province, where the two stakeholders almost coincide<sup>25</sup>; the volumes of the electricity and water service customers by contrast refer to all the areas served.

## Acea Group customers

### Electricity and gas service customers

According to the most recent data<sup>26</sup>, Acea Energia is the **third leading operator in Italy** in terms of volumes sold on the **end sales market for energy**, with a **market share of between 4% and 5%**.

The changes in the energy market segments managed by Acea, considering the mass market segment (residential

customers and VAT holders), confirmed in 2012 the trend seen in the previous two years, with a **drop of around 5% in "protected" customers** and a **rise of roughly 8% in "free market" customers**; the **gas** market also rose, with an **increase in customers of around 3%** (see table No. 14).

**TABLE NO. 14 – GAS AND ELECTRICITY SALES: ACEA GROUP CUSTOMERS BY MARKET TYPE (2010-2012)**

	2010	2011	2012
protected market (No. of withdrawal points)	1,350,505	1,147,771	1,088,701
free market (No. of withdrawal points)	101,338	218,105	236,652
free gas market (No. of delivery points)	31,559	95,083	97,607

NB.: the withdrawal/delivery points of the residential and VAT number customer segments are taken into consideration.

## THE ENERGY MARKET SEGMENTS

- **protected service:** this is the service for the supply of electricity under economic and contractual conditions established by the Gas and Electricity Authority. Households and small businesses (under 50 workers and annual turnover not exceeding Euro 10 million, connected to low voltage supply) are served under **protected** conditions if they have never changed supplier, or if they have once again requested the application after having entered into contracts on the free market with other suppliers. The conditions of the **protected** service also apply to households and SMEs which remain without electricity suppliers, for example following the insolvency of the latter.
- **free market:** this is the market where the economic and contractual conditions for the supply of electricity are agreed between the parties and not fixed by the Gas and Electricity Authority. Since 1 January 2003, customers have been able to freely choose which supplier of natural gas to use to purchase gas and as from 1 July 2007 which supplier and which conditions to choose for purchasing electricity. Those who exercise this right, enter into the so-called "free" market.

Source: Electricity bill glossary - AEEG.

<sup>25</sup> The majority of the information in fact refers to end customers of the services provided in the area of Rome and province, where Acea manages the integrated water service, the electricity supply (even though the customer can choose from between various suppliers on the deregulated market), the distribution of energy and the public lighting service. Therefore, customers and the community are practically one and the same in this particular area. The figures (economic, environmental and in part social) relating to the investee companies, operative in other areas for the integrated water service, are present - often in aggregate form - in various sections of the report.

<sup>26</sup> According to the Annual report on the state of the services and the activities carried out, 2012 edition, section Structure, prices and quality in the electricity sector, available on-line on the AEEG website, Acea is the second leading operator in Italy in terms of volumes sold to customers on the protected market, with a market share of 4.6%, and the fourth leading operator in terms of volumes sold on the free market, with a share of 4.8%.

## Water service customers

Acea is the **leading operator in Italy for the integrated water service** (collection, transportation, purification, waste water collection and treatment) **in terms of population served**, with a customer base of **around 8.6 million inhabitants in Italy**. The company, traditional operator of the water service in Rome, has progressively extended its activities,

becoming the reference operator care of other Optimum Areas of Operation (ATOs)<sup>27</sup> in the provinces of Rome and Frosinone (Lazio), the provinces of Pisa, Florence, Siena, Grosseto, Arezzo and Lucca (Tuscany), in the areas which range from the Sorrentina peninsular to Vesuvian towns in the provinces of Naples and Salerno (Campania) and in the area of Perugia and Terni (Umbria). The Group also operates in a number of South American countries<sup>28</sup>.

**TABLE NO. 15 – CUSTOMERS AND INHABITANTS SERVED IN ITALY BY THE MAIN ACEA GROUP WATER COMPANIES (2012)**

company	customers served		population served	
	2012		2012	
Acea Ato 2	584,477		3,700,000	
Acea Ato 5	188,214		460,000	
Gori	539,710		1,437,000	
Acque (*)	328,162		798,475	
Publiacqua	382,417		1,258,938	
Umbra Acque	230,000		511,000	
Acquedotto del Fiora	234,132		412,372	
<b>Total</b>	<b>2,487,112</b>		<b>8,577,785</b>	

(\*) the figures for Acque are as of 31 December 2011, since final 2012 data is not yet available

## Perceived quality

Each year Acea entrusts a specialised outside company, identified by means of tender, with the **customer satisfaction surveys** with the aim of surveying the level of customer and citizen satisfaction with regard to the electricity, water and public lighting services.

The Institutional Relations Unit co-ordinated the process, together with the operating companies, following the course of the surveys: from the definition of the questionnaires to the identification of the samples to be interviewed, and the presentation of the results and shared interpretation of the ensuing output.

During 2012, two six-monthly surveys were achieved, carried out using a method<sup>30</sup> which makes it possible to process specific indicators:

- the **overall opinion** on the general quality of the service (expressed on a scale of 1 to 10) , expression of an “impulsive” opinion by the customers;
- overall **summary satisfaction indexes** and those on the macro-components of the service (**Customer Satisfaction Index – CSI Satisfied Customers**, index 0-100) based on the portions of customers who declare they are satisfied and processed considering the opinions of the customers with regard to individual aspects of the service;
- the overall **satisfaction intensity indexes** and those on the macro-components of the service (**Customer Satisfaction Index – CSI Satisfaction Intensity**, scale of 1-10)<sup>31</sup> which measure “how much” the customers are satisfied or unsatisfied with the service.

27 The national territory, on the basis of Italian Law No. 36/1994, so-called “Galli Law”, which reorganised the water services, is divided up into 92 Optimum Areas of Operation which take into account the water catchment areas. With regard to ATOs in which Acea operates through investee companies, please see the section dedicated to the main Group companies under Corporate identity.

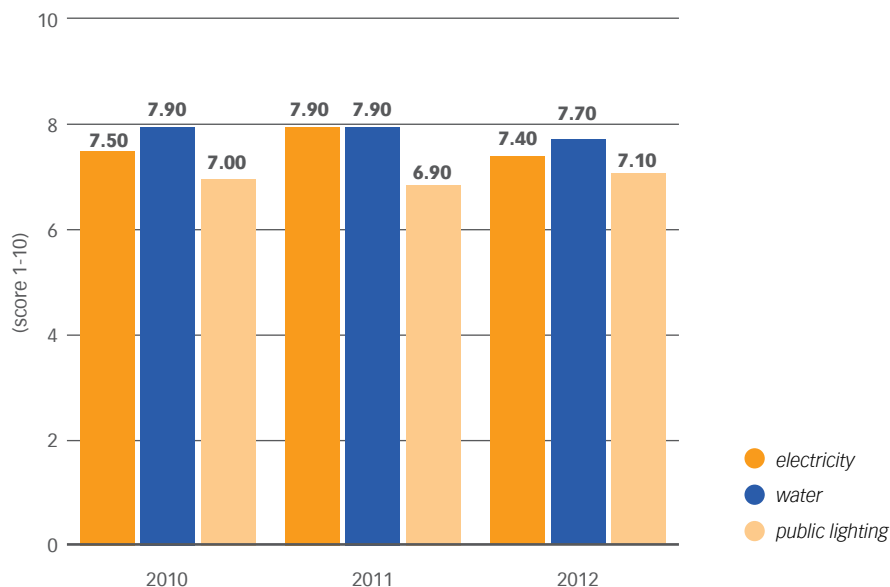
28 See the section Activities abroad.

29 With regard to the water service, besides the surveys carried out on Rome and other municipalities in ATO 2 - Central Lazio, Acea SpA carries out perceived quality surveys on other ATOs, in which it operates via investee companies.

30 CATI method - Computer Assisted Telephone Interviewing, with the aid of a structured questionnaire, on a sample stratified on the basis of variables (such as zones of residence, consumer brackets), featuring a maximum statistical error of 2.8% and a significance level of 95%.

31 The CSI Satisfaction Intensity indexes are created on the basis of the average satisfaction vote and the importance assigned to each aspect.

**CHART NO. 10 - GLOBAL OPINIONS ON THE SERVICES SUPPLIED (2010-2012)**



NB: the values are the average of the two six-monthly surveys for each year

### Assessment of the electricity service

The surveys on the **perceived quality of the electricity supply service** were carried out in June/July and December 2012, via telephone interviews addressing an overall sample of **5,023 customers**, for the **aspects relating to the sale of energy**, handled by Acea Energia, and an overall sample of **4,208 customers**, for **technical-operational aspects** of energy distribution (network), headed up by Acea Distribuzione.

Both for the survey into customer satisfaction regarding the sales activities and regarding the technical aspects, the sample of those interviewed was made up of "domestic" customers and "non-domestic" customers on **the protected market**" (residents in Rome and Formello) and "domestic" and "business" customers on the **free market**. The surveys concerning **contact**

**channels"** involved **customers selected through a "call back" procedure**, in other words people who had recently used the telephone services (free-phone number for sales or that for reporting faults) or had gone to the counter or who had requested service measures, giving authorization to be called back.

The **overall opinion on the electricity service**, both with regard to technical aspects and those concerning sales, remained **satisfactory** between 2011 and 2012, despite registering a slight decrease; in fact the percentage of those interviewed who judged the service, overall, as **between sufficient and excellent** remained high: **89.5%** (90% Network, 89% Sales) (see table No. 16).

**TABLE NO. 16 - OVERALL OPINION ON THE ELECTRICITY SERVICE (2011-2012)**

OPINION	votes 1 - 10	2011		2012	
		(average of the two six-month periods)		(average of the two six-month periods)	
		network	sales	network	sales
excellent	9 - 10	32.0%	32.5%	24.0%	21.5%
good	8	37.5%	39.0%	35.0%	35.5%
sufficient	6 - 7	25.5%	24.5%	31.0%	32.0%
insufficient	1 - 5	5%	4.0%	10.0%	11.0%
<b>total average</b>		<b>7.8</b>	<b>7.9</b>	<b>7.5</b>	<b>7.3</b>

For a more accurate presentation of the results, the outcome of the surveys relating to the sales activities, both on the protected market and, for the first time this year, on the free market and the outcome of the surveys on technical-operational aspects, are presented separately further on in this section.

With regard to **sales activities**, the survey, addressing customers of the protected and free markets, was divided up into **4 macro-components of the service** - billing, sales free-phone number relationship, counter relationship and website - for each one of which the **summary satisfaction index** and the **satisfaction intensity index** were calculated and the overall indexes defined.

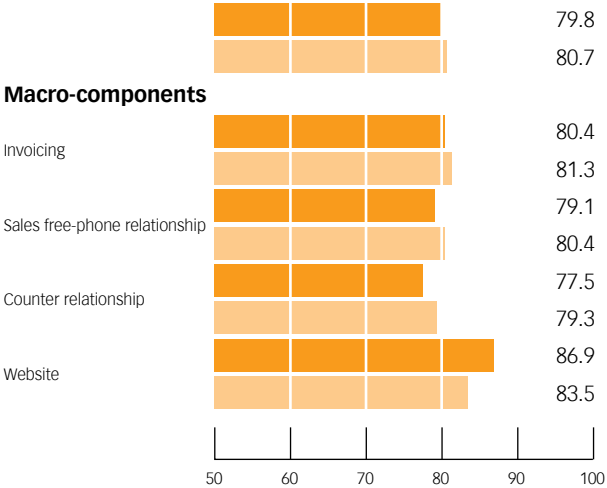
The results for the two six-month periods reveal that the **handling of the commercial and contact**

**aspects for protected market customers, despite remaining satisfactory** in the overall index (80.2 out of 100) **disclosed a drop** with respect to last year's surveys (87.3 out of 100); the aspects for which customer **appreciation decreased the most** were **billing** (from 89.4 in the second half of 2011 to 81.3 in the same survey period of 2012) and **counter relations** (from 91.7 in 2011 to 79.3 in the second half of 2012); the **appraisal of the website by contrast remained positive**.

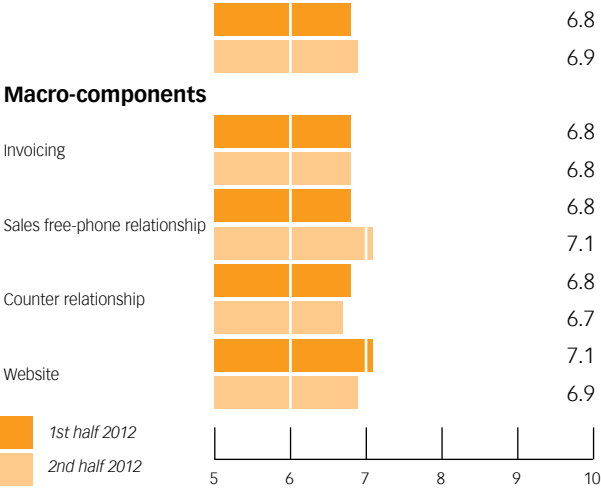
The same aspects assessed by the customers of the **free market** disclosed a level of satisfaction equal to 76.4 out of 100, a deterioration of the "counter relationship" quality factor between the first and second half of the survey period (from 79.1 to 66.8) and an excellent level of satisfaction on the website (see chart No. 11 and 12).

**CHART NO. 11 - ELECTRICITY SERVICE – PROTECTED MARKET SALES: OVERALL CUSTOMER SATISFACTION CSI AND SATISFACTION INTENSITY CSI AND ON MACRO-COMPONENTS (1ST AND 2ND HALF OF 2012)**

**OVERALL CSI - SATISFIED CUSTOMERS**



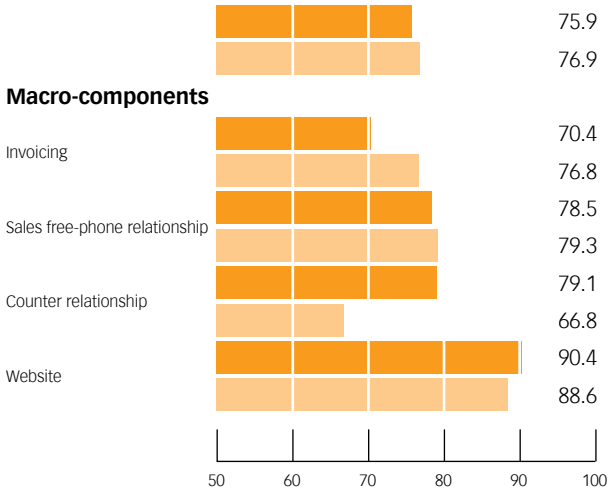
**OVERALL CSI - SATISFACTION INTENSITY**



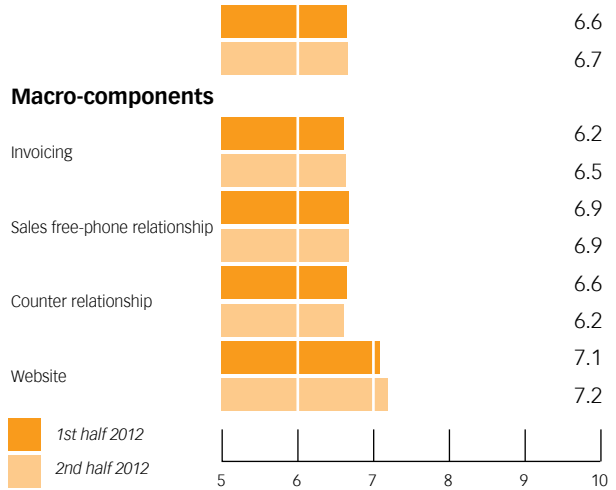


**CHART NO. 12 - ELECTRICITY SERVICE – FREE MARKET SALES: OVERALL CUSTOMER SATISFACTION CSI AND SATISFACTION INTENSITY CSI AND ON MACRO-COMPONENTS (1ST AND 2ND HALF OF 2012)**

**OVERALL CSI - SATISFIED CUSTOMERS**



**OVERALL CSI - SATISFACTION INTENSITY**



With regard to the main **quality aspects** of the electricity **sales service** assessed by the **customers of the protected market**, whilst there was **satisfactory appreciation for certain elements** such as **courtesy** and **the skill of the operator** or the **ease of navigation** of the website and the range of **possible on-line transactions**, there was a significant decrease, within the counter component, with regard to satisfaction for **waiting time to speak to an operator** (from 88% in 2011 to 62% in 2012). With regard to **free market customers**, the percentages

of satisfaction on the specific aspects of quality, published for the first time in this edition, were in general high; however, certain aspects of the service received minor appreciation: the **correctness of the amounts** and the **ease in reading bills**, within the **billing** component, even if the surveys showed an improvement between the first and second half of the year, and **waiting time to speak to an operator** within the two sales and counter free-phone number components; in conclusion, the data relating to the website was satisfactory also for the free market customers (see table No. 17).

**TABLE NO. 17 - ELECTRICITY SERVICE (SALES - PROTECTED AND FREE MARKETS): PERCENTAGE OF THOSE SATISFIED ON SPECIFIC ASPECTS (2012)**

**% OF SATISFIED CUSTOMERS**

<b>SALES ON PROTECTED MARKET</b>	<b>1ST HALF OF 2012</b>		<b>2ND HALF OF 2012</b>	
invoicing	• regular sending of bills, without delays	84%	• regular sending of bills, without delays	87%
	• correctness of billing amounts	81%	• correctness of billing amounts	81%
	• ease in reading bills	76%	• ease in reading bills	78%
sales free-phone number	• courtesy of operator	92%	• courtesy of operator	92%
	• range of possible transactions	85%	• range of possible transactions	84%
	• clarity of the responses provided by operator	77%	• clarity of the responses provided by operator	77%
	• waiting time for speaking to the operator	77%	• waiting time for speaking to the operator	78%
counter	• courtesy of operator	92%	• courtesy of operator	91%
	• skill of operator	83%	• skill of operator	84%
	• opening hours	88%	• opening hours	87%
	• waiting time for speaking to the operator	58%	• waiting time for speaking to the operator	62%
website	• navigation ease	89%	• navigation ease	89%
	• range of possible transactions	88%	• range of possible transactions	83%
	• comprehensibility of commercial offers	86%	• comprehensibility of commercial offers	83%

<b>SALES ON FREE MARKET</b>	<b>1ST HALF OF 2012</b>		<b>2ND HALF OF 2012</b>	
invoicing	• regular sending of bills, without delays	78%	• regular sending of bills, without delays	83%
	• correctness of billing amounts	68%	• correctness of billing amounts	77%
	• ease in reading bills	69%	• ease in reading bills	71%
sales free-phone number	• courtesy of operator	93%	• courtesy of operator	91%
	• range of possible transactions	80%	• range of possible transactions	80%
	• clarity of the responses provided by operator	87%	• clarity of the responses provided by operator	82%
	• waiting time for speaking to the operator	66%	• waiting time for speaking to the operator	67%
counter	• courtesy of operator	89%	• courtesy of operator	85%
	• skill of operator	86%	• skill of operator	78%
	• opening hours	86%	• opening hours	79%
	• waiting time for speaking to the operator	60%	• waiting time for speaking to the operator	49%
website	• navigation ease	95%	• navigation ease	91%
	• range of possible transactions	85%	• range of possible transactions	88%
	• comprehensibility of commercial offers	95%	• comprehensibility of commercial offers	84%

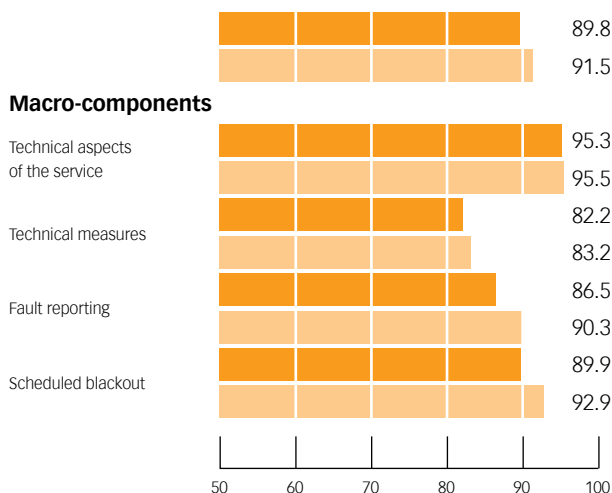
The survey into customer satisfaction with regard to **energy distribution** activities (network) was divided up into **4 macro-components** - technical aspects of the service, technical measures, fault reporting, scheduled blackouts - for each one of which the **summary satisfaction index** and the **satisfaction intensity index** were calculated.

The results for the two six-month periods disclosed,

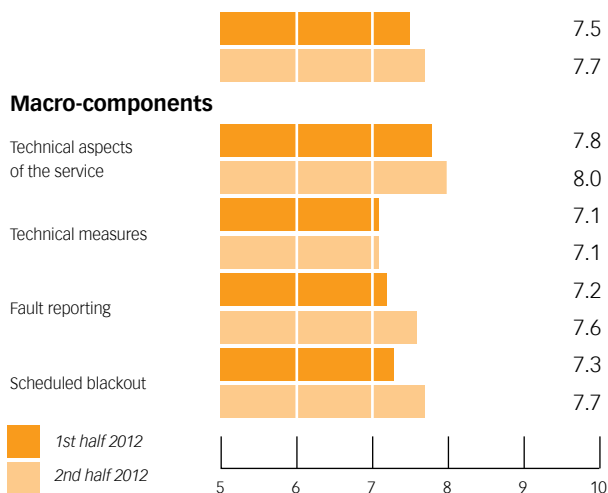
**in the overall indexes, a decidedly high level of appreciation**, 91 out of 100, and a discreet satisfaction intensity (7.6 out of 10). The four macro-components all received positive assessments; in particular, there was an improvement in the opinion on the technical service (from 62 in the second half of 2011 to 83.2 in the equivalent survey in 2012) (see chart No. 13).

**CHART NO. 13 - ELECTRICITY SERVICE - NETWORK: OVERALL CUSTOMER SATISFACTION CSI AND SATISFACTION INTENSITY CSI AND ON MACRO-COMPONENTS (1ST AND 2ND HALF OF 2012)**

**OVERALL CSI - SATISFIED CUSTOMERS**



**OVERALL CSI - SATISFACTION INTENSITY**



The percentages of satisfied customers in relation to the individual quality factors of the macro-components of the electricity distribution service (networks - see table No. 18) were high and disclose a general improvement with respect to last year. In detail, within the “technical measures” component, mention

is made of the figure regarding the efficacy of the measures, rising from 59% of satisfied customers in the second half of 2011 to 83% in the same period of 2012 and the observance of the appointment times (from 60% reported in the second half of 2011 to 82% in the second half of 2012).

**TABLE NO. 18 - ELECTRICITY SERVICE (NETWORK): PERCENTAGE OF THOSE SATISFIED ON SPECIFIC ASPECTS (2012) % OF SATISFIED CUSTOMERS**

NETWORK	1ST HALF OF 2012	2ND HALF OF 2012
technical aspects (supply)	• service continuity	96%
	• voltage constancy	94%
technical measures	• courtesy of engineers	90%
	• measure efficiency	82%
	• observance of appointment times	81%
	• speed in carrying out measures	81%
faults free-phone number	• courtesy of operator	94%
	• clarity of the responses provided	91%
	• correctness of the information	83%
	• waiting time for speaking to the operator	83%
scheduled black outs	• correctness of information on service resumption timescale	90%
	• manner of receiving communication	91%
	• notice timescales	89%

### Assessment of the water service

The surveys into the **quality of the water service perceived by the customers** were carried out in the periods June/July and October/November 2012, by means of telephone interviews carried out on a sample of **3,209 residents** in the municipalities of Rome and Fiumicino.

The sample comprised **domestic customers** and **apartment block administrators**. With regard to the surveys concerning **telephone sales contact and counter contact**, the samples were made up of

customers selected through a **“call-back” procedure**, in other words people who had during the previous days used the free-phone number or gone to the counters, agreeing to be called back.

The **overall opinion** on the water service remained positive between 2011 and 2012, with **96%** of those interviewed expressing a vote of between sufficient and excellent (see table No. 19).

**TABLE NO. 19 - OVERALL OPINION ON THE WATER SUPPLY SERVICE IN ROME (2011-2012)**

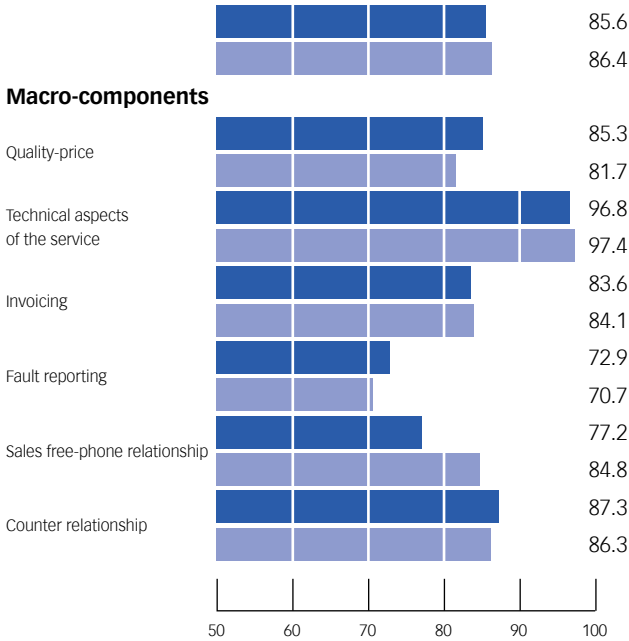
OPINION	votes 1 - 10	2011 (average of the two six-month periods)	2012 (average of the two six-month periods)
excellent	9 - 10	26.0%	21.5%
good	8	40.0%	41.5%
sufficient	6 - 7	31.5%	33.0%
insufficient	1 - 5	2.5%	4.0%
<b>total average</b>		<b>7.9</b>	<b>7.7</b>

The survey concerned **6 macro-components of the water service**; for each one, the **summary satisfaction index** and the **satisfaction intensity index** were calculated. The opinions expressed contributed toward the definition of the overall summary satisfaction indexes (CSI). The surveys for the two six-month periods disclosed a **satisfactory level of appreciation for the service overall** (86 out of 100) and a discreet satisfaction intensity (7.2 out of 10). With regard to the macro-components

of the services, even though the satisfaction levels are still good, there was a general drop with respect to the previous year’s surveys, except for the technical aspects which maintain a high level of appreciation and are in line with 2011; the fault reporting and sales free-phone number reported lower satisfaction, even if the call center improved during the second half of the year. The opinion on the counter relationship received high levels of appreciation (see chart No. 14).

**CHART NO. 14 - WATER SERVICE: OVERALL CUSTOMER SATISFACTION CSI AND SATISFACTION INTENSITY CSI AND ON MACRO-COMPONENTS (1ST AND 2ND HALF OF 2012)**

**OVERALL CSI - SATISFIED CUSTOMERS**



**OVERALL CSI - SATISFACTION INTENSITY**

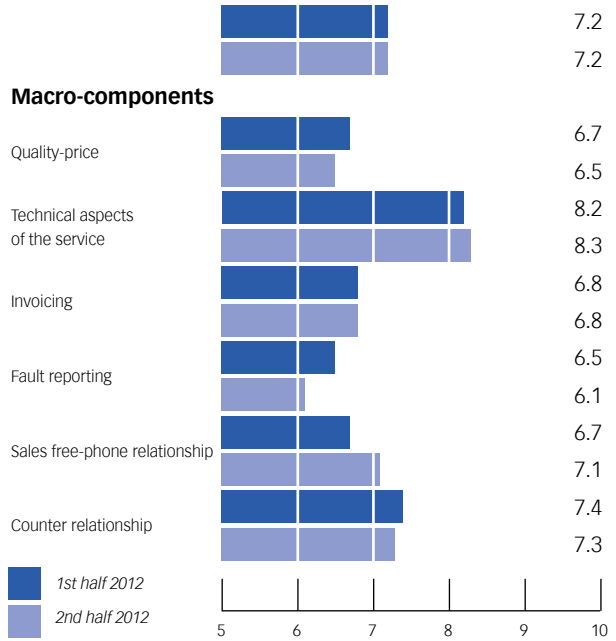


Table No. 20 presents **the percentages of satisfied customers** in relation to the **individual quality factors** of 5 macro-components<sup>32</sup> of the water service, on the basis of which summary satisfaction indexes have been drawn up. Among the technical aspects, the **continuity of the supply** received particular appreciation; within the fault free-phone number, the aspect of **“waiting time to speak to an operator”** still presents unsatisfactory appreciation even if it has

risen with respect to the 50% satisfied in the second half of 2011; with regard to the quality factors of the sales free-phone number, the same criticalities are revealed but the percentage of those satisfied with regard to waiting time improved decidedly in the second half of the year. With regard to the various factors assessed within the “counter relationship” component, high percentages of satisfied customers were revealed.

<sup>32</sup> The “quality-price” ratio component has been surveyed using just one question, without additional analysis factors.

**TABLE NO. 20 - ROME WATER SERVICE: PERCENTAGE OF THOSE SATISFIED ON SPECIFIC ASPECTS (2012)**

**% OF SATISFIED CUSTOMERS**

	<b>1ST HALF OF 2012</b>		<b>2ND HALF OF 2012</b>	
technical aspects (supply)	• supply continuity	98%	• supply continuity	98%
	• water pressure level	93%	• water pressure level	92%
invoicing	• correctness of billing amounts	92%	• correctness of billing amounts	88%
	• clarity and ease of bill reading	86%	• clarity and ease of bill reading	84%
	• regularity in meter reading	76%	• regularity in meter reading	74%
faults free-phone number	• courtesy of operator	96%	• courtesy of operator	84%
	• skill of operator	86%	• skill of operator	76%
	• waiting time for speaking to the operator	57%	• waiting time for speaking to the operator	59%
sales free-phone number	• courtesy of operator	89%	• courtesy of operator	91%
	• skill of operator	83%	• skill of operator	86%
	• waiting time for speaking to the operator	68%	• waiting time for speaking to the operator	79%
counter relationship	• courtesy of operator	93%	• courtesy of operator	91%
	• skill of operator	89%	• skill of operator	89%
	• counter opening hours	89%	• counter opening hours	89%
	• waiting time for speaking to the operator	78%	• waiting time for speaking to the operator	78%

**SATISFACTION SURVEYS ON THE WATER SERVICE IN OTHER ATO 2 – CENTRAL LAZIO MUNICIPALITIES AND OTHER ATOS**

The customer satisfaction surveys to discover customers' level of satisfaction with the water service provided are carried out not only in Rome and Fiumicino, but also in other municipalities in ATO 2 – Central Lazio.

In 2012, the two six-monthly surveys covered 7 municipalities in the province of Rome in which the company has operated for some years, in order to discover the opinion of customers in relation to improvements made in the area. Overall, 2,022 residents were interviewed: 1,436 in 5 "standard" municipalities, in other words run without criticalities (Galliciano, Segni, Cerveteri, Mentana, Fonte Nuova), and 586 in 2 municipalities "under observance" (Zagarolo and Frascati); the overall opinion revealed was equal to 6.5 (scale of 1 to 10) for the first type of municipality and 7 (scale of 1 to 10) for the second.

Acea also carries out customer satisfaction surveys with customers of other companies in the Group that manage the integrated water service in other ATOs (in Lazio, Campania, Tuscany and Umbria), sharing both the layout of the surveys and their results with these companies.

**Assessment of the public lighting service**

The **quality of the public lighting service** perceived by the citizens of Rome was surveyed in June and October 2012, by means of telephone interviews on a total sample of **2,411 inhabitants**, representative of all the municipalities, grouped into 3 urban macro-areas:

central-north, east-southeast, south-west Rome.

The **overall opinion** remained stable and positive, with **88.5%** of those interviewed expressing a vote ranging between sufficient and excellent (6-10) (see table No. 21).

**TABLE NO. 21 - OVERALL OPINION ON PUBLIC LIGHTING IN ROME (2011-2012)**

<b>OPINION</b>	<b>votes 1 - 10</b>	<b>2011 (average of the two six-month periods)</b>	<b>2012 (average of the two six-month periods)</b>
excellent	9 - 10	12.0%	13.0%
good	8	27.0%	29.5%
sufficient	6 - 7	46.0%	46.0%
insufficient	1 - 5	15.0%	11.5%
<b>total average</b>		<b>6.9</b>	<b>7.1</b>

The survey concerned **2 macro-components of the public lighting service** - technical aspects of the service and the fault reporting service - for each one of which the **summary satisfaction index** and the **satisfaction intensity index** were calculated and the overall summary satisfaction indexes defined (CSI).

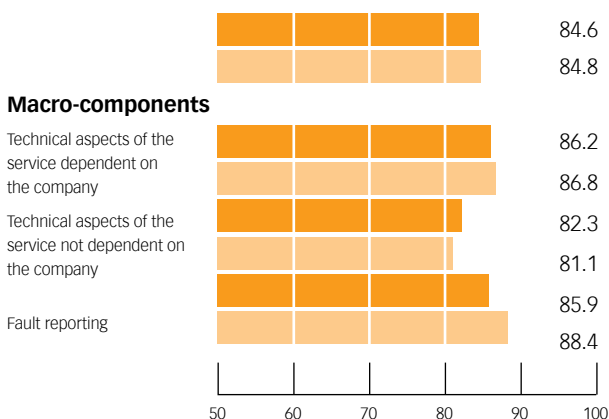
With regard to the “**technical aspects of the service**”, differentiation was made between those attributable to Acea operations - service continuity (in other words the absence of faults or inefficiencies in the city); switching on and off times and the colour of the lights - and those dependent on other parties<sup>33</sup> - presence and extension

of the service; intensity of the street, pavement, parks and gardens lighting; lighting of monuments - and have been graphically represented by two separate items.

The results for the two six-month periods (see chart No. 15) disclosed **appreciation for the service overall** (84.7 out of 100) and a discreet satisfaction intensity (6.8 out of 10). Both **the technical aspects attributable to the company** and the telephone contact for **reporting faults** received satisfactory opinions, the latter having improved with respect to last year, in the second half reaching a satisfaction level of 88.4 (80.5 in the same period of 2011).

**CHART NO. 15 - PUBLIC LIGHTING SERVICE: OVERALL CUSTOMER SATISFACTION CSI AND SATISFACTION INTENSITY CSI AND ON MACRO-COMPONENTS (1ST AND 2ND HALF OF 2012)**

**OVERALL CSI - SATISFIED CUSTOMERS**



**OVERALL CSI - SATISFACTION INTENSITY**

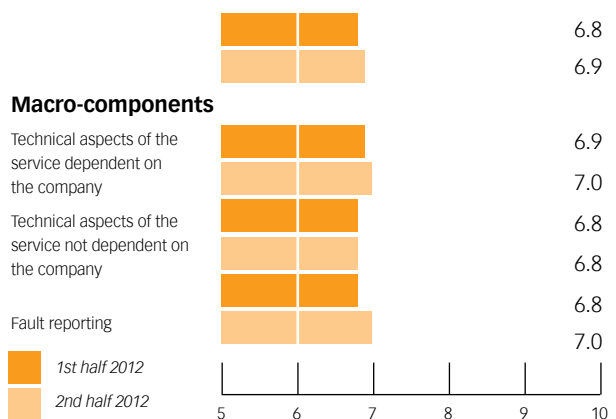


Table No. 22 shows the **percentages of satisfied customers** in relation to the **main quality factors** of the macro-components of the public lighting service. With regard to all the factors indicated, in 2012 the percentages of satisfied customers was higher than in the previous year; specifically, in relation to the **fault reporting** service there was a marked increase in the percentage of those satisfied with the skill of the operator (from 82% in the second half of 2011 to 93% in

the same period of 2012) and with the telephone waiting times (from 71% in the second half of 2011 to 85% in 2012).

In relation to the **colour of the lighting** of the street lamps, those interviewed were asked (as an additional aspect) if they found the “white” light (typically LED) or the “yellow” light more pleasant; it emerged that even if 25% found both to their liking, **the majority**, i.e. 41%, **appreciated white light lighting more.**

<sup>33</sup> The public lighting measures in the urban area in fact follow the indications of the Municipality of Rome, for whom Acea performs the service. The intensity of the street, pavement, parks and gardens lighting can also be altered by factors unconnected with company management, such as the presence of tree foliage, pending pruning activities.

**TABLE NO. 22 - PUBLIC LIGHTING SERVICE: PERCENTAGE OF THOSE SATISFIED ON SPECIFIC ASPECTS (2012)**  
**% OF SATISFIED CUSTOMERS**

	1ST HALF OF 2012		2ND HALF OF 2012	
technical aspects attributable to Acea	• colour of light	92%	• colour of light	93%
	• switching on/off times	91%	• switching on/off times	91%
	• service continuity in city	84%	• service continuity in city	85%
technical aspects attributable to third parties	• lighting of historic monuments/squares	93%	• lighting of historic monuments/squares	92%
	• presence of service in city	83%	• presence of service in city	85%
	• intensity of street lighting	82%	• intensity of street lighting	80%
faults free-phone number	• courtesy of operator	91%	• courtesy of operator	94%
	• skill of operator	89%	• skill of operator	93%
	• waiting time for speaking to the operator	82%	• waiting time for speaking to the operator	85%
	• ease in finding the line free	81%	• ease in finding the line free	84%

## Supplied quality

The **measures aimed at improving the infrastructures** (networks and plants), the optimisation of the management processes, the monitoring of the efficacy and promptness of measures in the event of faults or unavailability of parts of the network, are fundamental factors, upstream from the relationship with the customers, which **influence the end quality of the services provided**. Also direct contact with the customers, in order to be efficient and improve, presupposes the implementation of adequate commercial management instruments and the training of dedicated staff.

A number of elements of “supplied quality” are measured on the basis of reference parameters established by the sector Authorities or indicated in the service contracts and in the management agreements with other local bodies:

- the technical and commercial quality standards in the **energy sector**, both for distribution and for sales, are established by the Gas and Electricity Authority (AEEG).
- the new agreement entered into between Acea and the Public Administration Authority for the **public lighting** service with regard to the quality of the service confirmed the quality parameters (performance standards) envisaged in the previous service agreement;
- with regard to the **water sector**, reference is made to the Service charter, User Regulations and other quality parameters envisaged by Service Conventions regulating relations between the operator and the ATO

authority; as from 2012, the regulation and control of the sectors was entrusted to the AEEG, which shall progressively issue the regulatory acts.

The Company is obliged to comply with quality parameters established by the counterparts which also envisage incentive systems, **with bonuses for good performances and penalties in the event of failure to comply with standards**. Customers are also entitled to automatic rebates for certain services in the event of failure to comply with quality standards.

Acea SpA has a **Quality management system** as per the **UNI EN ISO 9001:2008**<sup>34</sup> standard, confirmed in 2012, for the design, construction and maintenance activities on water service and public lighting networks and systems carried out by the operating companies. The same operating companies, as specified further on, have autonomously implemented certified Management systems.

### Quality in the energy sector

**Acea Distribuzione**, in its capacity as operator of the network and holder of the ministerial concession for the **electricity distribution service in the area of Rome and Formello**, plans and carries out measures for **the modernisation and extension of the infrastructures**, comprising high, medium and

<sup>34</sup> Acea is UNI EN ISO 9001:2008 standard certified for “the design, construction, maintenance and restructuring of the networks and plants for the management of the integrated water service”, handled by Acea Ato 2 in Rome and province, and for the “design, installation, maintenance and restructuring of the networks and plants for the global and integrated management of the public lighting systems”, run by Acea Distribuzione in Rome.



low voltage electricity lines, stations and sub-stations, systems for remote control and measuring the energy withdrawn and introduced. The company is certified in accordance with the UNI EN ISO 9001:2008 (**Quality**), UNI EN ISO 14001:2004 (**Environment**) and OHSAS 18001:2007 (**Safety**) standards, on a consistent basis with the highest level of attention to the operating procedures.

The measures are implemented in compliance with the concession, sector legislation (legislative provisions and Resolutions of the AEEG) and the service requirements, in particular for the concession of new customers related to the creation of new urban areas, the expansion of manufacturing activities, the increase in electricity applications, etc. The purpose of the same is to achieve the progressive **improvement of the service quality** as well as **increase the energy efficiency of the networks** (see the main measures in table No. 23).

The Road Map, implemented in the four-year period 2008-2011 **has made it possible to achieve extremely positive results with regard to the service continuity indicators** and has produced other **significant benefits for operational management**. Thanks to the consistent decrease in the number and duration of blackouts, once again in 2012 the Gas and Electricity authority acknowledged Acea Distribuzione, within the sphere of the incentive and fine system which disciplines the sector, an **incentive of around Euro 5.5 million**, for the 2011 performances (see tables 32 and 33).

In continuity with the Road Map Project, Acea

Distribuzione has drawn up its own business plan referring to the period 2012-2016, which contemplates numerous measures for extending and modernising the infrastructures. These include the accomplishment of the **technological innovation projects** – and specifically the **Smart grid**<sup>35</sup> and **Smart-network Management System**<sup>36</sup> projects (see related section and box under *Environmental issues, Energy*) -, **the application of technologies already tested successfully in the Road Map project**, such as for example **the Petersen systems**, installed and functioning in 45 stations out of a total of 69 stations running, as well as **“smart grid” technologies**, evolved technical solutions for the control of the networks and the improvement of the efficiency and continuity of the service.

The technological innovation projects are divided up into sub-projects, each of which concerns a specific research or development sphere. In detail, **during 2012** an initial version of **the ORBT** project (Ottimizzazione della Rete di Bassa Tensione - Optimisation of the Low-Voltage Network) **was developed**. This is **an application which makes it possible to establish the features and functioning conditions of the portions of network**, so as to identify critical parts for the continuity of the service and the possible layout variations which permit the optimisation of the running of the same (see related box).

Furthermore, Acea Distribuzione, together with Enel, launched a project for the **installation in Rome of 200 charging stations for electric vehicles** (see related box). Investments in 2012 pertaining to Acea Distribuzione amounted in total to **Euro 99.1 million budget-wise**.

35 The project, with a value of Euro 4.9 million, presented in November 2010 to the AEEG, was selected and admitted among the pilot projects subject to incentives in the first few months of 2011 and then implemented during 2012. Its completion is envisaged by the end of the first half of 2013.

36 The project entitled Smart Network Management System, with a value of around Euro 11 million, was presented to the Ministry for economic development so as to benefit from the financial grants using the Fund for technological innovation (FIT) in June 2010 and was admitted in 2011 to the contractual stage. During 2012, following the positive outcome of the negotiation phase, Acea Distribuzione presented the executive project, now being assessed by the competent bodies, and the project-related activities were launched.

## THE ORBT PROJECT (OPTIMISATION OF THE LOW-VOLTAGE NETWORK)

During 2012, the ORBT (Optimisation of the Low-Voltage Network) application was developed, useful for gaining a more in-depth awareness of the LV distribution network in the Rome municipal area, identifying the critical areas concerning the running conditions of the network and calculating an optimised set-up by means of specific algorithms.

Specifically, the ORBT system is able to:

- associate the individual LV customer (identified by means of their own POD = Point of Delivery) with a specific road unit of the network, according to minimum geometric distance logics and on the basis of the POD - Power sub-station association (supplied by the sub-station concentrator equipment);
- identify the normal running set-up of the LV lines;
- detect critical running conditions (high saturation) both with regard to the LV line sections and the sub-station transformers;
- assess optimised network set-ups, according to precise logics which make it possible to balance the load and the number of PODs pertaining to the MV/LV transformers, reduce the saturation of the network sections and at the same time the energy losses.

During the year, **the first phase of the ORBT project concluded**: in point of fact, the **functioning of the application was tested** with regard to the afore-mentioned objectives, without yet developing evolved methods for the acquisition of the data originating from the various systems in use. The second stage of the project is therefore expected to be developed in 2013, creating automation procedures for integrating the application with other computerised information systems and defining other functions. Via the characteristic of associating each LV user with a specific network point, the application makes it possible to identify all the customers affected by each blackout event, as envisaged by legislative developments.

## ACEA DISTRIBUZIONE'S MEASURES ON ELECTRIC MOBILITY IN ROME: 2012 PROGRESS

Downstream from the memorandum of association signed in 2011 between Acea and Enel **for the experimental installation in Rome of recharging stations for electric vehicles**, during 2012 the agreement was furthered finalised with a new protocol also signed by Rome City Council and the implementation phase was launched **for installing 200 recharging stations** (50% by Acea and 50% by Enel). In fact, during the year the locations for the recharging infrastructures were identified. These are areas adjacent to city hall premises, institutional bodies, schools and shopping centres. Many sites are close to Acea Distribuzione installations so as to promote the use of the stations for recharging the fleet of electric vehicles which Acea Distribuzione has equipped its operational teams with.

Projects have been put together with the aim of obtaining authorisations, as per current legislation, and have been forwarded to Rome City Council for the calling of the Service Conferences. Two of the three Conferences envisaged have already been called during the year and the procedure for acquisition of the opinions of the bodies involved is active.

Acea Distribuzione has started to acquire the recharging infrastructures and the aim is to proceed with the installation, after obtaining the authorisations, in the first half of 2013. In addition to the aspects concerning the **measures on the network for the physical connection of the recharging stations**, the installations require **adjustments in the system for the transmission, registration and accounting of the energy withdrawn** by the users, as well as the activation of specific contracts by the sales companies. This initial installation project, therefore, will make it possible to also gain experience for the handling of these infrastructures in view of future hoped for development of electric power in the civil traffic sector.

**TABLE NO. 23 - MAIN MEASURES IN 2012 FOR THE MANAGEMENT AND DEVELOPMENT OF ELECTRICITY NETWORKS AND STATIONS**

<b>HV lines and primary stations</b>	<p>the <b>creation of the electricity line has been launched</b>, involving underground cables, <b>to power (at 150 kV) the Primary Casal Palocco station</b> from the Vitinia PS which will allow <b>a significant improvement in the running reliability</b> of all the primary stations which power the coastal areas (Casal Palocco PS, Lido PS and New Lido PS) and work for burying the 150 kV "Aniene - San Basilio - Tor Cevara overhead line has commenced, for around 2.4 km, in the Casal Monastero district.</p> <p><b>Two new primary stations</b> have been constructed: the <b>Parks PS</b>, in the Castel Romano area, to support the increase in energy demand of the industrial area with the same name, and the <b>Malagrotta PS</b>, for the HV connection of an important production plant and <b>work has been commenced on the construction of the new Torrenova primary station.</b></p> <p>Furthermore, during 2012 activities were carried out for the renovation, extension and reconstruction of primary stations.</p> <p>The <b>Petersen project</b> continued during the year with the installation of the system at <b>another 2 primary stations.</b> Therefore, as of 31 December 2012 the system was installed in 45 out of a total of 69 stations.</p>	
<b>HV and MV protection and measures</b>	<p>measures were carried out to arrange, calibrate and bring onto stream <b>electricity protection systems</b> for 30 new MV line bays; ordinary and extraordinary maintenance measures were carried out on electrical protections (checking of the functions/tests &amp; inspections) at primary stations, structured as follows: 406 HV and MV stanchions, 45 HV/MV and MV/MV transformers.</p> <p>20 networks analyzers were installed to check the MV voltage quality. Earth resistance measures were carried out at <b>4,098 secondary stations</b>; the section and contact voltages were checked on 22 secondary stations and 8 primary stations.</p> <p>Electrical protections and automated elements were arranged, relating to the activation of the Petersen systems at 4 primary stations. The electrical protection systems of 37 recloser devices were tested, inspected, calibrated and brought onto stream.</p>	
<b>MV and LV lines</b>	<p>for the modernisation and enhancement of the network, gradually being transformed from 8.4 kV to 20kV, around <b>302 km of 20kV MV</b> underground cables were laid for renovations and 75 km for extensions.</p>	<p>around <b>180 km of LV cables</b> laid involving extensions and renovations aimed at replacing old and worn parts or making up for insufficient parts, of which 95 km for renovations and the remaining 85 km for extensions; <b>208 network improvement measures</b> were carried out as part of the activities aimed at <b>improving the service quality</b>;</p> <p><b>voltage change measures</b> were carried out on the LV networks, from 220 V to 380 V, involving 7,240 customers.</p>
<p>within the sphere of <b>extraordinary maintenance</b> on MV overhead lines:</p> <p><b>80 measures</b> were carried out for the replacement of equipment, supports, conductors, etc.</p> <p><b>around 568 km of lines were inspected</b> so as to check the state of maintenance and functioning.</p>		
<b>secondary (MV and LV) and remote control stations</b>	<p>to satisfy the demand for new connections to the network and the increases in voltage of existing customers, <b>212 secondary stations were constructed or extended</b></p>	<p><b>1,063 operative stations were rebuilt</b>, to adjust them to 20 kV, make them remote control-ready or renew equipment;</p> <p>furthermore, <b>801 extraordinary maintenance measures, 48 ordinary maintenance measures</b> and <b>3,595 inspections</b> were carried out to check the state of maintenance and functioning of the equipment and/or premises/constructions.</p>
<p>remote control extended to a further 314 secondary stations and 37 reclosers taking the number of <b>remote controlled MV nodes</b> as of 31 December 2012 to <b>around 5,300 units</b>, of which 153 motorised-pole switches.</p>		

Acea Distribuzione continued during 2012 to apply the **system for controlling and monitoring the quality and safety parameters of the work** tendered out, via onsite checks, carried out by the Site Inspection Unit (see related box in the *Suppliers* section, under **Vendor Rating**).

In conclusion, work to **install digital meters, for remote management** continued at end customers: during the year, around **22,100 digital meters** were installed, bringing the **total to more than 1.5 million operating meters as of 31 December 2012** equal to around 97% active users, exceeding the 95% quota required by legislation laid down by the AEEG.

### **The quality levels regulated by the AEEG**

**The quality parameters for the electricity service** in relation to **commercial aspects** (quotes, work, activation/deactivation of the supply, replies to complaints) and **technical aspects** (continuity of the supply) **are established** at national level by the **Gas and Electricity Authority** (AEEG), which periodically reviews them, gradually introducing more stringent standards. The Authority issued the Resolutions<sup>37</sup>, currently in force, aimed at **regulating the quality of the electricity and gas distribution, metering, transmission and sales services for the IVth regulation period, 2012-2015**. The regulatory system envisages compensation to be paid to customers in the event certain quality standards are not observed, along with a fine/bonus system for the service operator, so as to spur the operators to continually improve performances.

The **commercial quality** aspects of the service are structured in **"specific" levels** and **"general" levels**<sup>38</sup>, both for activities which the electricity **distributor** is responsible for (differentiated in terms of low and medium voltage supplies) and for those the **seller** is responsible for (see tables No. 24, 27-31). Each year, Acea forwards the results achieved to the AEEG, which are then checked, and communicates them, as laid down, to its customers, together with the bill.

A quality parameter is linked to the progressive extension of the free market sector, and aims to regulate the promptness of the communication of technical data between the energy distributor and seller (see table No. 26).

Electricity distribution and metering activities are carried out by **Acea Distribuzione**; the **2012 performances**

relating to the **"specific" levels of commercial quality**, both for low voltage supplies to households and other customers and for medium voltage supplies, were **subject to final processing<sup>39</sup> at the time of publication of this report**; however, by way of indication, where possible the **average execution times for the services** and the related percentages of observance of the deadline, estimated, are shown (see table No. 24). The figures, although not yet final, disclose a tendential improvement in all the performances, with the sole exception of "communication of the outcome of the meter check" for low voltage customers which, albeit clearly within the margins of observance of the maximum timescales indicated by the standards, deteriorated with respect to 2011.

Likewise, an overview is provided of the performance of the **"general" levels of commercial quality** for the **distribution and metering** activities (see table No. 29) and the two specific quality levels which regulate the **communication of the technical data** by the Distributor to the Seller (see table No. 26). With regard to the "general" levels, with the exception of the replies to written complaints for metering activities which, despite clearly improving, have not reached the percentage of observance established by the standard, the estimates also disclose in this case an improvement in the performances, while a slight deterioration has been detected in the communication of technical data.

The next edition of the sustainability report will include the final data for 2012, which we expect to confirm the satisfactory levels achieved.

With regard to the **"general" and "specific" commercial quality levels** relating to **sales activities**, carried out by Acea Energia, it is appropriate to reveal that the problems linked to the change in the computerised information systems used for the handling of the customers, which took place last year, and which had already caused an accumulation of requests in 2011 not dealt with within the year, negatively affecting the performance, once again in 2012 continued to produce negative impacts, leading amongst other things to the opening of the sanction procedure by the AEEG against Acea Energia for violation of the general commercial

<sup>37</sup> In detail, Resolution ARG/elt 198/11 (and subsequent amendments and additions) for the quality of the electricity distribution and metering services, managed by the distributor, and Resolution ARG/elt 164/08 (and subsequent amendments and additions) for the quality of electricity and natural gas sales services.

<sup>38</sup> The "specific quality standards" are the deadlines by which the service must carry out a specific activity and envisage, in the event of non-compliance, the payment of automatic compensation to customers; the "general quality standards" are the minimum percentage of services carried out by the relative deadline.

<sup>39</sup> The Gas and electricity authority requested the distribution and metering services operator to communicate the 2012 commercial quality performances on 31 March 2013.

quality standards. The company **therefore made a considerable investment** during the year **in terms of human and economic resources** with the aim of improving the response performances to written

complaints, and thus **obtained the first positive results**, from as early as the second half of the year, which affected the specific and general standards level of both markets (see tables No. 27, 28, 30 and 31).

**TABLE NO. 24 - SPECIFIC LEVELS OF COMMERCIAL QUALITY AND PERFORMANCES ACHIEVED BY ACEA DISTRIBUZIONE (2011-2012)**

(2011: Figures communicated to the AEEG; 2012: estimated figures which may differ from those which will be communicated to the AEEG)

Service	AEEG parameters max. time for execution of services	2011				2012			
		average effective time for execution of services	percentage of services carried out within maximum time	average effective time for execution of services	percentage of services carried out within maximum time	average effective time for execution of services	percentage of services carried out within maximum time	average effective time for execution of services	percentage of services carried out within maximum time
low-voltage supply		household use		non-household use		household use		non-household use	
estimate for work on LV networks	20 working days	7.61	98.79%	8.13	98.28%	6.53	99.69%	6.34	99.30%
execution of simple work	15 working days	5.00	98.87%	5.30	98.33%	4.94	99.80%	4.99	99.74%
connection of supply	5 working days	1.79	98.89%	1.92	98.57%	1.32	99.69%	1.34	99.41%
disconnection of supply upon request of customer	5 working days	2.30	99.24%	2.39	99.17%	0.93	99.69%	1.30	99.27%
re-connection following disconnection due to payment arrears	1 working day	0.16	99.43%	0.23	98.72%	0.24	99.30%	0.29	98.70%
resumption of the supply following faults of the metering equipment (work day requests between 8.00 a.m. and 6.00 p.m.)	3 hours	2.24 hours	84.76%	2.17	85.20%	1.83	94.75%	1.88	94.67%
resumption of the supply following faults of the metering equipment (for non-work day requests or those between 6.00 p.m. and 8.00 a.m.)	4 hours	1.96 hours	93.76%	1.87	96.78	1.85	96.74%	1.79	97.85%
communication of outcome of metering equipment check, on request of customer	15 working days	3.31	99.95%	3.39	100%	8.27	92.66%	7.61	95.48%
communication of outcome of voltage supply check, upon request of customer (*)	20 working days	41.33	66.67%	24.00	66.67%	39.00	50%	16.00	100%
maximum punctuality band for appointments with customers (**)	2 hours	(.)	99.36%	(.)	99.72%	(.)	99.71%	(.)	99.73%

(\*) since 2012, the related working days decreased from 30 to 20 working days

(\*\*) until 2011, the parameter was divided up between personalised and non-personalised appointments, as from 2012 it was combined.

(.) not applicable

service	AEEG parameters max. time for execution of services	2011		2012	
		average effective time for execution of services	percentage of services carried out within maximum time	average effective time for execution of services	percentage of services carried out within maximum time
<b>medium-voltage supply</b>		<b>end customers</b>		<b>end customers</b>	
estimate for work on MV networks (*)	40 working days	-	-	9.06	96.77%
execution of simple work	30 working days	7.17	100%	4.63	100%
connection of supply	5 working days	2.23	94.12%	3.15	100%
disconnection of supply upon request	7 working days	3.23	97.14%	2.68	97.87%
re-connection following disconnection due to payment arrears	1 working day	0.53	96.23%	0.58	96.61%
communication of outcome of metering equipment check, on request of customer	15 working days	4.00	100%	6.43	100%
communication of outcome of voltage supply check, upon request (**)	20 working days	-	-	29.00	100%
maximum punctuality band for appointments with customers (***)	2 hours	(.)	99.46%	(.)	100%

(\*) Parameter introduced in 2012. In detail, the parameter "estimate for work on MV networks" has been included among the specific quality levels as from 2012 whilst until 2011 the AEEG had considered it a general level (see table No. 29)

(\*\*) since 2012, the related working days decreased from 30 to 20 working days

(\*\*\*) until 2011, the parameter was divided up between personalised and non-personalised appointments, as from 2012 it was combined.

(.) not applicable

On a general note, the system of automatic compensation for customers, to be paid for the failed observance of the "specific" quality levels, starts off from a basic amount (see table No. 25), which can double (in the

event of execution of activities in a space of time which is between double and triple the standard) or triple (for execution in a space of time triple the standard).

**TABLE NO.25 – AUTOMATIC COMPENSATION FOR CUSTOMERS IN THE EVENT OF FAILED OBSERVANCE OF THE "SPECIFIC" QUALITY LEVELS (2012)**

BASIC AMOUNTS IN FORCE (EURO)	TYPE OF CUSTOMER
35	low voltage domestic use customers
70	low voltage non-domestic use customers
140	medium voltage customers

NB: compensation is paid to customers by deducting the amount from the bill or by issuing a cheque within **30 days** of the date of the service in question or, at the latest, by three times the period of standard time established for such service, excluding automatic compensation for failure to comply with the punctuality range for appointments, for which the time commences on the date of appointment.

**TABLE NO. 26 - SPECIFIC LEVELS OF COMMERCIAL QUALITY: PROMPTNESS OF THE DISTRIBUTOR IN COMMUNICATING THE TECHNICAL DATA TO THE SELLER (2011-2012)**

**(2011: figures communicated to the AEEG; 2012: estimated figures which may differ from those which will be communicated to the AEEG)**

service	AEEG parameters max. time for execution of services	2011		2012	
		average effective time for execution of services (days)	percentage of services carried out within maximum time	average effective time for execution of services (days)	percentage of services carried out within maximum time
technical data (which can be acquired by reading a meter)	10 working days from receipt of request	7.02	85.73%	9.68	77.66%
technical data (which cannot be acquired by reading a meter)	15 working days from receipt of request	9.85	85.22%	14.34	81.06%

NB: In the event of failure to comply with the above standards, the customer-vendor receives standard automatic compensation amounting to Euro 20

**TABLE NO. 27 - SPECIFIC LEVELS OF COMMERCIAL QUALITY AND PERFORMANCES ACHIEVED BY ACEA ENERGIA - PROTECTED MARKET (2011-2012) (figures communicated to the AEEG)**

service	AEEG parameters max. time for execution of services	2011	2012
		percentage of services carried out within maximum time	percentage of services carried out within maximum time
billing adjustments	90 calendar days	25%	/
double billing adjustments	20 calendar days	/	/
justified reply to written complaints	40 calendar days	35.6%	58%

NB: The protected service customers (mainly households and small businesses) in the event of failure to observe the standards receive automatic compensation of Euro 20. In the period, no requests were received for billing adjustments or double billing.

**TABLE NO. 28 - SPECIFIC LEVELS OF COMMERCIAL QUALITY AND PERFORMANCES ACHIEVED BY ACEA ENERGIA - FREE MARKET (2011-2012) (figures communicated to the AEEG)**

service	AEEG parameters max. time for execution of services	2011	2012
		percentage of services carried out within maximum time	percentage of services carried out within maximum time
billing adjustments	90 calendar days	100%	25.6%
double billing adjustments	20 calendar days	/	33%
justified reply to written complaints	40 calendar days	21%	73.7%

**TABLE NO. 29 - GENERAL LEVELS OF COMMERCIAL QUALITY AND PERFORMANCES ACHIEVED BY ACEA DISTRIBUZIONE (2010 - 2011) (2011: figures communicated to the AEEG; 2012: estimated figures which may differ from those which will be communicated to the AEEG)**

Service	AEEG parameters minimum percentage of services to be carried out within max. time	2011				2012			
		average effective time for execution of services	percentage of services carried out within max. time	average effective time for execution of services	percentage of services carried out within max. time	average effective time for execution of services	percentage of services carried out within max. time	average effective time for execution of services	percentage of services carried out within max. time
low-voltage supply		household use		non-household use		household use		non-household use	
execution of complex work	85% within 60 working days	12.50	100%	14.10	99.15%	16.86	99.02%	17.39	99.24%
response to written complaints/ written requests for information regarding the distribution activities(*)	90% within 30 calendar days	13.47	97.91%	13.14	98.87%	19.72	99.81%	19.28	99.36%
response to written complaints/ written requests for information regarding metering activities	90% within 30 calendar days	27.54	28.35%	29.56	30.68%	41.01	84.68%	28.42	81.76%

(\*) up until 2011 the reference period indicated by the AEEG was 20 working days, as from 2012 became 30 working days



service	2011		2012		
	AEEG parameters minimum percentage of services to be carried out within max. time	average effective time for execution of services	percentage of services carried out within max. time	average effective time for execution of services	percentage of services carried out within max. time
<b>medium-voltage supply</b>		<b>end customers</b>	<b>end customers</b>		
estimate for work on mv networks (*)	90% within 40 working days	12.47	96.10%	-	-
execution of complex work	90% within 60 working days	8.70	100%	13.43	100%
response to written complaints/ written requests for information regarding the distribution activities (**)	95% within 30 calendar days	9.20	99.33%	16.26	100%
response to written complaints/ written requests for information regarding metering activities	95% within 30 calendar days	23.50	50%	19.00	75%

(\*) as from 2012, the parameter has been included among the specific quality levels (see table No. 24)

(\*\*) up until 2011 the reference period indicated by the AEEG was 20 working days, as from 2012 became 30 working days

**TABLE NO. 30 - GENERAL LEVELS OF COMMERCIAL QUALITY AND PERFORMANCES ACHIEVED BY ACEA ENERGIA - PROTECTED MARKET (2011-2012) (figures communicated to the AEEG)**

service	2011		2012
	AEEG parameters minimum percentage of services to be carried out within max. time	percentage of services carried out within max. time	percentage of services carried out within max. time
response to written requests for information	95% within 30 calendar days	27.88%	85.9%
response to written requests for billing adjustments	95% within 40 calendar days	43.25%	82.8%

**TABLE NO. 31 - GENERAL LEVELS OF COMMERCIAL QUALITY AND PERFORMANCES ACHIEVED BY ACEA ENERGIA - FREE MARKET (2011-2012) (figures communicated to the AEEG)**

service	2011		2012
	AEEG parameters minimum percentage of services to be carried out within max. time	percentage of services carried out within max. time	percentage of services carried out within max. time
response to written requests for information	95% within 30 calendar days	10.98%	75.6%
response to written requests for billing adjustments	95% within 40 calendar days	17.04%	64.5%

The **Authority** defines and updates the reference parameters of the **“technical” quality** of the service<sup>40</sup>, relating to the **continuity of the electricity supply**, envisaging an incentive system for the operator (bonuses and fines) and compensation for customers.

At the time this document went to press, **the continuity indicators** relating to 2012 had not yet been completely defined, however, the provisional figures currently

available (see tables No. 32 and 33) suggest that the performance results achieved by Acea Distribuzione with regard to duration and number of blackouts in the energy supply are positive, on a consistent basis with the last few years, and that, after their consolidation and confirmation<sup>41</sup> further to the preliminary check of the AEEG, no fines will have to be paid to the Authority.

**TABLE NO. 32 - ELECTRICITY SERVICE CONTINUITY INDICATORS FOR LV CUSTOMERS: BLACKOUT DURATION AND IMPROVEMENT PERCENTAGES**  
(2010-2011: figures certified by the AEEG; 2012: estimated figures which may differ from those which will be communicated to the AEEG)

	average cumulative duration of long blackouts without warning attributable to the operator for LV customers per year (minutes)			improvement percentage	
	2010	2011	2012	2012 vs. 2010	2012 vs. 2011
high concentration	47.78	34.75	35.4	-25.9%	1.9%
average concentration	66.84	48.04	62.1	-7.1%	29.3%
low concentration	113.46	78.14	94.7	-16.5%	21.2%

NB: the three territorial areas are defined on the basis of the degree of concentration of the resident population: more than 50,000 inhabitants is “high concentration”; between 5,000 and 50,000 inhabitants is “average concentration”; less than 5,000 inhabitants is “low concentration”.

The **average annual number of blackouts** for low voltage takes into account both long blackouts (> 3 minutes) and short blackouts (< 3 minutes but over one second).

**TABLE NO. 33 - ELECTRICITY SERVICE CONTINUITY INDICATORS FOR LV CUSTOMERS: AVERAGE NUMBER OF BLACKOUTS AND IMPROVEMENT PERCENTAGES**  
(2010-2011: figures certified by the AEEG; 2012: estimated figures which may differ from those which will be communicated to the AEEG)

	average number of blackouts without warning attributable to the operator for LV customers per year			improvement percentage	
	2010	2011	2012	2012 vs. 2010	2012 vs. 2011
high concentration	2.39	1.85	1.76	-26.4%	-4.9%
average concentration	4.92	3.85	4.85	-1.4%	26.0%
low concentration	5.23	4.57	5.60	7.1%	22.5%

NB: the three territorial areas are defined on the basis of the degree of concentration of the resident population: more than 50,000 inhabitants is “high concentration”; between 5,000 and 50,000 inhabitants is “average concentration”; less than 5,000 inhabitants is “low concentration”.

Prolonged or extended blackouts and, as from 2012, short blackouts, originated at any voltage level of the electricity system and for any reason, **for MV customers**, are also regulated.

In such cases, it is envisaged that the operator pays a fine, calculated on the basis of the number of

customers without a power supply for black outs due to “other causes”, to the Fund for exceptional events established with the electricity sector Equalization Fund. Furthermore, the supplier pays automatic compensation to customers who have suffered a blackout. In conclusion, the regulatory system envisages automatic

<sup>40</sup> Resolution No. 198/11 and subsequent additions.

<sup>41</sup> Once the data has been checked, the Authority will publish it and make it available on its website ([www.autorità.energia.it](http://www.autorità.energia.it))

compensation for medium voltage customers endowed with certification of the adequacy of their plants<sup>42</sup> in the event of long blackouts in the electricity supply greater in number than the standard established.

At the time this document went to press, the final figures were not yet available; however, considering that in the previous regulation cycles only long blackouts were counted and that also the standards established by the AEEG on the maximum number of blackouts admissible have changed, it will not be possible to make any historic comparisons on the basis of the same scope, therefore it has been deemed useful to once again publish the pertinent performance data as from the next edition of the report.

### Quality in the public lighting area

Acea manages the **public lighting service in Rome, functional, artistic and monumental**, in an **area covering around 1,300 km<sup>2</sup>** (equivalent to around 7 times the area of Milan) as per the formalities established in the *Service Agreement*<sup>43</sup> entered into between the company and Rome City Council.

**Acea Distribuzione** carries out activities for the **design, implementation and maintenance of the plants**, according to procedures compliant with Acea SpA's Quality Management System<sup>44</sup> and is also independently certified, as already mentioned, according to the UNI

EN ISO 9001:2008 (Quality), UNI EN ISO 14001:2004 (Environment) and OHSAS 18001:2007 (Safety) standards, demonstrating a high level of attention to the operating procedures.

**Acea Illuminazione Pubblica SpA** also came into operation as from 2011, seeing to, among other aspects<sup>45</sup>, the start of work pertaining to the Light Plan, known as **"High Productivity"**, to be implemented progressively in the Capital. The plan of measures, agreed on with the Municipal Authority<sup>46</sup>, is focused on roads, areas and sites, previously assessed, where the enhancement of the lighting may facilitate the mobility and safety of the citizens. During 2012, Acea SpA's Board of Directors approved the reorganisation of the activities relating to the management of public lighting, envisaging the transfer of the Acea Distribuzione business segment to Acea Illuminazione Pubblica SpA, and identifying the latter as the party appointed to manage the service.

Lighting measures are planned and followed in the various stages of progress by placing the management and technical skills present in-house in synergy, with the indications of Local Public Administration Departments and Agencies responsible for following new town planning schemes and improvement projects for the area and cultural heritage.

**TABLE NO. 34 – PUBLIC LIGHTING IN ROME: THE NUMBERS (2012)**

<b>lighting units (No.)</b>	186,238 (+ 2.3% compared with 2011)
• artistic-monumental lighting units (No.)	• approximately 11,000
<b>street lamps (No.)</b>	211,103 (+2.5% compared with 2011)
<b>MV and LV electricity network (km)</b>	7,619 (+1.5% compared with 2011)

<sup>42</sup> So as to be entitled to the compensation, medium voltage customers must demonstrate that they have installed protection devices at their plants, capable of avoiding that any interruptions caused by faults within their utility plants have repercussions on the network, damaging other customers connected nearby. Furthermore, in order to access the compensation, the customers will have to have arranged for the distribution company to receive a plant adequacy declaration issued by parties who have the specific technical-professional requisites. If the customer does not have the requisites for entitlement to the compensation, the amount of the compensation becomes a fine which the Distributor is obliged to transfer to the electricity sector Equalization Fund.

<sup>43</sup> By means of Resolution of the Municipal Council No. 130 dated 22 December 2010, regarding the Adaptation of the Service Agreement between Rome City Council and Acea SpA, the contractual relationship was renewed until 31 December 2027.

<sup>44</sup> Acea SpA's UNI EN ISO 9001:2008 Certification - this company being the holder of the service agreement for public lighting management - in fact covers the processes relating to the global and integrated management of the functional and artistic public lighting systems.

<sup>45</sup> Besides launching the "High Productivity" plan in Rome, Acea Illuminazione Pubblica SpA - established in 2012 - carried out a number of measures during 2011 - construction of systems and lighting requalification - in Todi and San Vittore del Lazio. The work in San Vittore also continued during 2012.

<sup>46</sup> Resolution No. 252 of the Municipal Council of Rome, session held on 3 August 2010.

Each year, new lighting units are created, activities are carried out for ensuring safety and modernization of the systems and ordinary and extraordinary maintenance is carried out on the lighting systems, with the related inspection, replacement and repair measures (see tables No. 35 and 36).

**During 2012, Acea installed 559 new lighting units using LED sources** (Light-Emitting Diode), confirming the choice of applying this new lighting technology, which shows itself to be particularly advanced in terms of **energy efficiency** thanks to the greater duration with respect to traditional light sources with high lighting efficiency.

The **main public lighting projects and measures** carried out during the year included:

1. **measures on 8,070 lighting units**, including **2,387 new units** (of which **559 LED**) created mainly for the **functional lighting** on transit thoroughfares, inclusive of those within the **area of the Appia Antica Park** (see related box). The measures also involved **several green areas**, such as for example the public Park of the Massimina and the Monte Ciocci Park, **the 4 stations of the new underground lines** - Metro B1 line - **opened during the year, including the**

**adjacent areas and 1 car park** (see related box) and a number of stations of the new underground line (Metro C) being constructed; in conclusion, mention is made of the **restyling work for Piazza San Silvestro**, right in the heart of the city; designed by the architect Paolo Portoghesi (see related box);

2. within the sphere of artistic lighting, the measures for the lighting of the **Ninfeo del Pincio** using LED technology (see related box);
3. the continuation of the plan **for the disposal of the medium voltage (MV) network serving part of the public lighting systems**. Specific analysis has suggested the placement of this network out of service, given the obsolescence of the same, and the related MV/LV transformer stations with powering of the public lighting system directly by local low voltage (LV) supplies, to be implemented via a long-term programme which also continued throughout 2012;
4. the **completion**, as part of the scheduled maintenance and repair measures, **of the five-year plan for checking functional lampposts**, with the consequent replacement of those in a bad state of repair. The new cycle of checks and measures will commence as from 2013.

#### **PUBLIC LIGHTING FOR THE NEW STRETCH OF THE UNDERGROUND (METRO B1)**

Appointed by the company Metro B1, concession holder for the construction of the stretch of the new Piazza Bologna-Conca d'Oro underground, **Acea took steps to draw up the executive projects and create the lighting systems for the external areas** intended for vehicles and pedestrians **pertaining to the new stations and the car parks** serving the same. The customer requested a specific style of decorative elements, so that they would harmoniously blend in with the new urban set-up, and **the use of LED sources** in compliance with the matters laid down by the Municipal Authority for **containing energy consumption**.

Acea took steps to install lighting design products capable of satisfying the aesthetic needs for harmonisation with the context and capable of ensuring levels of lighting necessary for areas featuring considerable complexity. In this connection, equipment using LED technology was used featuring high performances, characterising the stations of Piazza Conca d'Oro, Piazza Palombara Sabina (Viale Libia), Piazza Annibaliano (Sant'Agnese) and the neighbouring areas affected by the Metro B1 construction sites. In particular, in Piazza Palombara Sabina a particular form of lighting was also created for the benches located in the green area, using LED systems, placed under them, which defined the contours and volumes of the same. In total, **171 lighting units** were installed with different wattage and **12 linear systems** for the benches.

## ACEA ILLUMINAZIONE PUBBLICA IN SAN VITTORE DEL LAZIO

Besides implementing the Lighting Plan in the Capital, Acea Illuminazione Pubblica SpA is also active outside Rome. In detail, during 2012 it carried out efficiency measures (-10.5% power used on the systems subject to work), safety measures, those for extension (+38% lighting units more on systems subject to work) and completion of the public lighting in San Vittore del Lazio, the municipality in the province of Frosinone where the Group manages a waste to energy plant. The work carried out favoured the application of LED technology which made it possible to:

- reduce the installed power with respect to the previous plant engineering configuration;
- lower energy consumption with consequent reductions in costs;
- decrease the management costs;
- increase the brightness uniformity with respect to conventional technologies;
- create greater visual comfort in the thoroughfares and pedestrian areas.

These measures made it possible to achieve a **saving in CO<sub>2</sub> emissions** of around **9.3 tons of CO<sub>2</sub> per year**.

**TABLE NO. 35 – MAIN PUBLIC LIGHTING MEASURES ON LIGHTING UNITS (2012)**

type of measures	(No. of lighting units)
creation of new lighting units (including artistic)	2,387 lighting units (of which 559 LED), equivalent to the illumination of approximately 55 km of road
modernisation (including artistic)	508 lighting units
transformation of the 8.4 kV MV circuits to LV standard	176 transformer stations
safety measures	5,175 lighting units

## LIGHT ALONG THE APPIA ANTICA PARK

The roads affected by the public lighting measures during 2012 also included Via Appia Pignatelli, Via Erode Attico and Via di Tor Carbone, all **falling within the perimeter of the Appia Antica Park**, an area **under the protection of the Ministry for Cultural and Environmental Heritage** of exceptional historic interest due to the presence of Ancient Roman testimony and monuments such as the Tomb of Cecilia Metella, the Circo di Massenzio, the Villa dei Quintili and the burial sites dating back to the republican era onwards. Upon the express request of the heads of the Municipal Office, Acea was involved in the search for lighting elements which blended in with the landscape and the peculiarities of the monumental area. Accurate market research made it possible to identify **wooden lampposts**, a material used largely in northern Europe. The merit of the finishing and the quality of the material opted for, **approved by the Municipal Office** and subsequently installed, gave the lighting system a value, not only technical, but also aesthetic and **in keeping with the natural environment in which it has been installed**. **130 compact plywood posts** were installed, with aluminium elements for the lighting body.

## THE RESTYLING OF PIAZZA SAN SILVESTRO IN THE HEART OF ROME

The Historic City Office of Rome City Council requested Acea to draw up **the lighting project for Piazza San Silvestro**, located in the heart of the historic city centre, following the **indications of the architect Paolo Portoghesi**, who had been requested by the City Council to see to the complete **restyling** of the square.

The lighting design project concerned both Piazza San Silvestro and the neighbouring Piazza San Claudio, doorway to the area recovered for pedestrianisation. Overall, **30 lampposts of two different types** were used, dictated by the needs of the various areas to be lighted, involving **a total of 31 lighting bodies** and **4,800 W of general power installed**. In the most "central" area of the square, **reserved for pedestrian use** and bordered by benches which define **an ellipse-shaped space**, the aim was to obtain **a very soft level of lighting**, so as to **render the urban space more like a family environment** and this was achieved by using lampposts of a contained height (4 metres above ground), essential in design, with a metallic iodide lighting source and lighting temperature of 2,800 K, reducing the power of the lamps to 150 W. With the insertion of 4 equally-spaced lampposts, positioned within the ellipse, the use of the base for cultural events is possible. The architect Paolo Portoghesi also wished to highlight the square grid structures of the Piazza and the lampposts, placed where the lines meets, contributed to emphasising the same.

In another stretch which defines **a driveway**, and which therefore must have greater lighting, higher lampposts have been used (8 metres) and long-life high pressure sodium light sources with a colour temperature of 1,800 K. A similar solution was used in Piazza San Claudio through which public buses and private vehicles pass and which sees considerable pedestrian flows. In conclusion, the pavements were intentionally kept more discrete so as to avoid dispersions of the lighting flux on the vertical walls, which will feature a specific architectural lighting system. The Piazza also benefited from the lighting of the **facade of San Silvestro's Church** involving two specific posts and two dedicated projector lights with a colour temperature of 2,800 K (white light), along with the **bell tower and the facade of San Claudio's Church** featuring 2 devices placed on existing posts and another 2 within the bell room of the tower.

**TABLE NO. 36 – SCHEDULED AND EXTRAORDINARY PUBLIC LIGHTING REPAIRS AND MAINTENANCE (2012)**

<b>type of measures</b>	<b>(No.)</b>
checking of corroded lampposts	<b>15,497 lampposts checked</b> (completing the five-year checking cycle)
replacement of bulbs before lighting flow is compromised	<b>65,565 bulbs replaced</b>
reinstallation of corroded lampposts or those knocked down due to accidents	<b>2,140 lampposts reinstalled</b>

The **quality parameters for the public lighting service** concerning the **fault repair timescales**, are monitored and calculated as from the arrival of the report<sup>47</sup>.

The **service standards** are **expressed by a permitted average repair time (TMRA)** within which the repair measures must be carried out, and a maximum timescale (TMAX), which if exceeded triggers off a system of fines<sup>48</sup>.

The **average repair times (TMR)** for the functioning of the systems **deployed by Acea in 2012** for the various types of fault **were clearly shorter than the TMRA** and **in line with the previous year's performances**, indicating a trend towards the consolidation of the satisfactory performances achieved, downstream from the sharp drop in repair times of the services obtained in previous years (see table No. 37 and chart No. 16).

<sup>47</sup> The reports considered for the calculation of the service levels do not include those attributable to damage caused by third parties and the reports, subsequent to the first, relating to faults on the same stretch of network.

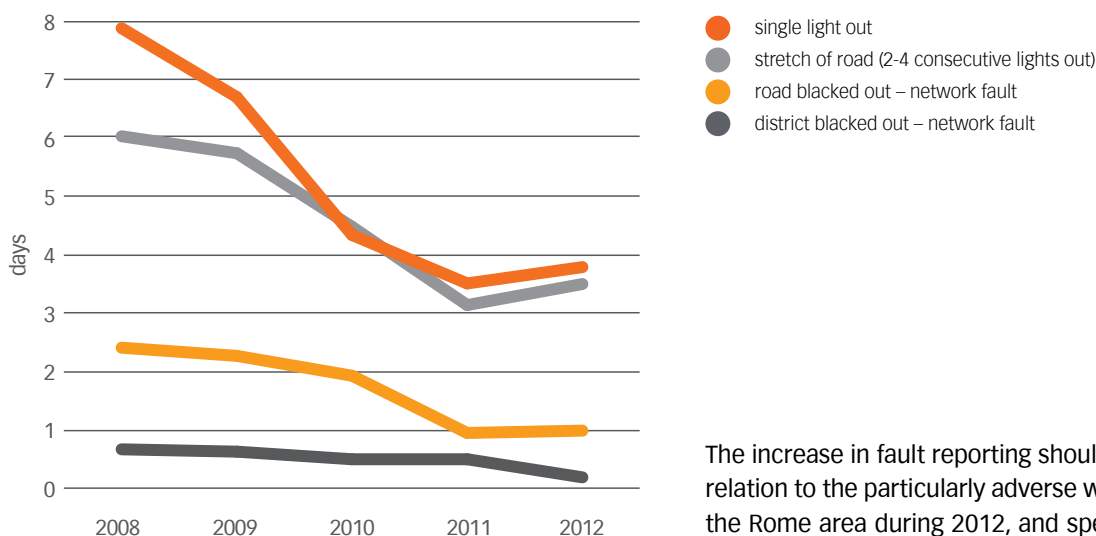
<sup>48</sup> The calculation of the fines takes place in accordance with a complex mechanism: each repair carried out beyond the TMAX is penalized. Those carried out within timescales shorter than the TMAX but longer than the TMRA are penalized only if the TMR > TMRA. In 2012, total reports subject to fine calculation amounted to 13,243 (+7.4% when compared with the 12,328 reports in 2011), of which 72 (equating to 0.5%) concluded after the maximum deadline; the total of the fines for 2012 came to around Euro 26,000 (also see the section Institutions and the Company, box dealing with Procedures, bonuses and fines).

**TABLE NO. 37 – PUBLIC LIGHTING FAULT REPAIRS: ACEA FINES, STANDARDS AND PERFORMANCES (2011-2012)**

type of fault	fine per day of delay (Euro)	service standards as per Agreement (*)			Acea services	
		TMRA (permitted average repair time) (working days)	TMAX (maximum repair time) (working days)		TMR (average repair time) (working days)	
				2011	2012	
blacked out district – MV network fault	70	1 day	1 day	< 1 day	< 1 day	
blacked out street – MV or BV network fault	50	5 days	8 days	0.95 days	0.99 days	
blacked out stretch (2-4 consecutive streetlamps out)	50	10 days	15 days	3.14 days	3.50 days	
street lamps not working: individual light, strut, post	25	15 days	20 days	3.51 days	3.79 days	

(\*) In continuity with the previous years, the figures are monitored with reference to that established in Enclosure D/2 to the 2005-2015 Service Agreement Rome City Council – Acea SpA.

**CHART NO. 16 - TREND IN ACEA PERFORMANCE FOR REPAIRING PUBLIC LIGHTING FAULTS (2008-2012)**



The fault is detected by internal control systems (remote management, monitoring teams) and reported by citizens and Rome City Council, by means of the various contact channels available (call centre, web, fax or letter)<sup>49</sup>. **Fault reports** registered in 2012 **amounted to 19,708<sup>50</sup>, up by around 6%** with respect to the 18,612 reported in the previous year. **Acea took action in 96.8% of the cases**, with 19,081 “reports covered” as of 31 December 2012, while the remainder were completed in the first few months of 2013.

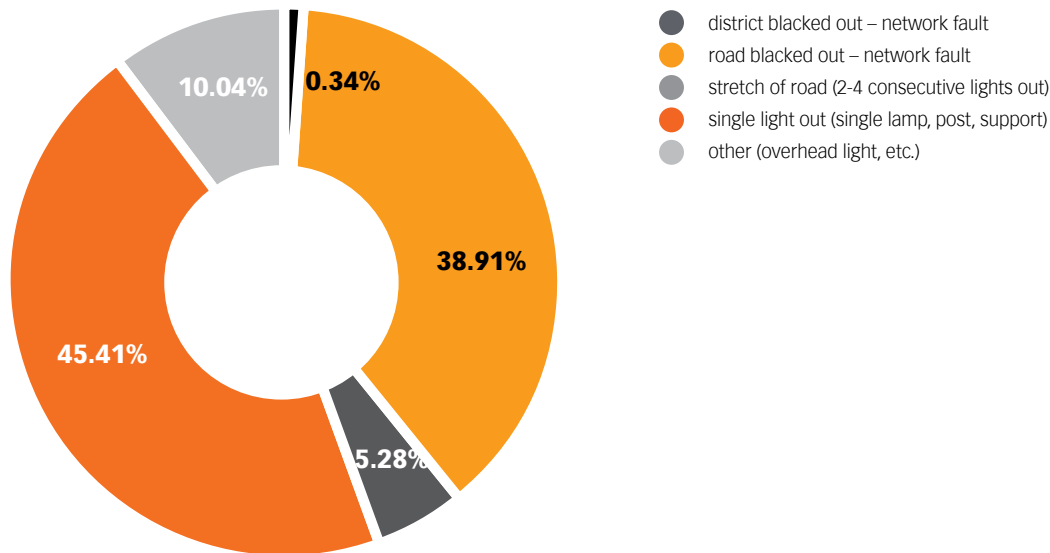
The increase in fault reporting should partly be placed in relation to the particularly adverse weather conditions in the Rome area during 2012, and specifically the general increase in rain and the exceptional snowfall in February, phenomena which influenced the origin of the faults to a considerable extent.

The **distribution percentage** of the reports **by type of fault**, illustrated in Chart No. 17, discloses the greater weight of the cases of individual lighting units out, a fault with the lowest impact on the quality of the service, even if a high percentage of cases of “blacked out street” are revealed in relation to a network fault; the percentage of cases of a blacked out district due to network fault is almost irrelevant.

<sup>49</sup> See the section entitled Customer Care for details concerning the performances of call centres and for written complaints.

<sup>50</sup> The figure excludes the requests and repeated reports on the same fault.

**CHART NO. 17 - TYPES OF PUBLIC LIGHTING FAULT OUT OF TOTAL REPORTS RECEIVED (2012)**



Acea boasts consolidated experience in the **monumental artistic lighting sector**, which requires particular specialisation. **Around 11,000 lighting units** are dedicated to the enhancement of the **wealth of art and architecture present in the capital**, benefiting visitors and citizens alike. Acea’s distinctive skills in the sector are made available also for any measures requested by “private parties” (such as ecclesiastical bodies, hoteliers and third parties in general).

During 2012, the team dedicated to artistic lighting not only carried out maintenance activities but also accomplished a number of new projects (see table No. 38). The measures of greatest significance include the **modernisation of the lighting systems of the fountain in Piazza del Quirinale** using **LED technology for 49 lighting units**, and the **creation of the Ninfeo del Pincio system** (see related box).

**TABLE NO. 38 – THE MAIN ARTISTIC MONUMENTAL LIGHTING MEASURES IN 2012**

<b>system modernisation</b>	<p>system modernisation concerned a total of <b>422 lighting units</b>. These measures included: the lighting of the church of S. Giovanni in Porta Latina, the Monument to the Fallen in Nassiria, Ponte Sisto, the external lighting by projection of the Colosseum, Porta Pinciana, the Passetto di Castel S. Angelo, Piazza Trilussa and Piazza del Quirinale.</p> <p>Furthermore, the lighting systems of a number of parks were modernised including those of Via Carlo Felice, Parco Bergamin and Parco di Via Lemonia.</p> <p>LED technology was used to light up the Quirinale fountain in the square of the same name, using 49 lighting units.</p>
<b>creation of new lighting units</b>	<p><b>4 projectors</b> were installed in total for the external facade of the Ninfeo del Pincio. In addition to <b>22 LED devices</b> for the lighting of the fountain and 3 for the lighting of the bases of said monument.</p>
<b>ordinary and extraordinary maintenance</b>	<p>the maintenance of the artistic and monumental systems envisaged <b>inspections on around 7,760 total lighting units</b>. In detail, 1,280 lighting units for all the illuminated monuments which the Municipal Superintendence is responsible for, the Coliseum and Caracalla which are under national responsibility; 2,580 lighting units in historic Villas and parks; 1,460 lighting units for monumental fountains, 770 lighting units for Basilicas and Churches and 1670 lighting units for the bridges and quays on the River Tiber.</p>



## LED TECHNOLOGY FOR THE NINFEO DEL PINCIO AND THE FOUNTAIN

In June 2012, restoration work was completed on the **Ninfeo del Pincio**, the three-arch structure and the fountain located under the Pincio terrace - one of the most popular view points in Rome for tourists and Romans - which had been seriously vandalised in 2004.

Upon the request of the Historic City Office of Rome City Council, **Acea created new lighting for the monument**, lighting up **both the external facades**, by means of using 4 projectors featuring 70 W bulbs and a colour temperature of 2,800 K, and the fountain, using underwater equipment equipped with LED technology bulbs, of the same time type used, again in 2012, for the modernisation of the system for the fountain in Piazza del Quirinale.

The **lighting design project** was created with the aim of **balancing the levels of lighting of the external facades with the vertical surface areas of the internal environment**, in which the fountain is placed which, as is known, is visible from the outside. This dictated the choice of the wattage to be installed and the different colour temperature: 2,800 K for the devices used for the external facades and 4,000 K for the underwater lamps used for the fountain. This choice, made with the Executives of the Historic City Office and the Municipal Office, made it possible to obtain a new lighting system, thanks to which it is today possible to appreciate the restoration of the architectonic structure which in terms of history and location plays an important role in the panorama of the entire historic-artistic heritage of the city.

The LED equipment, after a pilot installation carried out in the fountain of Piazza della Rotonda (Pantheon) and monitored for around one year, has come onto stream as an Acea standard for fountains. In addition to an improved lighting design performance, it also makes a reduction in the nominal wattage used possible. In the case in question, the wattage was reduced from 2,200 W, with 24 underwater incandescent bulbs, to 500 W for an equivalent number of LED bulbs. Furthermore, the three basins on the lower floor of the fountain were lit up, again using LED technology. The maintenance costs are also significantly lower since frequent changing of the bulbs is no longer necessary until the end of the life span of the system which can be assessed as between 6 and 8 years.

### Quality in the water sector

Acea is operative in the water sector by means of investee companies, in various Optimum Areas of Operations (ATOs), in the regions of Lazio, Tuscany, Campania and Umbria.

Further on in this section, the management activities are described for the integrated water service (SII) carried out by **Acea Ato 2**, wholly-owned by Acea, **in Optimum Area of Operations 2 – Central Lazio** (Rome and another 111 municipalities in Lazio, with an overall inhabitant base of around 3.9 million), **the traditional area of Group operations**<sup>51</sup>.

The main information<sup>52</sup> – economic, social and environmental - on the **other Group companies** active in Italy in the water sector is supplemented with regard to the economic data, as per the consolidation criteria, in the section dedicated to *Human Resources*, in the section which illustrates the *Environmental issues* and in the *Environmental accounts*, while water activities carried out by the Group in Latin America are illustrated in the section *Activities abroad*.

The management of the integrated water service (SII) follows the entire drinking and waste water cycle: from collection of the natural resource from the springs to its return to the environment; it is regulated via a **Management Agreement** between Acea Ato 2 and the ATO Authority, which, in the **Integrated Water Service Charter**<sup>53</sup>, also envisages the definition of general and specific **quality standards**. Dealings with customers are also disciplined by the **Users' Regulations**, attached to the Agreement, which establish the technical, contractual and economic conditions under which the service operator must provide services and the procedures for settling disputes. **As from 2012, the liability to regulate and control the water services was entrusted to a sole national authority - the AEEG** - the same which regulates the energy service. During the year, the authority launched the activities concerning the regulation, acquiring the necessary data and disclosing the first consultation papers, and

51 Acea was appointed to manage the aqueduct service in Rome back in 1937, the treatment system since 1985 and also the entire sewerage system since 2002, as from 1 January 2003. The Rome and Fiumicino network is therefore defined as the traditional network and the service level is more or less optimum in the area.

52 It should be recalled that certain companies operating in the water area invested in by Acea, and in particular the companies operating in the Tuscany region, publish their own sustainability report, to which reference is made.

53 The Acea Ato 2 Integrated Water Service Charter, in force since 2003, applies to the municipality of Rome and progressively in the municipalities acquired under management in ATO 2 – Central Lazio. The full version of the Service Charter is available on the website [www.aceaat2.it](http://www.aceaat2.it).

will progressively issue the regulatory acts which will, amongst other aspects, intervene in the establishment of the standard service quality parameters.

The **network and plant planning, construction, maintenance and restructuring** activities for the management of the integrated water service carried out by Acea Ato 2 fall within the sphere of certification of the Acea SpA Quality Management System. Furthermore, as from 2011 Acea Ato 2 has an independent **Quality Management System according to the UNI EN ISO 9001:2008 standard** for the management of the integrated water service in the area of ATO 2 - Central Lazio, and operates with a view to on-going improvement. The first audit of the management system was carried out in December 2011 and had a positive outcome. The quality parameters concerning various aspects of the service provided are kept under constant control and periodically communicated to the Technical Operational Office of the Area Authority. During 2012, the technical-operating data was also communicated to the AEEG.

The municipalities falling within the related ATO are progressively acquired for management purposes; Acea Ato2, before acquiring the management thereof, carries out, in agreement with the local authorities, an accurate **reconnaissance of the state of the infrastructures** (networks and plants) and in the presence of any situations of non-compliance must await the execution, by the municipal authorities concerned, of the work necessary for making them compliant.

No new management services were acquired in 2012, therefore as of **31 December 2012**, out of the 112 municipalities falling within ATO 2 - Central Lazio, the **integrated water service** - aqueduct, sewers and treatment - was seen to in **73 municipalities** and in

**another 21 municipalities** the SII was managed partially. The **population served came to around 3.7 million individuals** (including resident, floating populations and production activities), equal to roughly 95% of the total. These are joined by the **aqueduct systems** of the Consortia Simbrivio, former Cassa per il Mezzogiorno, Doganella, Nemi-Genzano, C.E.P. (Consorzio Ecologico Prenestino) and Peschiera, while for the acquisition of the sewerage networks and raisers still managed by the Co.R.Ec.Alt Consortium, it will be necessary to wait for it to complete the adaptation work on the plants and work for the integration of the networks indispensable for bringing the same in line with legislation. During 2012, preliminary work was continued for the acquisition of a portion of the service (drinking water) in another 6 municipalities.

In 2012, Acea Ato 2 managed in total **1,340 km of drinking water transportation network, 9,558 km of drinking water distribution network** (to which the user branch offs must be added) and **roughly 6,100 km of sewers**, not considering the connections, linked to an extremely complex system of constructions and plants which make the operating of the aqueduct, treatment and sewerage service possible.

The Company, besides following the growth of new urban developments and carrying out complex measures in the event of specific criticalities - in this connection, for example, mention should be made of the activities carried out in 2012 **in collaboration with the Civil Defence Agency within the sphere of the snow emergency** (see related box) -, each year performs modernisation or enhancement work on the plants, along with completion, extension or renovation work on pipes and networks.

## ACEA ATO 2 TAKES ACTION FOR THE SNOWFALL EMERGENCY

During the exceptional snowfalls which occurred in February 2012, in line with the 2011-2012 Winter ice and snow Emergency Plan, adopted by Acea Ato 2 throughout the area managed, the company intervened, in accordance with the Civil Defence Agency, so as to contain the difficulties experienced by the users and for the restarting up of the installations which had been subject to blackouts.

In fact, critical situations arose mainly due to the electricity supply blackouts at local wells and raising plants, also lasting several days and in particular regarding the vast areas supplied by the Simbrivio and Doganella aqueducts.

Specialised engineers and **teams operating throughout the area**, as well as contractors, **worked without interruption in order to ensure or resume the continuity of the service** and, where necessary, a supply service using tankers was activated. Upon the request of Rome City Council, continual supervision by an Acea Ato 2 representative was ensured care of the operations room of the Municipal Civil Defence Agency, also active around the clock.

Numerous generators were brought onto stream replacing the power supply which made it possible to **contain the down-times of the raising plants** or, in some cases, for those already installed and kept constantly under remote control, to **avoid any irksome out-of-service**. As a point of fact, the generator serving the Peschiera springs came onto stream, with a capacity raised of roughly 2,000 l/s, along with that of the Fiumetto plant, with a capacity raised of around 700 l/s, therefore guaranteeing perfect **water supply continuity for the entire city of Rome**.

Other action undertaken included the preventive re-stocking of chemical products and fuels. With regard to the communications channels, on a preventive basis a number of satellite telephone services were activated to be used by the strategic operations units for the emergency.

Via the **Acea Ato 2 Environmental Operations Room** active around the clock, constant contact was maintained with the Authorities and **communications relating to the emerging crisis were sent in real time. The population** affected by the water supply anomalies consequent to the electricity blackouts **were warned by means of the issue of press releases** picked up by the media and the **operation of the free-phone number** was guaranteed, again around the clock, for reporting water faults, **enhancing the supervision** with automatic messages in reply updated with regard to the information requests.



Analysis activities continued in 2012 on the structures of the water networks along with **loss detection and recovery** activities, carried out availing of the collaboration of LaboratoRI, especially in the municipalities in the province of Rome where the infrastructures are older. During 2012, the main measures were carried out in the municipal areas of Riano, Subiaco, Monterotondo, Fiano Romano, Cerveteri, Formello, Mentana and Velletri (also see *Environmental issues, Water*). The digitalisation of the sanitary water networks in ATO 2 also continued, with the input of data **in the GIS - Geographic Information System**<sup>54</sup>: as at 31 December 2012, **10,764 km of water mains** and **5,567 km of sewers** were digitalised.

### The aqueduct service

For the management and enhancement of the **aqueduct system** - water centres, water pipelines, networks, etc. - the **main measures carried out in 2012** concerned the completion of the work on the **Arcinazzo reservoir** and the **Pertuso raising plant** and the related bringing onto stream so as to deal with the summer emergency (see box on the structural measures for the New Simbrivio Aqueduct). Furthermore, in order to improve the drinking water supply for the Municipality of Fonte Nuova, the **Monte Palombino raiser** was started up and raises around 100 l/s from the Peschiera Sinistro aqueduct to the Monte Palombino reservoir.

### STRUCTURAL MEASURES FOR THE NEW SIMBRIVIO AQUEDUCT

The **Arcinazzo drinking water reservoir** is located at the start of the New Simbrivio Castelli Aqueduct (N.A.S.C. Aqueduct) at Altipiani di Arcinazzo (Municipality of Trevi nel Lazio). It has a **storage capacity of roughly 11,000 cubic metres** divided into two basins, with a maximum water level height of 867.50 m above sea level and height from the bottom of 862 m above sea level (effective water height of 5.50 m). **This reservoir guarantees the functioning continuity of the aqueduct system also during temporary out-of-service** of the raising of the Ceraso installation and replaces, at a higher level (around + 20 m), the existing Water Tunnel with regard to the water disconnection function between the arrival of the water pipes which lead into it, originating from the Vallepietra springs and the Ceraso raising plant, and the start from Altipiani di Arcinazzo of the DN 800 transportation ducts of the N.A.S.C.

The **new Pertuso raising plant**, also located at Altipiani di Arcinazzo has been constructed in the area already pertaining to the Ceraso raising plant, for the purpose of **integrating the available resources for the inhabited areas supplied by the New Simbrivio Aqueduct**, which has around 360 km of pipelines and supplies 54 municipalities and 3 consortiums. The work, which permits the relaunch of the water from the Pertuso spring, also involved the creation of the connecting pipeline (around 1,230 metres long) between the Ceraso Plant and the Arcinazzo reservoir.

Thanks to the afore-mentioned measures, it is now possible to transport greater capacities in the aqueduct and ensure the running continuity.

Activities continued during the year on the infrastructures (improvements, construction of new connecting pipes and transportation ducts, excavation of wells, etc.) for the purpose of **dealing more effectively with the water emergency situations which occur during the Summer months** in a number of municipalities

in the south of Rome served by the Consortium for the Simbrivio Aqueduct. During 2012, steps were taken to carry out a number of measures and specific hydraulic works which made it possible to limit inconveniences and supply shifts to a minimum.

<sup>54</sup> A GIS is an IT system used to acquire, register, analyze, view and return information from geographic data, placing various data in relation, according to a common geographic reference.

**WATER SHORTAGE DURING THE SUMMER DROUGHT: ACEA ATO 2 MEASURES**

As from June, with the rise in the temperatures, higher water consumption was registered with a simultaneous decrease in the water source at the local supply sources. Consequently, in certain areas of the Rome province, a water shortage situation emerged with temporary drops in pressure and the lack of water.

Acea Ato 2 intervened promptly so as to ensure the drinking water service and limit the inconveniences for the population. In detail, water shifts were introduced in the municipalities of Lariano, Genzano, Velletri, Cerveteri, informing the citizens also by means of news divulged via the company websites. A water tanker service was also activated at the same time in numerous municipalities of ATO 2. The population was notified also via the press and invited to adopt water saving measures thereby avoiding waste.

Among the main structural events achieved in 2012, mention is made of the bringing onto stream for the Summer emergency of the Arcinazzo reservoir and the new Pertuso booster, which made it possible to transport greater capacities in the aqueduct leading to greater flexibility and safety of the supply system.

In conclusion, activities continued for **the installation of new meters or the replacement of meters which do not function adequately** which in 2012 involved **more than 70,000 measures**.

**extraordinary maintenance measures** carried out during the year on the transportation networks, systems and equipment functional for the supply of the drinking water service, in Rome and in the other municipalities under management, and the **checks carried out on the quality of the drinking water distributed**.

Table No. 39 shows the main **ordinary and**

**TABLE NO. 39 – MAIN MEASURES ON THE ACQUEDUCT SYSTEM AND DRINKING WATER CHECKS IN ATO 2 – CENTRAL LAZIO (Rome and other municipalities under management (2012))**

<b>TYPE OF MEASURES</b>	<b>(NO.)</b>
<b>ordinary and extraordinary hydraulic maintenance</b> on the transportation and feeder network (constructions, water centres, tunnels)	<b>868 measures</b> (including repairs and maintenance, of which <b>218 with recovery of the water resource</b> )
<b>ordinary maintenance of water network</b> (measures with <b>excavation work</b> on pipes, off-takes, carriers, etc.)	<b>17,335 measures</b> (4,697 of which on the Rome network)
<b>user maintenance</b> (measures <b>without excavation</b> for users)	<b>69,644 measures</b> (36,798 of which for users in Rome)
<b>meter installation</b> (new and replacements)	<b>70,149 measures</b> (10,580 new and 59,569 replacements), 50,618 of which in Rome (5,744 new and 44,874 replacements)
<b>network expansion</b>	<b>8.4 km</b> of water network expansion (of which around 2.4 km in Rome)
<b>network improvement</b>	<b>466 improvement measures on the network</b> , for a total of 2.6 km of improved network
<b>drinking water quality</b> checks	<b>roughly 8,846 samples</b> taken and <b>328,202 analytical checks</b> carried out on drinking water

A **quality parameter of the water service** is the **continuity of the water supply** and this is calculated on the basis of the **number and duration of the water stoppages**. The parameter is constantly monitored and periodically communicated to the Area Authority: in

2012, **1,094 stoppages** were necessary, 920 of which urgent (for pipe bursts) and 174 scheduled; **around 5% of the stoppages had a duration of more than 24 hours**, a figure in line with the previous two-year period (see table No. 40).

**TABLE NO. 40 – NUMBER, TYPE AND DURATION OF WATER SUPPLY STOPPAGES (2010-2012)**

	2010	2011	2012
urgent stoppages (No.)	920	837	920
scheduled stoppages (No.)	182	173	174
total stoppages (No.)	1,102	1,010	1,094
stoppages lasting > 24h (No.)	49	54	56

The **quality of the water** distributed for drinking use as well as the water reintroduced into the natural environment are subject to accurate **analytical control and monitoring activities**, carried out also with the support of LaboratoRI (see also *Environmental issues, Water*, and the *Environmental accounts*).

The **checks on the drinking water** distributed are carried out on samples taken from springs and wells, transportation plants, reservoirs and along the distribution networks. The **frequency of the controls** and the **withdrawal points**, both greater than envisaged by current legislation (Italian Legislative Decree No. 31/2001), **are established taking into consideration a number of variables**, such as the volume of water distributed, the population served, the state of the networks and infrastructures, the singular characteristics of the local sources. For example, in the municipalities supplied with water which presents intrinsic quality problems, many more checks are carried out and in the presence of specific problems extraordinary analysis campaigns are carried out. During 2012, a **total of 8,846 samples were taken** in ATO 2 – Central Lazio municipalities under management, and **328,202 analytical checks** were carried out on drinking water, by both LaboratoRI and Acea Ato 2 directly.

The **spring water** withdrawn for supplying the **area of Rome and Fiumicino** (Acea's "traditional network") already reveals **excellent quality levels**, while in the **Castelli Romani** area the **volcanic nature of the terrain**, causing the **presence** in the water tables of **mineral elements** such as fluorine, arsenic, vanadium **in amounts higher than envisaged by the law**, has therefore made it indispensable to supply certain municipalities on an exceptional basis until the **activities undertaken by Acea Ato 2** for overcoming these problems are completed. Accordingly, over the last few years a number of local supply sources critical in terms of quality have been abandoned, mainly wells, involving an

overall capacity of 270 l/s, and replaced by sources which have better quality characteristics. Furthermore, more than **30 drinking water plants** have been constructed or are being completed for a total capacity of more than 450 l/s.

In 2012, a number of measures were also completed for the enhancement of the Simbrivio aqueduct, such as the bringing onto stream of the **Ceraso raising plant** and, as already mentioned, the construction of the new Arcinazzo reservoir, which permitted greater flexibility and reliability of the service, and the **offtake from the Marcio aqueduct was implemented** for the **municipality of Marino** (Via Goffredo Mameli raising plant). In conclusion, activities continued preparatory for the construction of the offtake from the Mola Cavona – Santa Palomba transportation duct **for the municipality of Ciampino**, the doubling of the **Preziosa reservoir**, final offtake of the Marcio aqueduct for the **municipality of Frascati**, as well as the enhancement of the **offtake** from the Peschiera – Capore aqueduct system for the **municipality of S. Marinella**.

The measures carried out so far have made it possible to **return under the limits envisaged by Italian Legislative Decree No. 31/01 for the supply of the majority of the population initially affected by the derogations, which passed from just over 150,000 inhabitants to roughly 5,000 inhabitants at the end of December 2012** - a limited portion of the population of the municipalities of **Lanuvio** and **Velletri** - for whom an alternative supply was set up using mobile reservoirs and drinking fountains equipped with in situ treatments. To-date, the measures envisaged by the recovery plans have been concluded, with the exception of two still underway due to the protraction of the timescales for acquiring the legal authorisations for the execution of the work.

The **good quality of the drinking water distributed** is guaranteed by both the constant analysis and

55 In general, such analysis is carried out by consumer associations such as Altroconsumo and Cittadinanzattiva and the results can be found on their websites.

monitoring activities carried out by Acea and the independent surveys carried out by third parties<sup>55</sup>, however despite this consumers do not always show they are aware, therefore Acea continues to monitor the habits and undertake action to raise awareness (also see the section *Communication, events and solidarity*). The customer satisfaction surveys, carried out each year involving two six-monthly sessions, envisage specific questions on the **perception of the water quality** (both in Rome and other municipalities of ATO 2).

With regard to the smell, taste and clarity of the distributed water, the overall opinion was positive (7.3 out of 10); those interviewed were also asked if they usually drank tap water and, if not, why they considered it unsuitable for drinking purposes. During 2012, as the average of the two six-monthly surveys, it emerged that **57.5%** of those interviewed in the Capital **declared that they regularly drank the water which comes from the tap in their home, an improvement** with respect to the 53% on average revealed last year, while in the **provinces**, this percentage drops to **30.5%** (34% in 2011). In Rome, the portion of those interviewed who declare that **they never drink tap water** also dropped: the average figure came to **23.5%** compared with 26% in 2011, while the equivalent figure in the provinces rose to 52.5% (compared with 48% in 2011); the **lack of confidence in hygiene aspects** prevailed among the reasons given (30% in Rome and a good 57% in the provinces).

The city of **Rome features the presence of around 2,550 drinking water fountains** – in cast iron (the so-called “nasoni” or big noses) and in tufa (the “fontanelle della lupa” or she-wolf drinking fountains) – **which provide drinking water** thanks to the running and maintenance activities carried out by Acea Ato 2. The company also looks after **228 of the artistic and monumental fountains** which enrich the Capital and is responsible for **additional water services**, around **2,000 fire hydrants and sprinkler networks**; the sprinkler network is mainly located in the city centre and the “Trieste” and “Prati” neighbourhoods and supplies the most important artistic fountains in the city.

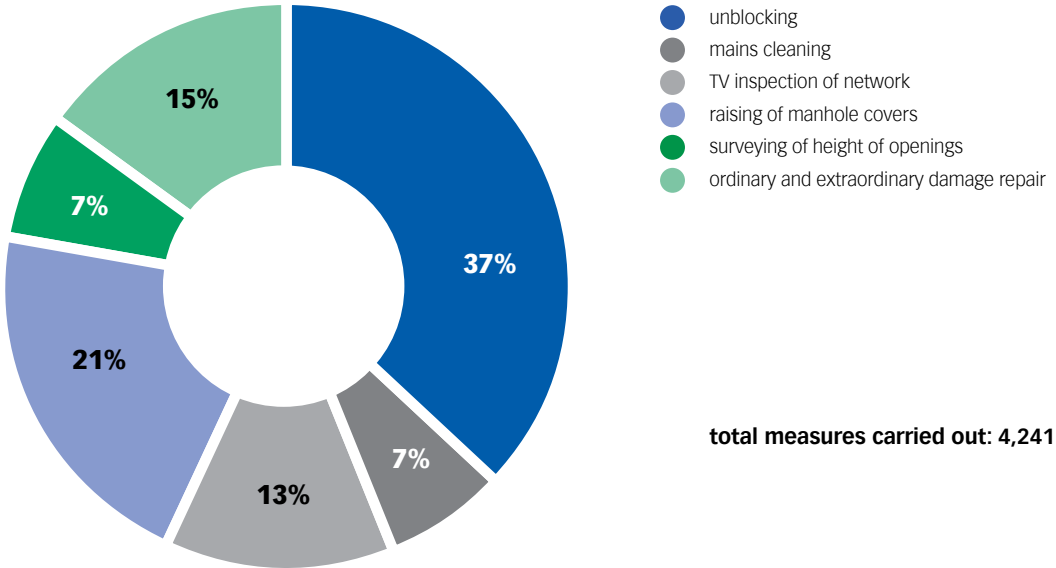
### **The treatment and sewage service**

The integrated water service includes the collection of waste water and its treatment before being reintroduced into the environment. The treatment system **in ATO 2 – Central Lazio is organised in “catchment areas”**, territorial units on a hydrographic basis, which comprise the **treatment plants**, the **sewage networks** pertaining to the same and the associated **raising plants**. The infrastructures managed as of 31 December 2012 included **513 sewage raising plants (174** of which in the Rome municipal area), **175 treatment plants (35** of which in the Rome municipal area) and **6,126 km of sewage networks** (around **4,156 km** of which managed for Rome), without taking into account the number of sewer connections.

Overall **measures** carried out during 2012 in Rome and the other municipalities under the management of ATO 2, **along the networks** serving the treatment and sewage system, comprising **investigations, inspections, blockage removals and repairs** numbered **5,915**, involving an average of **around 493 measures a month** (see chart No. 18 for the type of measures carried out on the sewage networks and table No. 41 for the main maintenance measures on the treatment and sewerage system).

Often measures on the network are not limited to the repair of the damage identified but extend to accurate reconnaissance work on a larger section, so as to **plan any redevelopment activities** for the purpose of improving the operating conditions. Besides the management and maintenance activities, work has been continued to **expand, integrate and enhance the sewage network**, in particular in the mostly recently acquired municipalities in ATO 2.

**CHART NO. 18 – TYPE OF MEASURES CARRIED OUT ON THE SEWAGE NETWORKS IN ATO 2 – CENTRAL LAZIO (Rome and municipalities managed) (2012)**



NB: the figures do not take into account the so-called "void" measures, linked to reports relating to the rainwater drainage system via "drain traps" or "hoppers", or attributable to parts of privately-owned plants which are not the responsibility of Acea Ato 2.

**TABLE NO. 41 – MAIN MEASURES ON THE TREATMENT AND SEWERAGE SYSTEM AND WASTE WATER CHECKS IN ATO 2 – CENTRAL LAZIO (Rome and municipalities under management) (2012)**

TYPE OF MEASURES	
investigations, removal of blockages, cleaning, inspections, raising of manholes, inspection of level of water drain openings and damage repairs	<b>5,915 measures on the sewage networks</b>
inspections of the Rome sewers and measures on associated constructions (floodways, openings, etc.)	<b>59 km of sewers inspected, 1,669 measures on sewers and constructions (Rome, right and left Tiber)</b>
ordinary electromechanical maintenance on the raising plants	<b>8,199 measures on the raising plants</b>
electromechanical maintenance (improvement, ordinary, preventive, etc.) on treatment plants	<b>6,102 measures on the treatment plants</b>
waste water quality control	<b>6,973 samples</b> withdrawn and a total of <b>122,231 analytical checks</b> carried out on the <b>waste water</b>

The **waste water disposal system** is subject to **constant control** and the parameters which indicate the quality of the water coming into and flowing out of the treatment plants and the impact on the receiving water bodies, the rivers Tiber and Aniene, are monitored. Thanks to the adoption of cutting-edge technology, **Acea Ato2's Environmental Operations Centre, constantly monitors the data** detected by **remote control, on the**

**transit of the waste water in the networks**, as well as **the hydrometric and pluviometric figures**, shared with the Rome Hydrographic and Marigraphic Office; and **the data on the quality of the water in the rivers Tiber and Aniene, thereby producing a daily report.** The **analytical checks carried out on the waste water**, performed both by Acea Ato 2 and the company LaboratoRI, came to **more than 122,000 in 2012.**



## The tariffs

### The electricity tariff

The Italian electricity sales market is divided up into two separate segments: the “**free market**”, in which the consumer directly handles the supply relationship with the chosen operator, and the “**protected service**”, where the customer receives the service **under the contractual and tariff conditions<sup>56</sup> established by the Gas and Electricity Authority (AEEG)**, the national regulation body for the sector (see the related box under *Electricity and gas service customers*).

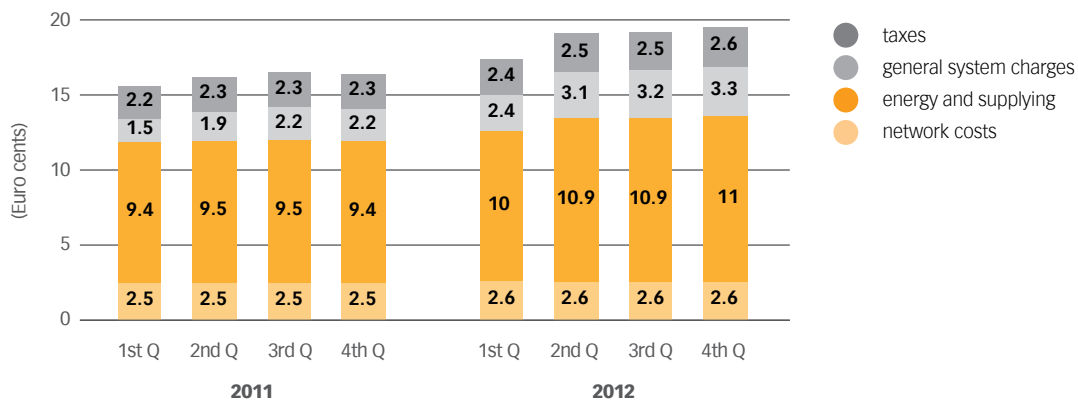
The **costs** shown on the energy bill **cover three expense items**: the sales service, that of the network and the taxes due.

The **sales service**, which represents the most significant economic item, besides being that subject to free competition in the free market segment<sup>57</sup>, includes the prices which the supplier incurs for the purchase, marketing and dispatch of energy for the customer. The **network service**, whose tariff is uniformly established by the AEEG, regards energy transport and

distribution activities as far as the meter and the so-called **general system charges** (including incentives for renewable sources, promotion of energy efficiency, system research and electric bonus). In conclusion, the indirect **taxes**, applied on the quantity of energy consumed and on the total final cost of the bill.

The **protected service** to-date is still the reference segment for **Italian domestic customers<sup>58</sup>** (individuals and households), with a participation rate of around **80%** when compared with the total population. In this segment, **during 2012 a further increase was seen in the price** of electricity with regard to 2011: with regard to standard consumption (equal to 2,700 kWh/year, with a power supply of 3 kW), **the cost per kWh** rose from **16.2 Euro cents** last year (equal to around Euro 437 per annum) to **18.7 Euro cents** (equal to **roughly Euro 505 per annum**)<sup>59</sup>. In the breakdown of the cost components, as shown in the following chart, the increases registered for the energy component and for the general system charges stand out.

**CHART NO. 19 – ELECTRICITY PRICE TREND FOR A TYPICAL HOUSEHOLD CONSUMER ( CENTS/KWH) (2011 -2012)**



Source: Electricity and Gas Authority website ([www.autorita.energia.it](http://www.autorita.energia.it)) – statistical data

56 The tariffs are established by the AEEG and updated each quarter, on the basis of the costs which the Sole Buyer (AU) incurs for supplying the needs of protected customers on electricity wholesale markets.

57 The commitments which the free market operators must meet in order to carry out their activities in compliance with the principles of fair competition, include that of making a comparability chart of the costs available to their potential customers. This contains the cost which the average consumer would incur by complying with the free offer of the proponent, compared with the cost calculated as per the conditions established by the AEEG for the protected market.

58 On the basis of the number of energy withdrawal points used by customers (AEEG figures).

59 Average values in the four quarters of 2011 and 2012 (AEEG figures).

With regard to the **protected service, total customers who have a digital meter** capable of reading the consumption in different time brackets are served, as envisaged by the AEEG, **according to a dual phase tariff**. This system rewards consumption used during the evening hours, at the weekend or on public holidays with minor energy costs for the customer with respect to that which takes place in the central hours of the day and on weekdays.

On the **free market**, the percentage of customers served by means of a contract which envisages the **dual phase electricity supply** comes to **7%**. This is likewise in relation to the **greater possibility of choice** for the free market customers **between different price structures** (single phase at a fixed price, all-inclusive tariffs, etc.), specifically introduced by operators in order to meet the different needs of the end customers, in terms of consumption profiles.

With regard to users who avail of the **social tariff system** (so-called “**electricity bonus**”), or rather households which are guaranteed a **saving on electricity costs** since they find themselves in difficult economic conditions or they have particularly large families<sup>60</sup>, **in 2012** Acea Energia served **around 18,000 users, guaranteeing them a saving of more than**

**Euro 1.36 million**. Again in the year under review, Acea Energia served around 340 customers who found themselves suffering physical difficulties, since they are forced to use electromedical equipment which uses a great deal of power, indispensable for their survival.

Sales activities of **Acea Energia** on the **free market**, as mentioned, aim to **satisfy the various needs** in relation to the types of customers: from households to large industrial clients. On the one hand, in fact, customers have accrued more complex and precise needs: from the search for the most convenient price, in fact, in a short space of time we have moved on to the **request for all-round energy advice**, where the price factor weighs in marginally. On the other hand, the electricity and natural gas sales companies present on the market operate in a competitive context, where the **ability to differentiate from the others** and be in a position to offer the most integrated service possible throughout the energy supply chain, also inclusive of the joint supply of electricity and gas, is decisive. With a view to this, Acea Energia structured **the 2012 commercial proposals** adapting the available options to the evolution of customers’ needs (see related box).

## THE COMMERCIAL PROPOSALS FOR ELECTRICITY IN 2012

Acea Energia’s 2012 commercial proposals to the **mass market segment** - residential customers, commercial activities and small and medium-sized businesses - were divided up with a view to developing the ranges launched in 2011, by means of specific promotions for determinate client targets or involving the integration of services on the supply of energy.

In detail, the **Acea Unica** product, in the single and dual phase versions for domestic customers, was renewed with the **integration of an insurance policy** which envisages **assistance and repairs for domestic installations** (electrical, hydraulic, heating/water), completely **free for 12 months**. The insurance product offered to the customers, involving an unlimited number of measures during the year and a maximum amount per measure of Euro 1,000, represents an important sales and, at the same time, loyalty-retention asset.

Attention was also focused on the expansion of the available services, with the aim of permitting the customer the most autonomous and simple management of their energy supply. Specifically, the online counter on the **Acea Energia website**, which had already been revamped in terms of graphics, navigation and usability, **has been enhanced and enriched** with the launch of various services (electricity and gas meter self-readings, bills on-line, payments on-line by means of Visa and Mastercards without commission charges; SMS and email notification on issue, amount and due date of the bills). Thanks to the new functions, the client is able to manage their energy supply with considerable savings in terms of time, ease and security.

Of particular importance, what is more, is the identification of a new customer segment, that of **small businesses**, defined with the aim of more efficiently handling those customers with consumption not typically similar to that of business customers but with specific needs different to those of residential household customers. Acea Energia reserves the support of a network of qualified consultants for the above, capable of ensuring the necessary assistance during the contractual negotiation stage, which takes place with a set of tendentially standardised offers, and for all the post-sales requirements.

With regard to **business and industrial** customers, negotiation takes place on a one-to-one basis, where the customer can benefit from the support of a dedicated account for the identification of the most suitable formula for their energy profile. Acea Energia is also willing to meet the needs for respect and safeguarding of the environment, supplying **CO-FER (RES) certified energy**, in other words that deriving from plants fuelled by renewable sources.

<sup>60</sup> For an analysis of the conditions which entitle customers to request and receive the electricity bonus, please refer to the specific section on the AEEG website: [http://www.autorita.energia.it/it/bonus\\_sociale.htm](http://www.autorita.energia.it/it/bonus_sociale.htm).

During the year, Acea Energia renewed the agreement entered into with **Rome Confcommercio** so as to offer **all the tertiary businesses who are associates** of this organisation **access** to electricity and gas supply **services under facilitated conditions**, thereby setting up a preferential relationship with the client companies which envisages the proposal to block the price of energy on the free market for 12 months, protecting it from market fluctuations.

The aspects underlying this agreement with Confcommercio include that of contributing towards **safety** in the city: the advantageous cost of the energy in fact has the aim of encouraging commercial activities to leave their store signs on also during permitted night-time hours, for the purpose of ensuring greater illumination of roads and thus greater safety.

### **The water service tariff**

After the formal transfer to **the AEEG of the water services regulation and control functions at national level**, which took place last year<sup>61</sup>, in October 2012, by means of Italian Presidential Decree, the related powers and duties of the Authority were precisely defined.

**The AEEG** has been appointed to **carry out all the acts necessary for pursuing a fair, sure, accountable and non-discriminatory tariff system**, suitable for ensuring the management of the water service under conditions of efficiency and economic-financial balance, in light of the EU of full cost recovery principle (full coverage of the industrial and environments costs of the services) and the polluter-pays principle.

As a result of initial reflection the AEEG, after the public consultations launched for cognitive purposes and the involvement of the stakeholders concerned, issued two

resolutions which concern **tariffs** and the **bill**<sup>62</sup>.

By means of the first, the **transitory method** was established for the definition, by the related regional authorities appointed, of the tariffs valid for **the years 2012-2013**. This method<sup>63</sup>, which features a boost towards the standardisation of the entire water cycle, introduces a number of significant innovations to the benefit of the users, also acknowledging the consequences of the 2011 abrogative referendum. These include: the **suppression of the remuneration of the invested capital**, among the items which make up the tariff, with recognition of the cost of the financial resource incurred by the operator; the identification of the moment of payment of the investment costs **as from the effective construction and bringing onto stream of the works**. The Authority also envisaged a change limit for the tariff which will be established using the new method, for the two-year period in question.

The second resolution concerns the minimum content of the information present in the billing documents, their transparency and accessibility, for the purpose of making the **water bills** simple and understandable, thus encouraging a more widespread awareness of the services and an improved performance of their role by the consumer. As a result of this provision, the operators - on the basis of precise deadlines - were also made responsible for the obligation to strengthen on-line interaction with the customers (telephone and web-based), for example publishing the following on their respective websites: the Service Charter, information on the quality of the services and the resources provided, contractual conditions, complaints procedures and a glossary of the main terms in use within the service.

The **effective average tariffs** applied during 2012 by the leading Acea Group water companies are shown in table No. 42.

<sup>61</sup> Italian Decree Law No. 201/11, the so-called 'Salva-Italia', then converted by means of Italian Law No. 214/11.

<sup>62</sup> Respectively Resolution No. 585/2012/R/IDR and Resolution No. 586/2012/R/IDR.

<sup>63</sup> Adopted for all the water management facilities with the exclusion of those which avail themselves of the CIPE method and the management facilities in the provinces of Trento, Bolzano and in the Valle d'Aosta region.

**TABLE NO. 42 – AVERAGE 2012 WATER TARIFFS APPLIED BY THE ACEA GROUP COMPANIES (2012)**

COMPANY	€/MC
<b>Lazio/Campania</b>	
Acea Ato 2 SpA – Lazio centrale	1.18
Acea Ato 5 SpA – Lazio meridionale	1.36
Gori SpA – Sarnese Vesuviano	1.25
<b>Tuscany/Umbria</b>	
Acque SpA – Basso Valdarno	2.18
Publiacqua SpA – Medio Valdarno	2.17
Acquedotto del Fiora SpA - Ombrone	2.10
Umbra Acque SpA – Umbria	1.88

### TARIFF DISPUTES

With regard to the dispute outstanding between **Acea Ato 5** and the local Area Authority (ATO 5 - Lazio Meridionale-Frosinone), the acting Commissioner, appointed by the TAR (Regional Administrative Court) in relation to the continuing inactivity of the ATO to take steps, during the year under review established the average effective tariff (TRM) valid for 2012. The Area Authority appealed against this decision to both the TAR and the Council of State, but in both cases the appeals were rejected. Before his alternation with the Chairman of the AEEG in June, the Commissioner also produced an in-depth analytical report, by means of which he checked the criteria for choosing the TRM and the related planning acts put together by the area body, along with the operations during the years from 2006 until 2011. The ATO also appealed against this report; the appeal is currently pending.

During 2012, developments were seen with regard to a number of petitions, presented by **local Committees and movements for public water together with a number of Consumer associations**, which concerned the two water companies invested in by Acea: Gori, operative with the Campania ATO 3 - Sarnese-Vesuviano area, and **Acque**, which manages the service in ATO 2 - Basso Valdarno in Tuscany.

With regard to Gori, the TAR upheld the claim of the proponents who requested the cancellation of the increase in the tariffs for 2011 laid down by means of resolution issued in the same year by the competent Area Authority. Both Acea and the Body appealed to the Council of State, requesting, and obtaining the upholding, of the suspension of the effects of the TAR sentence until sentencing in this connection, currently awaited. Accordingly, the billing activities were resumed on the basis of the opposed resolution, thereby making it possible to permit the guarantee of operations carried out by GORI.

With regard to Acque, two petitions were presented before the TAR against the resolution issued by the Area Authority in December 2011. The disputed aspects concerned the 5-year extension of the duration for the entrusting of the service to the company, with respect to the deadline envisaged for 2021, and the failure to abolish from the reviewed tariff - as would by contrast have come about as a result of the referendum results - the component remunerating the invested capital. The proceedings as of 31 December 2012 were underway.

## Customer care

### Customer care policy

Customer care is directly entrusted to the operating companies which handle every aspect of the relationship with their customers; furthermore, a Customer Care Unit is operative within the holding company, dedicated to monitoring the performances<sup>64</sup> which provide an integrated view of the activities.

The monitoring envisages the construction, analysis and reporting of the **quantitative and qualitative**

**indicators suitable for gauging the quality of the service provided** via the main channels made available to the general public. Specifically, the qualitative indicators derive from the **surveys carried out using the mystery caller technique**, in other words by means of the simulation of telephone calls by customers to the Acea call centre. The results of the surveys are also used for the purpose of the economic

<sup>64</sup> Activities for monitoring the management performances of the contact channels, carried out by the Customer Care Unit, include nearly all the Group's companies. However, for the purpose of alignment with the reporting area of this section, for the water segment only the performances of Acea Ato 2, operative in ATO 2 - Central Lazio, are presented here.

development (results bonus) of the objectives achieved by Acea8cento operators, the latter being the Group company responsible for the contact center.

Once again in 2012, the activities of the **work group** co-ordinated by the Customer Care Unit, continued at centralised level, **dedicated to mapping the situations which may generate complaints** and supporting the operating companies in the identification of appropriate corrective action with the aim of **responding more effectively to customers' expectations**.

During the year, the project for the introduction, at Group level, of the **new Customer Relationship Management (CRM Enterprise) system** was launched, with the aim of facilitating the corporate strategy targeted at optimising the customer relationship. The project, which stretches over a period of two years and embraces the various business areas, shall initially be applied within Acea Energia, the company responsible for the sale of electricity and gas, with particular reference to the gas sector and the dual fuel offer (electricity and gas) on the free market. The plan envisages not only the introduction of **a unique technology for the CRM**, but also the adoption, at Group level, of a **Document Management System (DMS Enterprise)** for the computerised handling of all the documentation which passes through the company by means of the various channels (post, fax, e-mail, counter, website) and a **new Telephone Platform**.

In Acea Energia, a project was achieved during 2012, entitled "**Acea Energia Customers**", aimed at **increasing customer satisfaction**: three teams, made up of Acea Energia employees and co-ordinated by Parent Company structures (in particular the Human Resources Division Organisation Unit, supported by Customer Care) put together action targeted at **simplifying the processes** activated further to customer requests, granting greater autonomy to the remote channels; **reducing the flow to the counters**, starting off from the analysis of the main reasons for accessing the same;

more fully **adapting the availability of the counter services** in line with the customer flow methods.

Again care of the company which handled the sale of electricity and gas, a **performance improvement programme** entitled **MICO** (on-going improvement) was launched during 2012, with the aim of identifying and implementing an initial group of improvement areas ("pilot sites") and spreading in-house the culture of on-going improvement, excellent performances and techniques for maximising the value of the customer (lean management). The initial stages of the programme led to the training of around 40 Acea Energia individuals and the identification of a number of "sites"; two of these concerned the **quality of the service offered to the customer** and more precisely the reduction in the number of contacts due to problems concerning the metering and billing and the increase in the quality of the service for customers on the protected market. A process was completed for both these "sites", involving the analysis of the problems, the definition of a problem measurement metrics and a target to be reached and the identification of a number of solutions; during 2013, these solutions will be implemented and steps will be taken to measure the results.

Acea Ato 2 and the other **water companies** prepared themselves to **efficiently deal with the sector regulation**, entrusted in 2012 to the Authority already active in the energy sector (AEEG). With the specific commitment of Customer Care and the Regulatory unit, the Parent Company organised informative seminars targeted at the water companies to illustrate the experience already accrued by the companies operating in the energy sector (distribution and sale of electricity and gas).

Together with the main Consumer Associations, Acea also supported a project aimed at surveying, throughout Italy, **the point of view of the consumer with regard to current topics associated with the water and electricity services** (see related box).

## ACEA AND THE CONSUMER ASSOCIATIONS: WATER AND ENERGY, WHICH FUTURE?

During 2012, **Acea supported and furthered the project entitled "Water and Energy, which future?"**, created in collaboration with an institute specialised in public opinion surveys and a number of Consumer Protection Associations - Adoc, Adiconsum, Federconsumatori, Lega Consumatori -, **with the aim of detecting**, one year on from the referendum, **the point of view of the consumer with regard to current topics associated with the water and electricity services**. The surveys, carried out in Italy, involved a total sample of 4,800 citizens (2,400 for each service surveyed).

With reference to the **water service**, those interviewed expressed their opinion on the quality, indicated their consumption habits and illustrated the reasons underlying the expectations developed, also in light of the referendum results, while the surveys relating to the **electricity service** had the purpose of revealing the sensitivity of the citizens with regard to environmental protection, the commitment of the consumer to adopt eco-sustainable consumption habits and their awareness regarding energy saving solutions, renewable energy sources and the green economy. The emerging data revealed a considerable opening up of the citizens with regard to environmental matters: **95% declared that they were willing to commitment themselves sufficiently or more in the adoption of a more sustainable lifestyle**.

The projects also saw the organisation of **two round tables**, in Rome: *Acqua in scena – i consumatori vogliono sapere e contare*, held in June at Palazzo Rospigliosi, and *L'energia di domani – i quesiti dei consumatori*, in October, at the Chamber of Commerce, during which the results of the surveys were presented and the representatives of the Consumer associations, business circles and the authorities competent with regard to water and electricity service entered into discussions, reflecting on the possible future scenarios of the two sectors.

**Acea Energia** put together, also irrespective of the fulfilments envisaged by the regulations of the Sector authorities, a series of projects with the aim of **preventing the phenomenon of unrequested contracts**, implementing precise **procedures aimed at ensuring the utmost protection of the free market customers** (see related box for details).

The company responsible for electricity and gas sales also established an **internal audit process** for cases

of eventual incorrect commercial practices (mis-selling) **which envisages the application of monetary and disciplinary sanctions vis-à-vis the sale network**. In order to prevent such conduct, activities have been enhanced for the **training of those involved** in sales, with the aim of clearly and accurately transmitting the principal notions relating to the free market dynamics and the sales proposals of Acea Energia (also see the section *Tariffs* and the part on *Suppliers*).

## ACEA ENERGIA: INTERNAL PROCEDURES PROTECTING FREE MARKET CUSTOMERS

In compliance with AEEG Resolution No. 153/12, **Acea Energia sends a confirmation letter to all the customers who have complied with a sales offer on the free market**. The letter informs the customers of the details of the offer they have complied with in order to ensure complete awareness of the choice made. After the sending of the letter, and on a precautionary basis, the **process for the activation of the commercial offer is suspended for 45 days**, in order to permit the best handling of any complaints for unrequested contracts. Once this period has elapsed without having received any indication from the customer subject to the proposal, the latter is activated.

The company **also wished to implement additional procedures** with respect to the fulfilments envisaged by Authority regulations, **aimed at the phenomenon of unrequested contracts**, establishing that:

- the customers who have subscribed to a offer on the free market via door-to-door sales networks are also contacted by telephone, for the purpose of **checking that the content of the contract signed has been stated clearly and that the conduct of the sales person was correct**; in the event of a negative answer from the customer, the possibility of proceeding with the activation process for the new offer is prevented in the computerised information systems;
- the customers who have subscribed to an offer on the free market via the telephone sales network (teleselling) are further protected thanks to the **playback of all the telephone call registrations produced by the sales agents** which are carried out by Acea Energia; in the event of a negative outcome from the playback, the possibility of proceeding with the activation process for the new offer is prevented in the computerised information systems.

At the end of the trial period launched in August 2012, Acea Energia intends to include these additional activities, during 2013, in a **Voluntary self-regulation protocol** so as to prevent the phenomenon of unrequested activations and contracts for supplies of electricity and natural gas.

In the event of **sales disputes** with the company, the customer has the **possibility of resorting to the joint settlement procedure**, an instrument for the out-of-court settlement of disputes. The joint settlement procedure **is operative in Acea** both **for the water service** - care of the companies Acea Ato 2 and Acea Ato 5 - and for the **electricity service** - Acea Energia.

Furthermore, during 2012 **joint settlement was also introduced for the electricity distribution service** and **Acea Distribuzione** was the **first Italian company in the sector** to offer its customers this service (see *Institutions and the Company*). The legal disputes during the year between Acea and the customers are illustrated in the related box.

## DISPUTES WITH CUSTOMERS

**Legal disputes** which customers furthered vis-à-vis Acea Group companies mainly concern: disputes relating to tariff problems, rebates and delays in the activation of the supplies. It should be pointed out that in 2012 the problem of **estimated billing** of energy consumption was particularly critical, not corresponding to the effective consumption recorded by the meters (see also the box dedicated to the measures of the sector Authorities, in *Corporate identity*).

Total disputes between the company and customers did not undergo any significant increase with respect to the previous year: the overall figure as at 31 December 2012 came to around **330** cases (300 in 2011). **94** disputes were settled during the year mainly by means of transaction, **44** of which opened and closed in the same year.

With respect to disputes with other stakeholders (employees, suppliers), those with customers are numerically more consistent but also have a shorter duration and a lower economic unitary value, with an average value of Euro 2,650.

## Contact channels and performance

Customers can contact Acea and the other Group companies via an **exchange** which puts them through to corporate offices and sites; the **commercial free-phone numbers, free-phone numbers** for

**reporting faults, the counters** (physical and online), or further still via **letter, fax** or **corporate websites** ([www.acea.it](http://www.acea.it), [www.aceaenergia.it](http://www.aceaenergia.it) and [www.aceaato2.it](http://www.aceaato2.it)). The "key customers", such as companies and institutions, have dedicated structures.

## TELEPHONE CONTACT CHANNELS

- Acea **exchange: 06/57991**
- **Commercial electricity** free-phone number for the **protected service: 800.199.900**
- **Commercial electricity** free-phone number for **free market** customers: **800.130.334**
- **Commercial gas** free-phone number for **free market** customers: **800.130.338**
- Free-phone number for **free market supplies: 800.130.333**
- **Commercial water** free-phone number: **800.130.331**
- Free-phone number for **water complaints/faults: 800.130.335**
- Free-phone number for **electricity and public lighting complaints/faults in Rome: 800.130.336**
- Free-phone number for **cemetery lighting** service: **800.130.330**
- Free-phone number for **district heating: 800.130.337**

*NB: Acea guarantees respect for privacy in managing personal information in all relations with customers (in accordance with Italian Legislative Decree No. 196/2003 and subsequent amendments and additions).*

The main operating companies avail themselves of **Acea8cento SpA** for the handling of one or more **remote channels** - telephone, fax, webform, e-mail - for mainly commercial use<sup>65</sup>. The service performed by the contact center features the maximum level of operations, guaranteeing - in as far as it is possible - quality, promptness and uniformity in the solution of the customer's requests.

Furthermore, Acea8cento **identifies possible areas for improvement** in the "remote" handling of customers and implements specific projects: in 2012, in particular, the **extension, to 24 hours, of the Acea Energia commercial free-phone numbers service** was planned and implemented on the telephone platform (for the protected, free market and gas sector customers). In addition, in November and December 2012 the implementation on the telephone tree of the **service for the acquiring self-readings for electricity supplies** in the various time brackets was planned and carried out, with Acea Energia; it was then **set up and running in January 2013**.

Therefore, Acea Energia was able to enhance **its electricity sales dedicated free-phone numbers**, ensuring the coverage of the **service over a time-space of 24 hours**.

Furthermore, following the analysis carried out by the "Acea Energia Customers" project team, **also the counter** was progressively **enhanced with new operators**, with specific reference to the free market service, and it was reorganised in terms of multi-functionality between the front end and back office activities, placing each operator in a position to both serve the customer at the counter and handle the paperwork. In the public hall at headquarters, the area made available to customers for sorting out the most simple problems via the call center **was equipped during the year with a greater number of telephone devices** and a printer activated remotely by the call center operators. In conclusion, during 2012 Acea Ato 2 launched an **installation project for 2 "virtual tellers"**; the virtual counters will allow water service customers to interact achieving the simple and rapid handling of the commercial requests. Activities are still in the test stage

and during 2013 the two devices shall be installed in the public hall for the launch of the first pilot phase; further to the valuation of the results achieved, the project envisages extension of the use of the virtual tellers to peripheral offices as well and to municipal authority premises currently lacking counters open to the public.

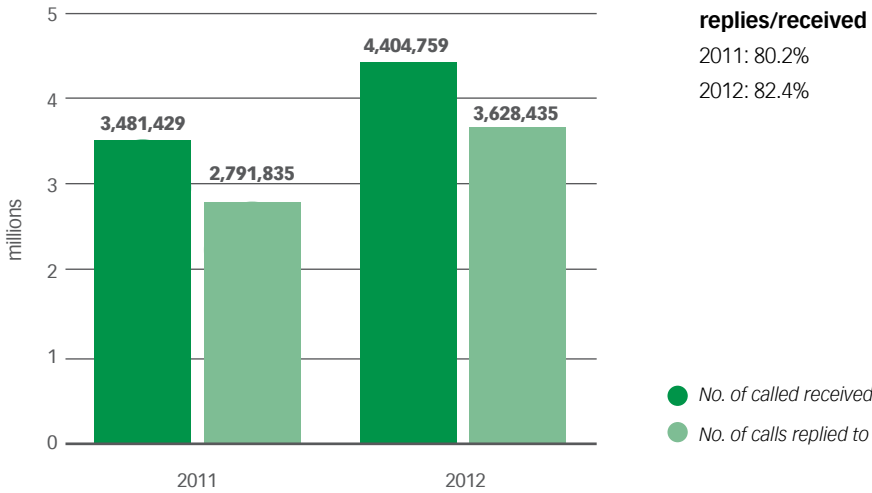
The **billing processes** were affected once again during the year under review by the change in the computer system, which took place in the second half of 2011, for the handling of the electricity sales activities to protected market customers. **In order to get round the dialogue problems between computer systems**, which limited the possibility of using readings made for the billing of consumption, Acea Energia took steps, via Acea8cento, to implement the **self-readings acquisition service** (activated in January 2013), **also for supplies with electronic meters**, both for protected and free market customers. In this way it will be possible to more fully align the billed consumption with the effective consumption also in the event of failure by the electronic meter to transit data to the billing system.

The **Acea free-phone numbers** during 2012 received a total of around **4.4 million calls, up by 27%** with respect to the roughly 3.5 million calls received in 2011; this change mainly depends on the increase in calls to the commercial free-phone number dedicated to the free market but also the rise in calls to the electricity service for protected customer services. In this latter segment, the increased need for contact is due to the fact that in 2012 situations consequent to the changes to the computer system introduced last year were still being handled. The **percentage-related distribution of the volumes of calls** received confirms the greater importance of the commercial free-phone numbers for the electricity sales service, which cumulatively absorb around 72% of total calls; a positive reduction is also revealed in the percentage attributable to free-phone numbers for reporting electricity faults, from 6.7% last year to 4.8%, which is also matched by a reduction in absolute value (see charts No. 20 and 21 and table No. 43).

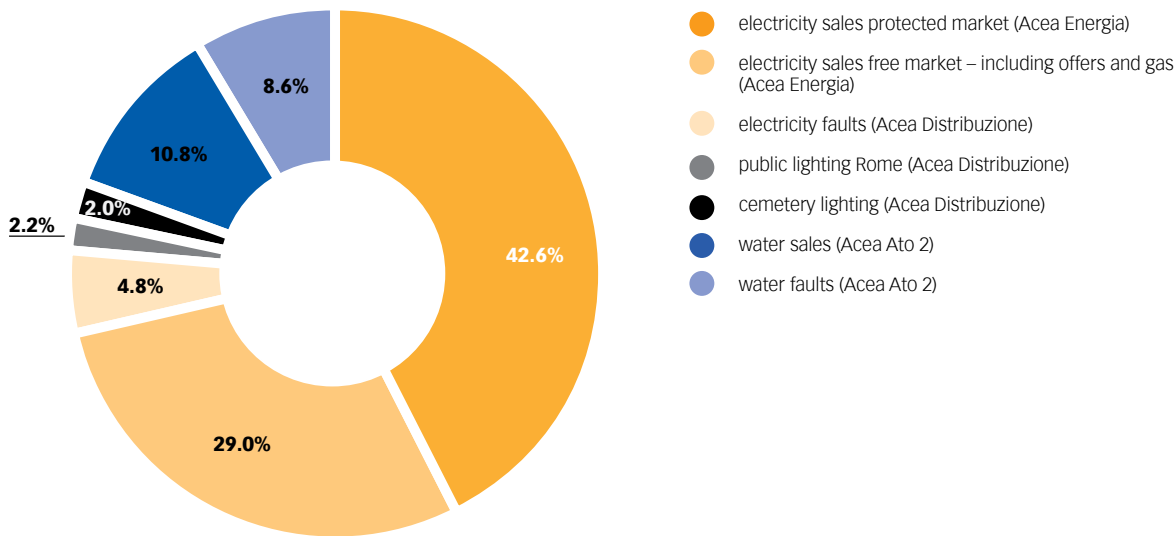
<sup>65</sup> Besides the commercial channels, Acea8cento also handles the numbers for reporting faults for the water services carried out by Acea Ato5 and for the cemetery lighting service seen to by Acea Distribuzione.



**CHART NO. 20 – TOTAL TELEPHONE TRAFFIC OF ACEA FREE-PHONE NUMBERS (2011-2012)**



**CHART NO. 21 – PERCENTAGE-RELATED DISTRIBUTION OF THE TELEPHONE TRAFFIC RECEIVED BY ACEA FREE-PHONE NUMBERS IN 2012**



The Gas and Electricity Authority appraises the call centres of the electricity and gas suppliers and, on the basis of global scores<sup>66</sup> (TQI) assigned by means of six-monthly surveys to each operator, draws up a classification making the same public<sup>67</sup>. The classifications drawn up by the Authority, available at present, disclose - for the first half of 2011 and the first

half of 2012 - the loss of 5 places (from 20<sup>th</sup> to 25<sup>th</sup>) for the Acea Energia call center service. However, an increase in the positioning within the classification compared to that in the second half of 2011 should be revealed, when the company, due to the loss of three months of automatic instruction services further to the separation of the computer system, was unable to

<sup>66</sup> The global score comprises three partial scores: two of which refer to figures for the quality delivered – access to service (PA) and service quality (PQ) – and the third concerning the results of surveys on the quality perceived by customers – degree of customer satisfaction for those contacting the call centre (PSC) –, carried out by the Authority.

<sup>67</sup> The classification on the quality of the call centres of electricity and gas sellers, processed on the basis of the figures for the first half of 2012, is available on the website of the Electricity and Gas Authority ([www.autorità.energia.it](http://www.autorità.energia.it)).

declare the related score, dropping to 28th place. Having recovered this function during the first half of 2012, the advantage was partly mitigated by the clarifications provided by the AEEG regarding the additional scores on the Access to Service (PA) and Service Quality (PQ) area, which must only be declared if the characteristics belong to all the numbers of the call centers used by the operator, with a review of the inclusion criteria for certain scores. Acea Energia straight away adopted a number of initiatives aimed at improving the service, in particular taking steps to keep the call centers open 24/7; this will positively affect the score in the Access to Service area and, therefore, the positioning in the classification.

With regard to the **other Acea free-phone numbers** – water sales, reporting of faults for the electricity, water, public lighting and cemetery lighting services– the main

performance indicators for the last two years are shown in Table No. 43.

**With regard to the electricity services**, a further **significant improvement in the service levels** has been seen (% replies out of calls received), with respect to last year's performances; along with recovery in the water faults service and a slight deterioration for water sales. The **average waiting times** disclosed an improvement, with the sole exception of the Acea Ato 2 commercial free-phone number, which remains more or less stable. The latter service (water sales) once again in 2012 reported an **increase in the number of calls** due to both the new tariffs introduced in the previous year (application of the single tariff, introduction of the special tariff for customers in determinate conditions of economic hardship, amendment of the billing plan from six-monthly to quarterly) and due to debt collection activities.

**TABLE NO. 43 - THE MAIN PERFORMANCE INDICATORS OF THE ACEA FREE-PHONE NUMBERS (2011-2012)**

performance indicators	electricity faults (Acea Distribuzione) (*)		public lighting (Acea Distribuzione) (*)		cemetery lighting (Acea Distribuzione)		water sales (Acea Ato2)		water faults (Acea Ato2) (*)	
	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
total No. of calls received	233,859	211,440	90,580	95,547	69,891	89,436	392,601	476,290	370,632	380,092
total No. of replies	213,961	203,496	84,714	92,678	59,149	82,131	271,215	314,047	285,274	305,798
% of replies out of calls received	92%	96%	94%	97%	85%	92%	69%	66%	77%	81%
average waiting time before reply (min. seconds)	1m 31s	39s	1m 10s	35s	1m 35s	1m 08s	2m 10s	2m 28s	4m 06s	3m 38s
average conversation time (min. seconds)	1m 39s	1m 46s	1m 25s	1m 34s	3m 14s	3m 57s	3m 45s	3m 47s	2m 30s	2m 47s

NB: the table does not include the performances of the commercial free-phone numbers of the electricity service subject to regulation by the Gas and Electricity Authority and commented on in the text.

(\*) the telephone calls satisfied by the automatic system or terminated by the customer during navigation of the automatic call system are also considered to be replies.

Customers can also use the **websites of the various service companies** ([www.aceaenergia.it](http://www.aceaenergia.it) reported 1,223,595 visits in 2012 and [www.aceaato2.it](http://www.aceaato2.it) 435,949 visits), directly or transiting via the website of the holding company ([www.acea.it](http://www.acea.it)), which have **on-line counters**. This makes it possible for the customer to carry out contractual and commercial transactions, request information and check billing and payments.

Specifically, on the **Acea Energia website**, renovated during the last quarter of 2011, the **on-line counter** - which as of 31 December 2012 had **around 30,000 registered customers** - **extended the range of available services**, with the aim of providing customers with useful support for the handling of their electricity and gas supply in terms of availability and disclosure clarity. In addition to the possibility of viewing the trend

in consumption and the bills, during 2012, the following services were activated:

- **on-line payment** (this permits the payment of the bills for all the supplies);
- **web bill** (for free market customers - this permits one to receive the bill via e-mail eliminating delivery times without incurring any cost and respecting the environment);
- **SMS and e-mail notification services** (for free market customers - the customer is informed in real time of the issue of the bills and the related payment deadlines);
- **contract cancellation, transfer or take over transactions;**

- **electricity and gas self-readings** (also for customers who have electronic meters - activated in January 2013). Furthermore, updates have been developed aimed at improving navigation and the retrieval of information, both that more useful to customers already existing and that addressing potential customers (services, products and new sales promotions). A direct form of communication with a strong impact was chosen to present the new sales proposal packages in order to makes the features of the products clear to the user in relation to the various needs and consumption habits (see section on *The tariffs*) and a new form was implemented which makes it possible to comply with the proposal simply and rapidly, reducing the data registration and compilation time.

### ACEA ENERGIA OPENS UP TO THE SOCIAL NETWORKS

Launched in March 2012 at the time of the Rome Marathon for the promotion of the campaigns "Vivi l'energia a modo tuo" (Live energy in your own way), the **Acea Energia fanpage on Facebook** progressively became a channel for:

- communication of events, appointments and occasions for visibility of the brand and presence of the company;
- promotion of new products and services via post and viral activities;
- training and information on aspects relating to the world of energy (home automation, certification and energy saving);
- monitoring of the level of customer satisfaction and development of positive perceptions;
- handling of the requests for intervention or information made by the customers, with simultaneous "education" on the use of the correct channels for executing the procedures.



During 2012, the **Acea Ato 2 on-line counter** received **16,137 new registrations**, for a general total of 42,894 registered customers, confirming the growing trend of the last few years; work was also carried out during the year for the rationalisation of the on-line subscribers. eliminating partial or incomplete registrations stratified in previous years. A **virtual assistant** is active in the on-line counter, guiding the customer with regard to

the use of the various functions available, which at the end of 2012 have been implemented: today, the water service customer can directly carry out transfer, take over, cancellation and record file information changes via the website. In order to spread awareness of the new functions of the on-line counter among customers, Acea Ato 2 sent an information leaflet during the first 2013 billing cycle.

The “physical” counters for **electricity, gas and water service** customers are located at the **public hall** at the **Acea central headquarters** in Piazzale Ostiense, Rome; other counters are found at the satellite offices in Ostia Lido and the company Acea Ato 2 manages another **11 counters** dedicated to the water services **in the Rome province area**, and a mobile office, operative during every working day. Acea Energia opened a counter in 2012, on an experimental basis, for the electricity service **at the headquarters of the IV Municipal area** in Rome; these premises were chosen due to the logistic location, the extreme opposite direction to the Piazzale Ostiense offices, and therefore suitable for providing the service to customers in the north-east sector of the city.

During 2012, **the public hall at the central headquarters received a total of 280,987 customers, up 41%** with respect to the 198,983 customers registered in 2011. The **figures regarding the turnout at the various counters** shows a **general upwards trend** in the last three years (see

table No. 44): the majority of the visitors availed of the services offered at the counter dedicated to protected market customers, of the electricity sales company, but there was also an increase in visits to the counter dedicated to free market customers, in part deriving from the consolidation of the customer handling in the gas sector, and to the counter dedicated to the water service; by contrast, the turnout figure for the **water service counters** in the **Rome province area bucked the trend**, where visits fell from around 160,000 in 2011 to roughly 134,000 in 2012.

**The service levels** (expressed by the ratio of customers served to tickets issued) for the counters at central headquarters **once again in 2012 confirmed themselves to be very high**. The **energy sector counters** were managed so as to balance as far as possible the **waiting times for the two types of users**: the protected and free market customers waited on average 44 - 45 minutes; the **water counters**, despite the increase in visits, served customers in a shorter space of time with respect to 2011, involving a **net improvement** in the last few months of the year.

**TABLE NO. 44 - COUNTER PERFORMANCE AT CENTRAL HEADQUARTERS (2010-2012)**

	electricity service Acea Energia (protected market)			electricity service Acea Energia (free market)			water service Acea Ato 2		
	2010	2011	2012	2010	2011	2012	2010	2011	2012
tickets issued (No.)	128,180	129,592	175,505	10,824	37,994	66,906	24,960	31,397	38,576
customers served (No.)	125,740	125,672	174,315	10,419	36,732	66,612	24,414	30,734	37,475
level of service (customers served/tickets issued)	98%	97%	99%	96%	97%	100%	98%	98%	97%
average waiting time (mins.)	21	34	44	38	58	45	26	35	31
average service time (mins.)	9	10	10	13	10	10	14	14	12

*NB: the counter for the free markets was opened in July 2010*

**Written complaints** are managed by the operating companies according to **in-house procedures** which make it possible to follow, via **computer**, the documentation process: from the initial report to its solution.

With regard to the **electricity service**, the timescales and the percentages for **responding to complaints/written requests for information** represent specific and general levels of commercial quality **for the sales company**, laid down by the Gas and Electricity

Authority. In cases where the vendor, so as to reply to the customer, needs to obtain **technical data** from the distributor, the latter - as per the specific level - must make this information available within 10 or 15 business days according to the type of information requested. Replying to written complaints is also included under the **general quality levels** which the distributor is responsible for (**reference is made to the section Quality supplied**, tables No. 27-31).

Responses to **written complaints/requests**

concerning the **public lighting service** (reporting of faults, requests for new systems etc.) are seen to directly by Acea Distribuzione, which promptly answers the same. In 2012, **1,171 complaints were received**, a figure **down by around 7%** with respect to the 1,264 complaints in 2011. The company **had replied to 1,131 complaints** by 31 December, around **97% of the total**, and roughly 93% of the replies were given within 30 days; the remainder were dealt with in the first few months of 2013.

**With regard to the integrated water service**, Acea Ato 2 received **a total of 12,700 complaints/requests** from the various municipalities managed (Rome and Province), **92% of which were dealt with**. The increase in the figures with respect to the previous year is essentially due to 3 phenomena: an additional tariff adjustment approved by the Mayors' Conference and applied to customers during 2012, the water emergency with the related shift system and the "arsenic" emergency which occurred in a number of municipalities in the province of Rome (also see *Quality in the water sector*, under *Quality supplied*).

The **bill** sent to the customer, besides showing the costs for consumption and the service and the payment terms, contains **other information**. In detail, on the bill for the electricity supply service, a dedicated space conveys specific communications to the customer, lists the possible payment methods and the possibility of paying amounts due by instalment, the handling of meter readings, the opening hours and location of counter services, the website address, special terms in the event of use of electro-medical appliances, etc.. In 2012, a space for the summary of the consumption was introduced on the bill and for 2013 further **rationalisation of the data shown** in envisaged so as to facilitate comprehension and reading of the bill by the customer.

## Communication, events and solidarity

### Communication

**External Affairs and Communication** is the Division of the holding company which is tasked with overseeing the various forms of communication used by Acea to

interact with the stakeholders and the social context which the company activities take place in.

Acea, which boasts more than a century of business activities, has a consolidated presence and participates in the area: it contributes towards the **achievement of cultural, sporting or environmental-interest events**, it supports **solidarity initiatives**, and intervenes during manifestations and **conventions linked to the core business activities**. Furthermore, the company proposes **advertising and awareness-raising campaigns** addressing citizens, **sees to relations with the press bodies**, and furthers external communication by means of the company **website**.

The **Acea website** – [www.acea.it](http://www.acea.it) –, prepared in an Italian and English version, **conveys the institutional and financial communication of the Group** and makes the **contents available and updates them** with the aim of satisfying the disclosure needs of the parties concerned. The website is divided up into theme-based sections, where it is possible to find information on **corporate governance** and the **value codes**; on **sustainability**, on **quality and safety**, view **economic-financial documents**, the stock performance of the market, the presentations and price sensitive communications, in line with Consob recommendations on listed companies. There are areas present on the **home page** dedicated to news - daily updates on company activities and broader topics on energy, water and the environment - and to events furthered by the Group companies. Particular attention has been focused on **matters linked to the subject of sustainability**: in order to implement the informative contents and stimulate the visitors to reflect, information has been included **in the news** for the last quarter of 2012, **on a weekly basis**, relating to **events and publications** on important topics such as smart grids, renewable cities, energy system, climate changes, conservation of nature, etc. Furthermore, during the year **the section of the website dedicated to the Sustainability of the Group was renewed and updated** and, in the **section** dedicated to **Rules and Values**, following adoption of the **new Ethical Code**, the contents were completely overhauled.

The part of the **website** dedicated to **communication** activities presents the main initiatives which the company is involved in, the daily **press review**, the company magazine archive, the advertising campaigns,

a “close up look” section and an **audio/video** area. In conclusion, specific sections have been drawn up for the **suppliers** and whomever is interested in working for the company.

From the company website one can access the two **energy and water macro-areas**, where **information on the operating companies** in the energy and water sectors is available along with links to the websites of a number of Group companies. Specifically, **the websites of the companies which manage the services** make information available to the customers which the latter may require along with the “**on-line counters**” via which it is possible to carry out most of the commercial transactions remotely.

On a consistent basis with the greater attention dedicated to aspects of sustainability, as from March 2012 A.R.I.A. (Acea Risorse e Impianti per l’Ambiente), in the energy area, made **the emissions, monitored in real time, by the waste-to-energy plant**, fuelled by WDF, **at San Vittore del Lazio**, available on-line.

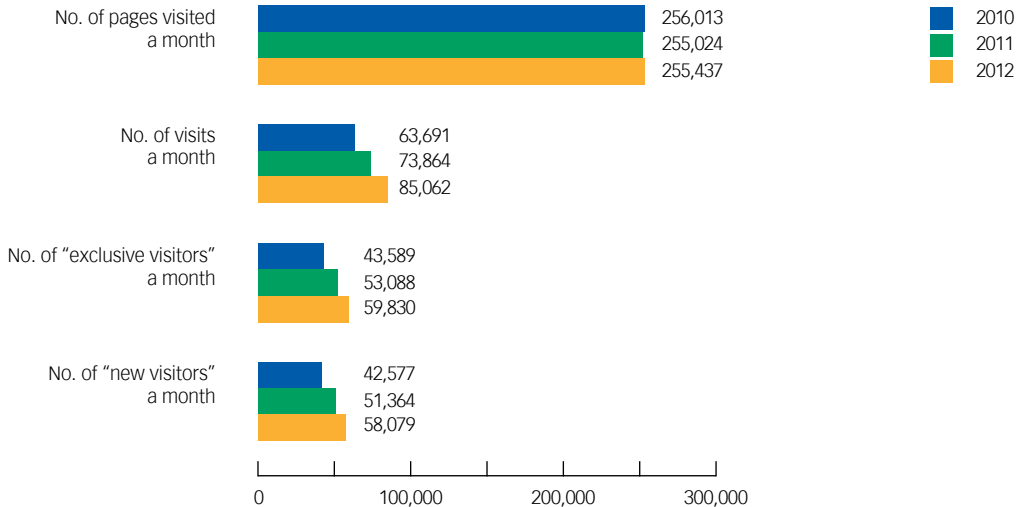
In conclusion, once again in 2012 websites have been created which host the **on-line** and interactive versions of the **Group Consolidated Financial Statements** and **Sustainability Report** (referring to the 2011 accounting period), in Italian and English.

During 2012, the **company website** received **1,020,749 visits in total, 15% more** than the 886,375 in 2011, with a **monthly average** of around **85,000 visits**, of which roughly 70% were “new visitors”.

All the access indicators illustrated in chart No. 22 rose considerably between 2012 and the previous year. **The pages visited the most**, besides the home page (24.60%), were access to the energy section (6.62%), the page with the free-phone numbers and opening hours of the counters in the Acea Energia Customers Area (5.03%), the water section (4.63%), the Acea SpA section (4.57%) and the Communications area (3.63%).

The **website of the companies which manage the services** were much more frequently visited than in 2011: the **Acea Energia** website - [www.aceaenergia.it](http://www.aceaenergia.it) - the company which sees to the sale of electricity and gas, reported **1,223,595 visits, + 60.6%** with respect to the 762,000 visits in 2011, the **Acea Ato 2** website - [www.aceaato2.it](http://www.aceaato2.it) - the company which manages the water service in Rome and the other municipalities of ATO 2 – Central Lazio, reported **435,947 visits, + 25.6%** with respect to the 347,060 in 2011, and the **Acea Ato 5** website - [www.aceaato5.it](http://www.aceaato5.it) - the company which provides the integrated water service in Frosinone and the other municipalities in ATO 5 - Southern Lazio, with **136,308 visits, + 28%** with respect to the 106,419 visits last year.

**Chart No. 22– ACEA WEBSITE: THE MAIN INDICATORS (monthly averages 2010-2012)**



The **Press Office** Unit, within the External Affairs and Communications Division, oversees the dealings with press bodies. Every day, it **drafts the press review of the leading Italian broadsheets** and a number of local newspapers, making it available to colleagues via the company **intranet**. **External parties** are also offered **accurate and up-to-date information**: on the Acea website, in fact, there is an area which contains a specific press review on the water sector and a **selection from the main review**; when possible, the web space also includes television and radio services on the company.

**The reports**, relating to the services handled by the Group, **conveyed by the newspapers**, are precisely **responded to by the Press Office**. Such activities are carried out in close collaboration with the competent operating companies and interacting with the editorial staff of the newspapers willing to publish the company's responses. Other reports are received via e-mail, fax and direct telephone calls and receive prompt responses. In particular, during 2012 attention was focused on the electricity and gas sales service and, via the Press Office, Acea Energia representatives took part in national television and radio programmes so as to clear up some of the problems which had taken place with regard to billing, further to the change in the computerised management system, in the second half of 2011. The Press Office circulated a number of Press Releases aimed at explaining that these problems were being progressively sorted out. (Also see the section *Customer care*).

**Press releases** highlight **the most important events**, and, in the case of **economic-financial disclosure**, following shareholders' and board meetings or at the time of publication of financial statements and reports, the Press Office works together with the Investor Relations Division.

Fact sheets disclosed via the media or on the institutional website emphasise the Group's specific activities and draw attention to the main manifestations, conventions, cultural, sporting and socio-environmental events which Acea takes part in as sponsor, with the setting up of exhibition areas or the support of its speakers.

During 2012, the Press Office paid particular attention to **initiatives on the quality of the water distributed in Rome**, which saw the creation of technical round tables between Acea Ato 2 and the Local Health Authorities, and on the **subject of electric mobility**, which **continued to be topical for the company**, thanks to the agreements signed in 2011 with Fiat for the creation of an electric company fleet (the first batch of 40 vehicles has already been operative since last year), and with Enel and Rome City Council<sup>68</sup> for zero-emission mobility, with the installation of 200 recharging stations for electric vehicles (100 by Enel and 100 by Acea) equipped with technology capable of permitting interoperability between the infrastructures of the two companies (see related box on *Quality supplied*). The subject of **intelligent networks** – smart grids – was also highlighted thank to Acea Distribuzione's commitment; it is progressively applying technological innovation to the energy distribution networks of the Capital.

The attention of our customers was directed to the **first settlement protocol** in Italy in the sphere of **electricity distribution**, entered into between Acea Distribuzione and the leading consumer Associations, which makes an out-of-court settlement possible for disputes, and the **new functions of the on-line counter** activated by Acea Energia (also see the section *Customer care*).

In conclusion, the Press Office supported **the work of the Acea Emergency service teams**, in the water and electricity area, who came into action so as to deal with the problems due to the snow emergency in Rome (see related box).

<sup>68</sup> Following the memorandum of intent, entered into by Acea and Enel in February 2011, for the installation of 200 recharging stations for electric vehicles, the agreement was finalised in April 2012 with a new memorandum also signed by Rome City Council. During 2012, the implementing stage of the project was launched.

## ACEA REWARDS THE TASK FORCE FOR KEEPING ITS COOL IN THE SNOW

Between the end of January and February 2012, abnormal weather conditions affected Rome, which was covered in a thick blanket of snow. The heavy snowfall and the icy wind, which swept from the coast to the historic heart of Rome, persisted and created a state of emergency due to natural calamity. A task force of **45 Acea Emergency Service teams**, from the water and electricity sectors, **3 daily shifts covering 24 hours**, was brought into action to deal with the exceptional wave of bad weather.

Acea, in constant co-ordination with Rome City Council's Civil Defence Agency, involved blue-collar workers, office workers and engineers who took part in the risk management activities according to the Snow and Ice Plan, implementing the services on the basis of the levels of criticality reported. The emergency also affected the municipalities in the province of Rome and Frosinone where the employees of the Group companies worked flat out to ensure water and electricity services, despite the terrible conditions.

*"Acea at the forefront, to ensure its services in the face of difficulties and unexpected events with a sole objective: supporting citizens. Service spirit and ability to innovate, at any cost and not always in the best conditions..."*. These are the words which accompanied the images shown at the "La Fornace" Conference centre during a **prize-giving ceremony**, held in April, when **Acea wished to thank its employees** for their professional approach and commitment shown.

Once again in 2012, ventures continued for raising the awareness of customers and citizens with regard to the **value of the services provided**, including the up-dating of the **information relating to the lighting designs system** of the capital (lighting units, LED bulbs, network length, lighting efficiency, etc), **published on the company website**, and the launch of a **campaign** for informing the citizens of **the quality of the drinking water**, furthered by the Coop and in collaboration with Federutility (see related box).



## ACEA: COOP AND FEDERUTILITY, MAXIMUM TRANSPARENCY ON WATER

**The quality of tap water at the forefront** in the national campaigns launched by Coop together with Federutility in November 2012.

For Rome the initiative: **Maximum transparency on water** availed itself of Acea's collaboration. Thanks to the agreement, in **500 Coop supermarkets and hypermarkets**, present in Italy, consumers will find **a sign with the main chemical and physical characteristics of the drinking water**, updated periodically by the local operators of the aqueducts. The characteristics of the drinking water to be indicated on the signs **have been identified in agreement with the National Institute of Health**. The parameters are nine: concentrations of hydrogen ions (pH), chlorides, ammonia, nitrates and nitrites, dry residue at 180°, hardness, fluorides and sodium. For each one of these, the consumer will find the **limits envisaged by law and the value analysed in the pertinent area**. The quality of water intended for human consumption, disciplined by Italian Legislative Decree No. 31/2011, envisages controls carried out by the operators and controls carried out by the Health Authorities.

"Rome's water is guaranteed around the clock", emphasised the Chairman of Acea Ato 2, during the presentation of the initiative. "We have guaranteed water quality for 100 years – he confirmed – and Rome's water is hygienically guaranteed from a microbiological point of view and also has a fair degree of mineralisation. In just one year in Rome, more than 200,000 checks are carried out and continuous controls have been enhanced". A map of Rome is available on the websites [www.acea.it](http://www.acea.it) and [www.aceaato2.it](http://www.aceaato2.it) with links to the water quality analysis tables.



With regard to important initiatives supporting civil society, in 2012 Acea wished to **sponsor Rome Capital Museums System** so as to **promote culture and art** in the series of municipal museums and archaeological sites open to Roman citizens and numerous visitors. In order to support the initiative **a campaign** was created, intending to emphasise **Acea's active presence in the every-day life of the city** and turn to account the sponsoring, in terms of qualified notoriety. Graphically, the brand envelops the images and focuses on two photographic subjects: a classic one, which reproduces a sculpture of the Capitoline Museums, and the other more modern, which depicts a scientific instrument exhibited at the Planetarium. The text associates the concept of the geographic stronghold of the company, which translates into "certainty" supporting beauty and culture. The campaign was planned between December 2012 and January 2013 in a number of newspapers, on interactive media stations and postcards created to turn to account the sponsorship directly in the museums.



An Ad was then presented alongside the Rome Capital Museums campaign, created at the time of participation in the IXth edition of **Movi&co**. The competition, presented in Venice during the International Film Festival, concluded on 13 December 2012 with the prize-giving ceremony at the Milan Triennial. The video created for Acea on the sponsoring of the Rome Capital Museums, entitled **Gesti** (Gestures), received the **Best Production and Creation Prize** (see the related box).

### ► **MOVI&CO 2012: "BEST PRODUCTION" GOES TO THE GISTI VIDEO CREATED FOR ACEA**

Acea has been a partner of Movi&Co for some years, a competition dedicated to aspiring young directors aged between 18 and 35. The videomakers taking part in the competition are required to flank the entrepreneurial business partners of the initiative, two for each company, working on the subject proposed by the company. The **IX edition of Movi&Co** entitled the competition **Guarda il Futuro** (Look to the future) inviting young directors and partner companies to reflect, via the lens of communication and audio-visual instrument, on how to reconceive the future in a sustainable key.

**Acea responded** to the invitation, **commissioning two topics linked to environmental and social responsibility:** support for civil society via **the promotion of art and culture** (Ad on the sponsorship of the Rome Capital Museums System) and **technological innovation for sustainable growth in the city** (Ad on smart grids). The jury appreciated both videos created for Acea and that dedicated to the **Rome Capital Museums System**, entitled **Gesti** (Gestures), won the **Best Production and Creation Prize**.

The winning Ad **placed in relation our daily gestures**, linked to the services provided by the company: water, light and gas, **and the art and culture contexts which Acea wished to promote**. Thus, the opening of a tap to an artistic fountain, the switching on of a household light to an illuminated corridor of a museum, were associated for example. The idea, expressed in various ways, gave visual and evocative force to the final pay off of the Ad: **Acea. We transform every one of your ordinary gestures into an extraordinary emotion**.

Likewise original was the creative idea conceived for the Ad on the Smart grids: images of "smart" life, characteristic of the future, revolve around an object from the past: a musical box.

Both the **videos are available** in the Communication section - Audio/Video Area - Movi&Co on the website [www.acea.it](http://www.acea.it).

**The Editorial Contents Unit**, within the External Affairs and Communication division, also continued in 2012 with the activities for updating the information on [www.ambientandoci.it](http://www.ambientandoci.it), the environment website **dedicated to schools**. Besides **the news updates** at local, national and international level, numerous **initiatives furthered by Acea** with regard to the **development of clean energy sources**, the **protection of water sources and environmental sustainability** have also been highlighted.

During the 2012 Rome Marathon, supported by Acea in its capacity as sponsor, the company furthered an **eco-sustainability initiative** providing a clear message for attention to the environment, and in fact decided to **creatively and originally recover and re-use non-woven fabric advertising banners**, produced for sporting events, by means of a project entitled **1 km of shopping bags** (see related box).

#### ROME MARATHON: ACEA, A KILOMETRE OF SHOPPING BAGS USING ADVERTISING BANNERS

**The advertising banners** created using non-woven fabric for the Rome Marathon, which Acea is title sponsor of, have a second life becoming **exclusive bags**. An original and intelligent way to **re-use the material which otherwise would be dispersed in the environment**.

Thus **Acea Energia**, who wished to **launch the initiative during the 18th edition of the Rome Marathon**, held on 18 March 2012, turned up with 1 km of shopping bags, thanks to the recovery of the banners from the previous edition of the sporting event, and made them available at its stands at the Marathon Village, disclosing an important message on attention to the environment.

Each shopping bag is unique and exclusive: the procedure in fact re-uses the material irrespective of the graphic aspect, thereby obtaining the creation of articles which are different. The bags - created in two models: a large one and a mini-bag - are complete with identification tags featuring the limited number and the reference event.

We have created 1 km of shopping bags – revealed Acea Energia’s Managing Director – and accordingly the waste of the materials created for the Marathon has decreased, with benefits in terms of a reduction in waste disposal costs but above all else in environmental terms. The objective is to repeat the venture in other contexts as well.

The events which involved universities, lower middle and high schools, and primary school pupils, included the 19<sup>th</sup> edition of the **School Volleyball Tournament– Acea Trophy**: the annual appointment, a point of reference for those who love this sport, saw **168 male and female teams** battle over a period of three months, involving a total of **around 3,000 youngsters**. The winner of the first prize of the Acea Trophy – a competition for the creation of a slogan on renewable energies - was a student in the last year of the scientific high school Morgagni, who proposed the slogan **Rinnova la tua vita, sostieni il sostenibile** (Renew your life, support sustainable). By contrast, the first edition of **Impariamo dall’acqua dedicated to water aspects** was a project which envisaged

the creation of a **cycle of lessons** which involved **20 schools** and **Acea Group employees and managers among the teaching staff**, having agreed to make their expertise available (see related box). In conclusion, the **Acqua Spreco Zero** initiative was continued, furthered by the Rome City Council Office for Educational and Scholastic Policies, organised by the Next Generation Act associations, in collaboration with Acea. **The project involved 280 youngsters** from 43 middle school classes in Rome, who, after having following an educational course on the subject of **savings water sources**, designed drawings on the subject, 11 of which received prizes and were selected for the communication campaign *Save the water, save the future* launched on the *Acqua Spreco Zero* website.

## IMPARIAMO DALL'ACQUA, WITH THE COLLABORATION OF ACEA

During 2012, the first edition of the *Impariamo dall'acqua* project was held, furthered and organised by **Associazione Museo Energia**, in collaboration with **Federutility** and **Acea**, and **with the support of Roma Tre University** and the **Associazione Nazionale Dirigenti e Alte Professionalità della Scuola (Anp)** as well as the **MIUR's (Ministry of Education, Universities and Research) Committee for the Development of Scientific and Technological Culture**. The initiative involved 20 schools from Rome and the province, envisaged a series of lessons given by experts, including Acea managers and employees, and the selection of the more than fifty drawings from among the many sent in by high school students, and their publication in the Energy School section of the website [www.museoenergia.it](http://www.museoenergia.it).

The aim of the project was to create an occasion for discussion among sector **experts, teaching staff and students**, so as to boost reflection on the **various aspects of water**. The water theme was in fact looked at in-depth from a historic, economic, social, environmental and cultural point of view, encouraging the implementation of informed conduct. A different way of teaching which actively involved the youngsters in the sustainable development of tomorrow's society.

Each year Acea allows a wide range of public - ranging from school children to sector operators - to **visit its plants** relying on the willingness and expertise of its staff: in 2012, **328 individuals were received**, from both Italy and overseas.

### Events and solidarity

The **economic value distributed to the community** in 2012 came to Euro 4.7 million<sup>67</sup>, down with respect to the Euro 5.6 million last year. Of this amount, the majority was set aside for sponsoring cultural, social and sporting events (around Euro 4 million). The amounts set aside for charitable donations to associations with social and not-profit making aims, amounted to roughly Euro 315 thousand.

**Furthermore, via "technical sponsorships" Acea offers its services** - such as the supply of electricity and water, public lighting measures - **during events** which see the large-scale participation of citizens, cultural and sporting in type, which animate the city benefiting residents and tourists alike. **2012 "Technical sponsorships"**, involved **an economic value** amounting to around **Euro 112,000**.

Acea supported or sponsored numerous initiatives in 2012, some of which have been recalled above. There were many events linked to **environmental aspects**, associated with the Group's activities, a number of important appointments such as the **Festival dell'Energia**, the **Forum Green Energy** and **MoTechEco**, addressing experts, and others more popular, aimed at raising the awareness of a wider public or youngsters, such as the *Green Movie Film Fest* or *Acqua Spreco Zero*.

With regard to **culture**, in 2012 Acea sponsored the **Rome Capital Museums System** and numerous other events, concerts, conferences and initiatives which during the Summer or in holiday periods involved the people of the city, and in conclusion **sport**, in the various events mainly participated in by youngsters, without forgetting the traditional City marathons, which by now see a very high attendance rate, and the sponsoring of nation basket ball and volley ball teams (see related boxes).

Each year the company makes **the lobby at the headquarters** in Rome available, so as to permit Associations involved in social work to organise **charitable events and funding raising**. During 2012, the following were accommodated:

- The ACLI – Acea Unit, for a charity sale aimed at raising funds in favour of Casa Betania, involved in activities supporting women suffering hardship and difficulties, held on 19 March 2012
- ROMAIL Onlus - the Italian Association for the fight against leukaemia, lymphoma and myeloma which supports scientific research and homecare - for the sale of Easter Eggs, on 21 March 2012, and for the sale of Poinsettias, on 6 December 2012, for the purpose of fund raising.

During the Christmas festivities, what is more, Acea wished to offer its contribution to the **Municipality of Finale Emilia**, located in the area seriously hit by the earthquake in May 2012, for the **construction of a multipurpose gym** (supply of electrical switchboards) in the New School Complex.

<sup>67</sup> This item also includes the costs incurred for "trade fairs and conventions" but not the "technical" sponsorships.

The main **events supported by Acea throughout 2012** – through sponsorships or donations – are illustrated in the boxes below, divided up according to the aim and explaining how the company participated.

## 2012: ACEA'S COMMITMENT TO YOUNGSTERS AND THE ENVIRONMENT

- sponsor of the 2012 edition of the **Festival dell'Energia**, the leading national event which brings together representatives from scientific, academic, institutional and economic circles with the aim of **developing debate on energy aspects**. The event was held in Perugia in June 2012 (ALLEA Srl)
- sponsor of the second edition of the **2012 Green Energy Forum**. The event, organised by ABI, was held at Palazzo Altieri in Rome during June 2012 and envisaged two days of **workshops, seminars and round tables dedicated to the subject of renewable energies and energy efficiency** (Abiservizi SpA)
- contribution towards the achievement of the **Scienza e società di domani... Il mondo che verrà** conference, organised in collaboration with Università degli Studi Roma Tre, which was held in Rome on 24 January 2012 (Centro Studi FxR)
- sponsor of the **first edition of the Green Movie Film Fest**, which was held in Rome in July 2012 at the Casa del Cinema. During the **film festival, aimed at raising public awareness of environmental matters**, not only were documentaries, short and long films shown, but encounters and debates on the subject were also organised (L'Aurora Srl)
- sponsor of **A corto d'ambiente**, a short film competition focusing on environmental matters, which was held during Lungo il Tevere Roma, one of the most popular events during Estate Romana, the Roman Summer festival (Overanta Srl)
- contribution towards **l'Ambiente si Nota - Festival degli strumenti musicali riciclati 2012**, whose first edition was held in November at the Auditorium Parco della Musica (Associazione Pentapolis)
- sponsor of **MoTechEco 2012**, the festival dedicated to new technologies for sustainable mobility and national and local plans for development of the same, held in Rome in May 2012 (Green Action Srl)
- sponsor of **Il fotovoltaico per Roma, Capitale della sostenibilità ambientale** conference, which was held in Rome in April 2012 (Green Action Srl)
- sponsor of **RE BOAT RACE**, the first Italian regatta of **boats made from recovered and recycled materials**, which was held in September 2012 on the EUR lake in Rome (ASD Sunrise 1)
- sponsor of **Movi&Co. 2012**, the competition which has the twofold aim of building a bridge between the creativity of the young competitors, aged between 18 and 35, and the reality of the world of employment, and offering companies the possibility to submit their image to the creative inspiration of young videomakers called to create Ads, videos or short films. (Expo & Average Communication Srl)
- sponsor of the **Concorso internazionale Centro/Periferia** for young artists, promoted by Federculture, whose theme was the drawing together of emerging situations in large towns and cities and peripheral situations, involving alienation and involvement. More than 500 young artists took part and a collective exhibition was arranged for the 28 finalists at Hadrian's temple in Rome, during June 2012
- sponsor of the 2012 edition of the **School Volley ball Tournament–Acea Trophy**, dedicated to **middle and high schools in Rome and the province** and organised by Fipav Lazio. The 19th edition of the tournament **saw the participation of 168 male and female teams** representing around 100 schools. The prize-giving ceremony for the Competitions associated with the tournament, with the awarding of scholarships to deserving students, was held at the end of May 2012 care of the Headquarters of Corriere dello Sport (Fipav Lazio)
- sponsor of the venture **Acqua spreco zero**, the **environmental education project dedicated to furthering water savings and informed use of the natural resource** which was held in February and May 2012 care of various Roman schools. The initiative is part of the various proposals of the **Chiare, fresche e dolci acque** project, furthered by the Rome City Council Agency for Educational and Scholastic Policies (Next Generation Act)
- sponsor of **Impariamo dall'acqua**, a cycle of lessons/debates regarding water issues aimed at high school students in Rome which also involved Acea staff, in the capacity of teachers (Associazione Museo Energia)
- sponsor of the **Rinnatural** game devised to further **the subject of eco-sustainability with primary school children** and specifically those in the fifth year. It is a board game on energy saving and renewable energy, focusing on the four natural environments from which the resources originate: the Earth, the Sun, the Air and the Water (360 - Tresezero Srl)

## 2012: ACEA'S COMMITMENT TO CULTURE AND SPORT

- sponsor of the **Rome Capital Museums System** comprising a series of museums and archaeological sites in the Capital, including the Capitoline Museums, the Museo della Civiltà Romana, the Mercati di Traiano and the Museo dei Fori Imperiali; the Municipal Modern Art Gallery and many others. Accordingly, Acea has supported ventures accomplished during 2012 in the various sites which citizens and visitors make use of (Zètema Progetto Cultura Srl)
- sponsor of the **Lezioni di Musica 2012** cycle, organised by the Accademia Nazionale di Santa Cecilia and the Fondazione Musica per Roma, which was held in May at the Auditorium Parco della Musica di Roma (Fondazione Musica per Roma)
- sponsor of the event **Romanticamente, il Festival dell'amore raccontato**, which was held in February 2012 care of the Auditorium Parco della Musica di Roma (Euro Forum Srl)
- sponsor for the **2012 season** of the programme of events **of the Auditorium Conciliazione in Rome** (I Borghi Srl)
- sponsor of **Centrale Live – Roma – Foro Italico** for the Summer events- theatre, music, comedy – which were held in June and July 2012 at the Foro Italico di Roma (Amedea Srl)
- sponsor-partner of the 2012 edition of the **Roman Carnival** which envisaged **architectural projections** on the facade of Porta del Popolo and the fountain in Piazza del Popolo, between 11 and 21 February 2012 (Zètema Progetto Cultura Srl)
- sponsor of the event **Roma si mette in luce 2012**, which involved the city, with particular light and sound installations, shows and artistic performances between November 2012 and January 2013 (Laura Rossi International)
- sponsor of **Gay Village 2012**, the event was held in Rome at the Parco del Ninfeo in the EUR district, between June and September, involving numerous initiatives, from cinema, theatre, sport to concerts (Artmediamix Srl)
- sponsor of the **Roma Città Natale** events which were held between 8 December 2012 and 9 January 2013 and of the **Grande Concerto di Capodanno in Rome**. The New Year's Eve show, organised in Via dei Fori Imperiali, featured great names from Italian light music and was attended by around 200,000 people. (Zètema Progetto Cultura Srl)
- sponsor of the **All'Ombra del Colosseo 2012** manifestation, comedy shows which were staged at the Parco del Celio between June and September 2012 as part of the Estate Romana festival (ACSD Castellum)
- sponsor of the **2011-2012 sporting season of M. Roma Volley**, the A1 division male volley ball team (M. Roma Volley SpA)
- main sponsor of the 2012 edition of the traditional sporting manifestation **Maratona della città di Roma – Trofeo Acea**, the most highly-attended athletic event in Italy, which was held on 18 March with the starting line in Via dei Fori Imperiali (Atielle Roma Srl) and major sponsor of the **Rome-Ostia Mini Marathon** which was held on 26 February 2012 (Roma Ostia Srl)
- sponsor of the **Del Monte Coppa Italia A1 Final Four volley ball event** which was played in February 2012 at the Palalottomatica in Rome (Volley events 2020)
- main sponsor and title sponsor, for the 2011-2012 season, of the **Virtus Roma basketball team**, now **Acea Roma** (Pallacanestro Virtus srl)
- sponsor of the **2012 Mille Miglia**, the vintage car race which each year, along the Brescia-Rome-Brescia stretch passing through 56 Italian municipalities, sees the best models in automobile history race. During 2012, the event was held between 16 and 20 May (Gruppo Meet)
- sponsor of the **Granfondo 2012 di Roma**, cycling event for professionals and amateurs which saw **more than 4,000 Italian and foreign participants**. The race was held on 14 February 2012 along 2 different technical routes, 92 and 148 km, starting off from the city centre and arriving at the Castelli Romani (Bicitaly Srl)
- sponsor of the **Gran Premio della Liberazione**, the **cycling race** which was held in Rome on 25 April 2012 (Velo Club Primavera Ciclistica)
- sponsor of **We Run Rome 2012**, a competitive sporting event put together to promote light athletics (Fidal Lazio)

## 2012: ACEA'S COMMITMENT TO SOLIDARITY

- contribution towards **Tutti insieme 2012**. The initiative envisaged a special edition of the show *Attenti a quei due* staged in Italian theatres by Luca Barbarossa and Neri Marcorè for the purpose of achieving a new solidarity project in the **Campus Produttivo della Legalità e Solidarietà**, an area of 27 hectares, close to the Capital. The contribution in particular concerned the construction of photovoltaic greenhouses installed by Acea intended for biological cultivation and the creation of a "Cittadella dello Sport" (Fondazione Parco della Mistica Onlus)
- contribution for the 2012 information and prevention social campaign entitled **Il capolavoro sei tu** within the sphere of the **Uniti per vincere i disturbi del comportamento alimentare** project (Donna Donna Onlus)
- contribution for supporting the **Calciosociale** initiative. The project mainly intends to involve youngsters resident in the area of Corviale, undergoing social hardship and the non-profit bodies and associations which carry out their activities in the area. The aim is to **use the sports centre** as a place capable of contributing towards the prevention of criminal and social deviance and **provide a suitable educational proposal** (Calcio sociale SSD)
- sponsor of **Canto di Natale. Un messaggio d'amore**, organised at the Auditorium Parco della Musica, on 19 December 2012. The proceeds from the evening, which saw the participation of various Italian light music artists and celebrities from the world of show business, were assigned to the **Ospedale Pediatrico Bambino Gesù in Rome** (Associazione Comunicazione Reale)
- sponsor of the **Gran Galà per la Croce Rossa Italiana**. A concert of the Conductor Uto Ughi who played together with the Filarmonici di Roma at the Auditorium Parco della Musica di Roma, on 18 December 2012; the proceeds were assigned to support the initiatives of the Italian Red Cross for youngsters in conditions of economic and social hardship
- contribution towards the **Leggere/leggeri** venture, a literature programme, dedicated to children and parents of different nationalities, which was held at the Teatrodue every Sunday morning in March and April 2012 (Cooperativa sociale Abitus)
- contribution towards the **Sognando Itaca - regata per la vita** initiative, a trip on a sailing boat with a crew of professional skippers, patients under rehabilitation, doctors, nurses and psychologists which took place on 21 June 2012, for the purpose of spreading sailing therapy as a psychological rehabilitation and improvement of the quality of life method for haematological sufferers (AIL)
- contribution for the **construction of a multipurpose gym** (supply of electrical switchboards) in the New School Complex of the **Municipality of Finale Emilia**, seriously hit by the earthquake in May 2012 (Municipality of Finale Emilia)
- contribution for the holding of a **Charity Dinner in favour of the population of Haiti**, seriously affected by the earthquake in 2010. The fundraising evening was held on 17 November at the Teatro 10 at Cinecittà (J/P Haitian Relief Organization)

Also **outside the Capital**, in the area where the activities of certain Group operating companies exist, Acea sponsored the concert of the group Negrita care of the Mandela Forum in Florence in January 2012; it was the title sponsor for the 2012 season of the female hockey team at the Libertas San Saba di Prato sports centre; it also contributed towards the achievement of a project, **Differenzio anche io - 2012**, involving information, education and awareness raising on subjects of environmental education and the correct disposal and recovery of waste.

The project mainly addresses youngsters in year IV and V of the primary schools in the Municipality of Aprilia, and also involves families, teachers and citizens. In conclusion, Acea contributed towards the realisation of the book **10 anni, la nostra storia**, published for the ten-year anniversary of the formation of Acquedotto del Fiora SpA. The book is full of iconographic materials and narrates the main stages of the company, also by means of the direct testimony of the employees.

# Suppliers

## Consolidated external costs

In 2012, the **consolidated external costs** of the Group amounted to around **Euro 2.63 billion**, up slightly with respect to the Euro 2.60 billion in 2011 (+1.4%). The most significant charges, amounting to around Euro 2.08 billion (Euro 2.03 billion in 2011), are those of the **energy and the gas sector**. These are followed by **service costs**, totalling Euro 333.1 million, essentially unchanged. During the year in question, costs for **materials** fell, from Euro 104 million to Euro 62.4 million, due to the minor requirement linked to photovoltaic panels. By contrast, **operating expenses** increased, from Euro 36 million to Euro 51.6 million, mainly for two reasons: the confirmation by the Council of State of the fine inflicted by the Antitrust Authority on Acea and Suez Environment, for the restrictive agreement on competition in the bid for acquiring the water company Publiacqua, and the higher IMU (municipal property tax) payments.

The rest of the section by contrast illustrates the **procurement of goods, services and work**, which in 2012 had an overall cost of **Euro 518 million**, handled by the corporate Purchasing and Logistics Division, for the various Group companies (see *2012 Boundaries* of the related section).

## Purchasing policies

The **Purchasing and Logistics Division**, within the Parent Company, has the mission to «ensure the **definition of the policies and guidelines**, as well as **the centralised management, of the supplies of goods, services and work** for the Group». Each year the Purchasing and Logistics Division seeks to improve the efficiency of the supply process by means of exploiting the technical skills of the buyers and focusing the process on the handling of the various commodities' categories. The **handling of the Qualification systems** for the suppliers **is by contrast under the responsibility of the Safety and Protection Division** and this guarantees the total independence of the two activities.

Operational supervision is ensured **by the Planning, Control and Marketing Unit for purchases**, which proposes purchasing strategies in line with the Group's objectives, guarantees the analysis of the needs of the Companies/Divisions and the drafting of the Group procurement plan, and monitors the evolution of the market of suppliers, the price trend and technological innovations.

Handling of supplies took place in complete observance of the reference legislative framework<sup>70</sup>; resorting to the calling of tenders as the predominant method of identifying the supplier, characterising the procedures for awarding work with the utmost transparency and ensuring the centralised handling of the tender contracts.

With regard to the **Logistics Unit**, during 2012 the foundations were laid for **bringing the management of the Group's central warehouse back under direct control**, following the expiry of the contract with the logistics operator which managed the warehouse from 1 January 2007 until 31 December 2012. The **materials transport service** of the individual companies **has also been centralised**, via the calling of a tender and the identification of a reference haulage contractor whose rates will make it possible to achieve **a saving of around 40%** in costs. In conclusion, the most important logistics activities (operational handling of the warehouses, execution of the inventories, handling of material returns) have been proceduralised, for the purpose of harmonising the execution between the various companies.

In April 2012, **Acea adopted and divulged the new edition of the Group Ethical Code** which, assimilating the principles, has outdated the previous value codes, including the *Tender Ethics Code* (adopted in 2003). The current version of the Ethical Code<sup>71</sup>, dedicates **Article 16, sections 1-7 to the dealings between Acea and the suppliers** and confirms the great attention to this subject, guiding the conduct of the contractor and the contracting and sub-contracting companies, according to the principles of correctness, transparency and protection

<sup>70</sup> Italian Legislative Decree No. 163 dated 12 April 2006 – Code of public contracts relating to work, services and supplies implementing EU directives 2004/17/CE and 2004/18/CE.

<sup>71</sup> The new version of the Group Ethical Code (2012) - the previous one was adopted in 2004 - is available on-line on the company website (Regulations and values section).

of competition. Furthermore, the Code confirms, being the **indispensable condition for taking part in the procedures for entrusting the works, goods and services** under penalty of exclusion of the same, **the signing by way of acceptance of the Group's Ethical**

**Code** and envisages, in the event of violations of the main contents of the Code, subject to verification of the same, **the exclusion from the tender or cancellation of the adjudication** (Article 16, sections 6 and 7).

#### THE GROUP ETHICAL CODE ( 2012 EDITION): SAFEGUARDING OF THE ETHICAL ASPECTS IN SUPPLIES

*Acea Group Ethical Code, Article 16.2:*

«Within the sphere of the procurement activities, Acea undertakes to further observance of the health and safety of workers conditions, attention to the quality of the goods and services, the respect of the environment and the pursuit of energy savings, in compliance with the principles laid down in this Code and by the law. In the contracts with supplier in countries at risk, defined as such by the recognised associations, contractual clauses are introduced which envisage: self-certification by the supplier that they comply with specific social obligations (for example: measures which ensure workers the respect of their fundamental rights, the principles of equal and non-discriminatory treatment, protection of child labour); the possibility of availing oneself of control action care of the production units or operating premises of the Supplier Company, so as to check satisfaction of these requirements».

The procedures regarding purchases pursue the aim of **concentrating the planning of procurement** within the holding company along with the procedures for the selection of the suppliers, making the process more effective and efficient.

In December 2012, the project relating to the **technical adjustments to the SAP management system** was completed, for the works, goods and services tenders, necessary for **ensuring a more effective handling of the** procurement process. The technological evolution of the SAP management system, in compliance with the current purchasing procedure, has made it possible to introduce additional elements for the control and monitoring of the purchasing process.

Furthermore, in 2012 the **project for the adaptation of the Pleiade platform was completed** (<https://vendor.i-faber.com/acea/>) for the handling of the on-line tenders and the related support services. The main objectives of the project concerned the evolution of the performances of the e-sourcing platform in compliance with the purchasing procedures, the adjudication criteria envisaged by legislation and the reporting requested. The **consolidated purchasing portal** was also active in 2012, for the handling of the **communal contracts**, such as travel and business trips, stationery, printers, toner and other consumables.



## The supply of goods, services and work

### THE BOUNDARIES

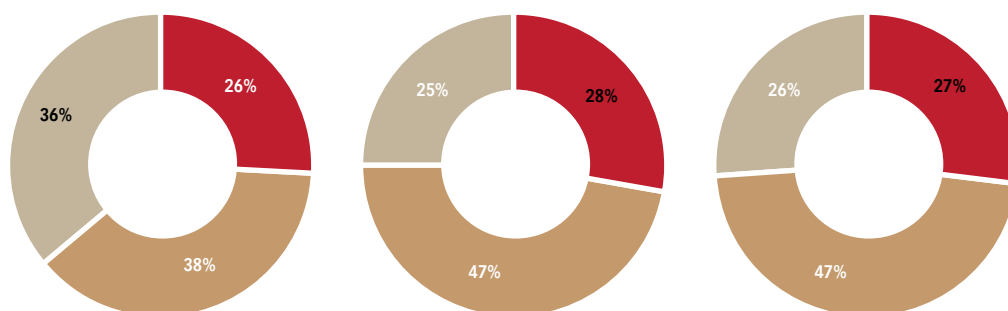
The information illustrated in this section concerns the following Group companies: Acea SpA, Acea Distribuzione, Acea Reti e Servizi Energetici, Ecogena, Acea Illuminazione Pubblica, Acea Ato 2, LaboratoRI, Acea Ato 5, Acea Gori Servizi, Acea Ricerca e Perdite, Sarnese Vesuviano, Crea Gestioni, Acea8cento, A.R.I.A. (Acea Risorse e Impianti per l'Ambiente - within which the companies EALL, Terni En.A, Enercombustibili, and Ergo Ena were merged via incorporation), SAO and part of the procurement relating to Acea Energia holding, Acea Energia and Acea Produzione.

Tenders for the supply of **goods**, the provision of **services** and the execution of **work** were handled, at centralised level, for the companies indicated in the *2012 Boundaries*, on a consistent basis with last year.

**The overall economic value of the contracts awarded during the year**, amounting to around

**Euro 518 million<sup>72</sup>** was **up 7.5%** with respect to the roughly Euro 482 million in 2011, in particular due to the **increase in labour costs** (+13.2%) and the **increase in the item "services"** (+7.1%) while the rise in the amount contracted for **goods** was more contained (+ 3.5%) (see chart No. 23).

**CHART NO. 23 – VALUE OF TENDER CONTRACTS AND INCIDENCE OF THE MAIN TYPES ON THE TOTAL (2010 -2012)**



(millions of Euro)	2010	2011	2012
goods	139	137	141
services	197	225	241
work	186	120	136
<b>total</b>	<b>522</b>	<b>482</b>	<b>518</b>

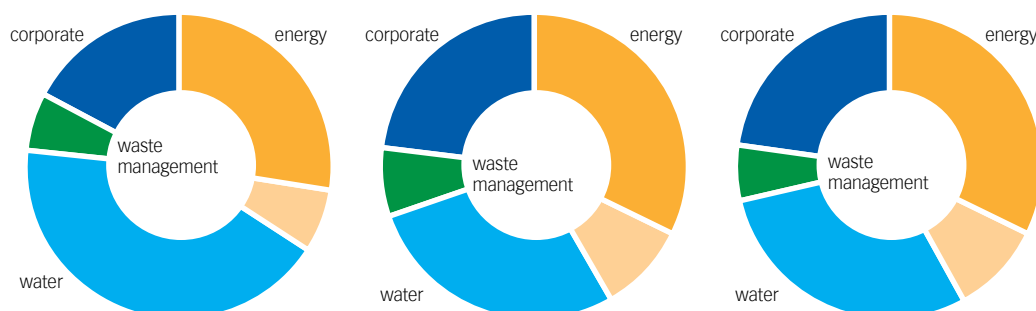
NB: the values in the table have been rounded off

If the value of the contracts is divided up between the four business segments: **energy** (networks and market), **water, environment** (waste-to-energy and waste management services) and **corporate** and the **trend of the percentage incidence on the total** is observed

(see chart No. 24), **essential stability** in the weight of the various areas can be noted between 2012 and 2011. In absolute values, by contrast, the changes with respect to last year are more significant (also see the section *Goods and Services* and the section *Work*).

<sup>72</sup> The amount refers to the contracts awarded during the year, not registering the distinction between operation and investment, annual and multi-year contracts. Purchases of commodities are excluded.

**CHART NO. 24 – BREAKDOWN OF THE COSTS FOR SUPPLIES (GOODS, SERVICES, WORK) BY BUSINESS SEGMENT (2010-2012)**



(%)	2010	2011	2012
energy (*) of which:	34.2	41.8	42.0
● energy networks	27.6	32.4	32.3
● generation and sales of energy	6.6	9.4	9.7
● water (**)	42.5	28.0	29.6
● waste management (***)	6.2	7.0	5.8
● corporate (****)	17.1	23.0	22.6

(\*) the **energy networks** segment, in the **energy** area, includes the companies operating in distribution, public lighting and energy services with added value: Acea Distribuzione SpA, Acea Reti e Servizi Energetici SpA, Ecogena, and Acea Illuminazione Pubblica. With regard to the **generation and sale of energy** the companies of the energy area are included, involved in the production and sale of energy to the free and protected markets (Acea Energia holding, Acea Energia, Acea Produzione) whose procurement is for a limited portion handled by Acea SpA's Purchasing and Logistics Division.

(\*\*) the **water** segment includes the companies: Acea Ato 2, Acea Ato 5, LaboratoRI; Acea Gori Servizi, Acea Ricerca e Perdite, Sarnese Vesuviano and Crea Gestioni.

(\*\*\*) the **waste management** segment includes the companies active in the waste-to-energy sector and the waste management services of A.R.I.A. (within which the companies EALL, Terni En.A, Enercombustibili and Ergo Ena were merged via incorporation), SAO.

(\*\*\*\*) the **corporate** area, within the sphere of the Group services, includes the companies Acea SpA and Acea8cento.

For work, goods and service contracts which fall within the **special sectors of water and energy**, the procedures fulfilled are compliant with current legislation (section III of the Consolidated Tender Code - Italian Legislative Decree No. 163/2006); with regard to contracts awarded which do not fall within the special sectors, **public tender procedures** are announced in compliance with applicable sector legislation. With regard to contracts involving **amounts under the EU threshold**, Acea applies **In-house Regulations** in compliance with the principles established by the EC Treaty safeguarding competition (also see sub-sections *Goods and Services; Work*).

The operators can directly access the information, forms and **Qualification systems** on the company **website (www.acea.it) Suppliers section**. A **dedicated IT portal - Pleiade** - is also operative, making it possible to **handle tenders on-line**, reproducing the operational procedures

for traditional tenders (checking of the accompanying documentation, acknowledgment of the possession of the requirements, opening of the economic bids and display of the classification). The two portals (qualification systems and accomplishment of on-line tenders), until 2011 integrated, were separated in 2012 from both an operating and management standpoint, in relation to the organisational development which led to a structural and operational distinction between the two activities.

The companies directly access the tenders, published on-line, without any charge.

**During 2012, a total of<sup>73</sup> 821 tenders were announced** for the procurement of goods, services and work by means of publication **on the Pleiade portal; 16 tenders were awarded for the entrusting of work, called by means of European announcement, and 57 tenders for the acquisition of goods and services** with amounts above the EU threshold.

73 Including the tenders carried out by the companies in the energy area (generation and sales): Acea Energia holding, Acea Produzione and Acea Energia.

## Goods and services

The purchase of **goods and services** in 2012 had an overall economic value of **Euro 382.4 million**, disclosing **an increase of 5.7%** with respect to the Euro 361.6 million in 2011, while the percentage of this item with regard to total procurement remained steady (74%). In the **percentage breakdown** of the value of the goods and services procured **for the macro-areas**, there was a **decrease in the percentage attributable to the energy area** – networks, generation and sales – which weighs in for around 44.2% on the total in 2012, compared with 47.3% in 2011, and **a slight drop in the percentage for the water area** (from 19.8% in 2011 to 18.1% in 2012), **while** with respect to the previous year the **percentage attributable to the waste management area** – waste to energy and environmental services - (from 3.8% in 2011 to 7.3% in 2012) and the **corporate area** (from 29% in 2011 to 30.4% in 2012) increased. In **absolute values, the costs** incurred for the procurement of goods and services **decreased** for the **networks segment** (from around 127 million in 2011 to roughly 120 million in 2012) while **they rose** for the **generation and sales segment** (from Euro 44 million in 2011 to Euro 48 million in 2012), **for the waste management area** (from around 14 million in 2011 to around 28 million in 2012) and **for the corporate area** (from 105 million in 2011 to 116 million in 2012).

With regard to **supplies of goods and services** for an amount **less than the EU threshold** (equating to Euro 400,000<sup>74</sup>) Acea applies the **In-house Regulations**<sup>75</sup> which envisage two tender procedures:

- **ordinary procedure**: on-line tenders between companies enrolled in the Qualification Systems;
- **extraordinary procedure**: tenders announced by means of single offer request.

For the purchase of goods and services, during 2012 the **Purchasing and Logistics Division** of the parent company followed the **procedure for the requests** issued by the Group companies/Units, processing **4,072 Purchase Orders** (around **31% more** than the 3,099 POs handled in 2011). Of these, around 77% involved contained amounts under Euro 50,000, while the remaining 23%, involving amounts over Euro 50,000, absorbed 90% of the total value of the goods and services procured<sup>76</sup>.

Chart No. 25 shows the **geographic distribution**, over the last three years, **of the amounts spent** for the procurement of **goods and services**. With respect to the previous year, in 2012 **the percentage of the value of purchases from North and Central Italy** rose while the amount contracted abroad and in South Italy fell.

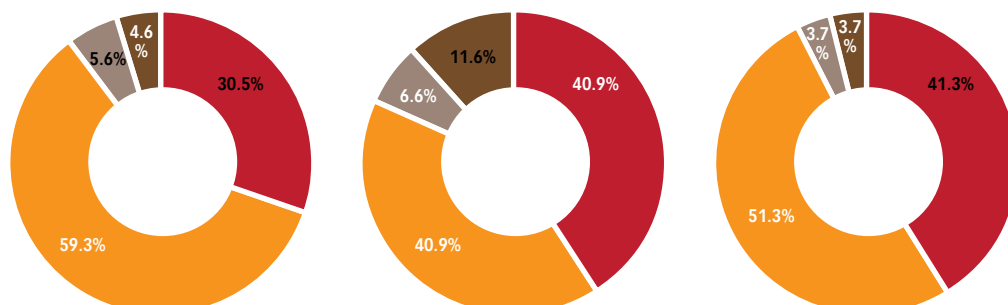
In detail, during 2012, out of a total of **1,969 suppliers**, roughly 65%, equating to 1,289 suppliers, were concentrated in **“central Italy”** and **absorbed around 51% of the total value of the purchases of goods and services**; in this grouping, **Lazio** represents **1,049 suppliers** and **Euro 152 million** assigned for purchases, equating to **around 40% of the total**. This figure is consistent with Acea’s traditional geographic presence, operative in Rome for more than a century and, in the particularly delicate economic predicament of the country, **confirms the significant positive repercussions on local satellite activities**.

<sup>74</sup> As from 1 January 2012, a general raising of the EU thresholds as per the EU Directive on tenders was envisaged, as last amended in 2011.

<sup>75</sup> The In-house Regulations for supplies of goods and services in special sectors “below the threshold” were adopted in March 2008 pursuant to Italian Legislative Decree No. 163/2006.

<sup>76</sup> Equating to Euro 382.4 million.

**CHART NO. 25 – GEOGRAPHIC DISTRIBUTION OF THE SUPPLIERS AND THE AMOUNTS FOR THE PROCUREMENT OF GOODS AND SERVICES, IN ITALY AND ABROAD (2010-2012)**



(millions of Euro)	2010	2011	2012
North Italy	92	148	158
Central Italy	179	148	196
South Italy and Islands	17	24	14
abroad	14	42	14
<b>total</b>	<b>302</b>	<b>362</b>	<b>382</b>

NB: the 2010 figure did not include the companies of the JV with Electrabel.

The **top 10 companies which supply goods and services for 2012** were awarded around **23%** (equating to around Euro 88.4 million) of the total value spent for such procurement.

**TABLE NO. 45 - 2012 TOP TEN SUPPLIERS OF GOODS AND SERVICES TO THE GROUP AND PERCENTAGE OF TOTAL (2012)**

suppliers	%	% accumulated
ASSICURAZIONI GENERALI SPA	8.17	8.17
ENGINEERING - INGEGNERIA	3.10	11.27
PRYSMIAN CAVI E SISTEMI ITALIA SRL	1.64	12.91
SUN EARTH SOLAR POWER CO. LTD	1.60	14.51
NEXANS ITALIA SPA SOCIO UNICO	1.56	16.07
CITELUM ACEA NAPOLI	1.54	17.61
ENI SPA	1.43	19.04
ATI CENTRO RISORSE S.R.L.	1.40	20.44
PIRAMIDE SERVIZI SRL	1.35	21.79
E-CARE SPA	1.32	23.11

## Work tenders

Expenditure for **work contracted out** amounting to around **Euro 135.7 million** in 2012, representing around 26% of the total cost for purchases, **rose 13.2%** with respect to the Euro 119.9 million intended for this item in 2011.

In the distribution percentage between the macro-areas, one can observe that the **water area** has **around 62%** of the total cost for the entrusting of work (in 2011 it was 52%), and **this corresponds to an increase in the amount intended for this item also in absolute terms** (from around Euro 63 million used in 2011 to over 84 million in 2012). This is followed by the **energy area** - networks, generation, sales – which absorbs **35.6% of the cost of work** (the percentage was 25.4% in 2011), fundamentally in relation to the increase in the charges for work in the **networks segment** (from roughly Euro 29 million in 2011 to around 46 million in 2012). In the **waste management** area (waste-to-energy and environmental services), these costs **decreased considerably** (from 20 million last year to about 2 million in 2012) and the percentage fell to **1.7%** compared with 16.9% in 2011, lastly also in the **corporate** area (Group services) **costs for work fell** (from around 6 million to roughly 1 million in the year under review), with a percentage of the total which passed from 5.2% last year to **less than 1%** in 2012.

During 2012, **98%** of the amounts dedicated to the procurement of work **was entrusted by means of the tender procedure.**

With regard to the amounts **under the EU threshold** (amounting to Euro 5 million<sup>77</sup>) the **In-house regulations**<sup>78</sup> envisage **two procedures**:

- **ordinary**: on-line tenders between companies enrolled in the Qualification Systems;
- **extraordinary**: this is used for work not envisaged in the Qualification Systems. The tenders are announced by means of a single call which, case by case, specifies the criteria for the identification of the anomaly threshold.

Tenders called according to the ordinary procedure are published on-line on the dedicated portal which can be accessed from the Acea website. Furthermore, the tender calls are published in the Official Gazette and in daily newspapers.

The procedures for awarding work during the year came to 219, of these 112 were extensions<sup>79</sup>, 19 direct, 73 tenders without call and 16 tenders with call.

**The top ten suppliers of work in 2012** were awarded more than **32%** (around Euro 43,7 million) of the total value allocated to this procurement item.

**TABLE NO. 46 - 2012 TOP TEN SUPPLIERS OF WORK TO THE GROUP AND PERCENTAGE OF TOTAL (2012)**

suppliers	%	% accumulated
EDILALTA Srl under JV with IMPRESA GIANBATTISTA CELLETTI Srl	5.1	5.1
G.T.A. Srl under JV with SIBA SpA and CICCHETTI REMO E FIGLIO Srl	3.7	8.8
DE.NE.DA. Srl	3.4	12.2
C.E.B.A.T. Srl	3.4	15.6
COREL Srl E	3.0	18.6
FAVETTA Srl	3.0	21.6
Consorzio Imprese Riunite	2.8	24.4
CICCHETTI REMO E FIGLIO Srl	2.6	27.0
CONSORZIO STABILE RESEARCH	2.6	29.6
R.D.R. Srl in ATI con TECNOCOSTRUZIONI Srl	2.5	32.1

<sup>77</sup> As from 1 January 2012, a general raising of the the EU thresholds as per the EU Directive on tenders was envisaged, as last amended in 2011.

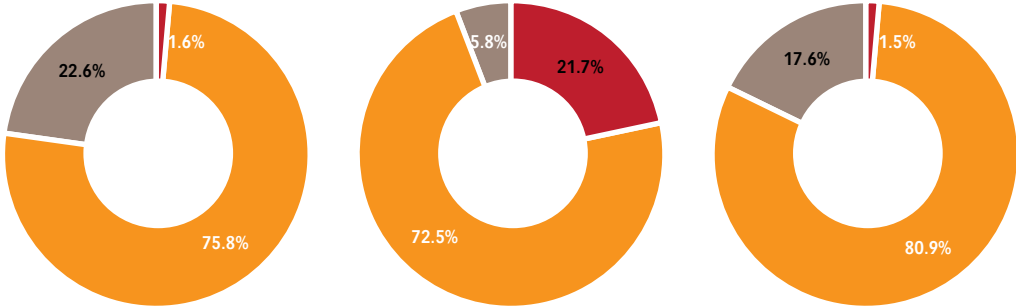
<sup>78</sup> The In-house Regulations for work of special sectors "below the threshold" pursuant to Article 238.7 of Italian Legislative Decree No. 163/2006, were adopted within Acea in August 2006.

<sup>79</sup> "Extensions" are understood to be extensions of the original amount of the contract which come about in the event of renewal or variation opinion.

Chart No. 26 illustrates the **geographic distribution of the amounts for work** contracted out in the last three years. The trend discloses inconsistency between the two macro-areas of the country "north" and "south and the islands", and in particular, between 2012 and 2011, the reduction in the value of work awarded in north Italy and the increase in the south and islands, while in **central Italy**, the area in which the activities of

the operating companies are mainly carried out, over the entire three-year period the greatest portion of the total value of work contracted out is concentrated: **80.9% in 2012**, and in particular **in Lazio**, which absorbs **around 78.6%** of the value of the work awarded, equating to **Euro 106.9 million**, with 102 supplier companies out of a total of 129 suppliers.

**CHART NO. 26 – GEOGRAPHIC DISTRIBUTION OF THE AMOUNTS FOR WORK CONTRACTED OUT (2010-2012)**



(millions of Euro)	2010	2011	2012
North Italy	3	26	2
Central Italy	141	87	110
South Italy and Islands	42	7	24
<b>total</b>	<b>186</b>	<b>120</b>	<b>136</b>

**Supplier assessment**

**Qualification Systems** are active within Acea for the suppliers of work, goods and services; these are regularly up-dated. Since September 2011, the task of handling and co-ordinating the Supplier Qualification and Rating process for the Acea Group has been assigned to the **Safety and Protection Division**. This organisational choice was based on the desire to identify a **neutral** and **autonomous** party with respect to the stakeholders who usually have dealings with the supplier, in other words the Purchasing Division, required to handle the adjudication procedures at the time of selecting the best bidder, and the operating companies, who are entrusted with the handling of the tender execution stage.

The Safety and Protection Division is also assigned the management of the company **quality** and **safety** processes. Within the sphere of the Division, steps have been taken to establish the **Supplier Qualification and**

**Rating Unit**, which, in observance of the principles of maximum competition and equal opportunities, **sees to the establishment of qualification Systems** of European importance - pursuant to Article 232 of Italian Legislative Decree No. 163/2006 and subsequent amendments and additions - and the **Supplier Register** for tenders under the EU threshold, **co-ordinating the interdivisional groups for the drafting of the qualification requirements** and drawing up the related **Qualification regulations**.

The **Safety and Protection Division** is also entrusted with guiding the activities of the **Qualification Committee**, as well as the handling of the communications to suppliers of the rules regarding **admission, rejection or suspension from the Registers**. In conclusion, the Division co-ordinates the Group Interdivisional activities for the **definition of the rating model** and has the task of handling and **maintaining the rating disclosure system**.

As of 31 December 2012, in accordance with the **new**

**qualification procedure** - which envisages the **activation of Qualification systems/Supplier registers for all the commodities groups existing - 228 commodities groups were active** out of a total of 314, of which **82 by means of publication of Qualification systems of European importance** and **146** due to tenders for amounts lower than the EU threshold, **by means of publication of specific Supplier register regulations - tenders** under the EU thresholds. The percentage of commodities groups active therefore rose from 7.9% in 2011 - when there were 25 groups active - to 72%.

In detail, the Qualification systems of European importance have been established for almost all the commodity groups for **works**, as well as for **strategic supplies and services, or those particularly critical** due to expenditure volumes, repetitiveness over time or **importance of the goods and/or services for the purposes of safety and/or protection of the environment**.

**The companies** which intend to qualify, **input their qualification application on-line**, at any time during the period of applicability of the respective Regulations, for the commodity groups of interest, accessing the **Vendor management** portal directly from the Acea institutional website ([www.acea.it](http://www.acea.it), Suppliers section).

In order to **enrol in the Registers** set up in accordance with the Regulations for amounts under the EU threshold, possession of **requisites of good moral standing**<sup>78</sup> and **requisites of commodity consistency** with respect to the commodity group for which enrolment is requested in the related List, are required.

In order to obtain enrolment **in the Qualification system of European importance**, the possession of **standard requisites** - including the requisites of good moral standing envisaged by sector legislation - and **specific requisites**, studied for each individual commodity group, is required. The latter are **defined by an Interdivisional Working Group**, made up of representatives from the Safety and Protection, Purchasing and Logistics, Administration, Finance and Audit divisions and the appropriate operating Units, according to the type of commodities group and the characteristics of the procurement in question.

The **classification of the requisites** is structured on

the basis of the following type of criteria:

- **technical, environmental and safety** reliability;
- **commercial** reliability;
- **financial and social security contribution** reliability;
- **assessment of the counterpart risk** (in accordance with the control principles envisaged by the Organisation, Management and Control Model pursuant to Italian Legislative Decree No. 231/01).

The **requisites of technical, environmental and safety reliability** - which are the most important in this venue - include the following standard requisites:

- Certification of the company Quality Management System issued in compliance with the ISO 9001:2008 standards (binding requisite for certain commodity groups), or QES qualification Check lists (for uncertified suppliers);
- possible presence of accreditations/qualifications care of third parties in the last 5 years;
- inexistence of serious violations, duly ascertained, pertaining to the observance of the safety provisions and any other obligation deriving from the work relationships in the last 5 years;
- the presence of a system for the assessment, selection and supervision of the sub-contractors/sub-suppliers, with particular reference to checking the technical-professional suitability of the same.

By way of example, **for the "Printing" commodity group** (supply of printed materials and forms) **FSC "Forest Stewardship Council" certification has been identified among the specific requirements**; this is the international certification system which guarantees that the raw material used for creating a product in wood or paper originates from forests where environmental, social and economic standards are observed.

For the purposes of admission to the EU qualification Systems, the willingness to undergo a possible check at the administrative headquarters **of the veracity and suitability of the documentation is also required**; as well as **checking at the operating premises** or product warehouses (e.g. safety, quality, production processes, etc.). In conclusion, it is recalled that at the time of the individual adjudication procedures, the possibility of including additional requisites with respect to those envisaged by the Qualification system is provided for, on the basis of the amount and importance of the contract.

<sup>78</sup> Pursuant to Article 38 of Italian Legislative Decree No. 163/2006 and subsequent amendments and additions. Two typical elements of the moral requirements established by legislation are particularly important for the purpose of protecting the workers, in other words the payment of duties, taxes and social security contributions for employees confirmed by the DURC - Documento Unico di Regolarità Contributiva - Insurance Contribution Payment Certificate) and compliance with laws on safety and any other obligation concerning employer-employee relations. Any irregularity regarding the requirements mentioned means automatic exclusion from the tender procedure.

As of **31 December 2012, 793 requests for enrolment** in the **Qualification systems and the Registers active within Acea** had been approved, for a total of **448 economic operators**.

In detail, the economic operators are broken down as follows<sup>79</sup>:

- 156 operators enrolled in the **Water works Qualification system**;
- 55 operators enrolled in the **Energy works Qualification system**;
- 15 operators enrolled in the **Qualification systems for Water and Civil Works**;
- 74 operators enrolled in the **Qualification systems for Goods and Services**;
- 100 operators enrolled in the **Registers of professionals**;
- 48 operators enrolled in the **Suppliers Register Regulations - tenders under the EU threshold**.

During 2012, the Safety and Protection Division **launched the implementation of a Vendor Rating system** which, according to an approach **integrated with the Qualification systems** set up, **populates the input data of said systems** via a feedback process. In this connection, **a rating model has been put together to be applied** to the commodity groups of particular interest, and in the first place to the Registers established for the types falling under water works and electrical works, **which is based** on the assignment of an **“entry rating” score** (so-called “E.R.”) and an **“in**

**situ rating” score** (so-called “I.R.”); as from June 2012, **the QES** (Quality - Environment and Safety) **inspections commenced**, which, following a check based in 117 requisites and an assessment process, process a score which classified the supplier in one of the 5 entry rating brackets (see related box). The **QES inspections** carried out as at 31 December 2012 numbered 30: 16 on suppliers enrolled in the water works register; 9 on suppliers enrolled in the electrical works register; 5 on the suppliers enrolled in both Registers). During 2013, the Safety and Protection Division proposes to continue with the inspection activities and start the collection of the performances on all the rating elements identified in the model.

Among the other projects followed, during the year the Supplier Qualification and Rating Unit - together with the Corporate social responsibility and sustainability Unit - took part in the **Sustainable Supply Chain Work Group, set up within the sphere of Global Compact Network Italia**, which Acea has been a member of since 2007, for the purpose of sharing and implementing an instrument for monitoring the sustainability performances of the companies belonging to the supply chains of the Network members, encouraging the suppliers to adopt improved practices (see related box under *Corporate identity, Strategy and sustainability*, section *Sharing of the corporate social responsibility themes*).

#### **SAFETY AND PROTECTION: LAUNCH OF A VENDOR RATING SYSTEM INTEGRATED WITH THE QUALIFICATION SYSTEMS AND THE REGISTERS**

During 2012, the Safety and Protection Division put together a **rating model** based on an **“entry rating” (E.R.)** and an **“in situ rating” (I.R.)**. In detail, the **E.R. score is assigned to all the suppliers enrolled in the Register** and is made up of the score assigned to the supplier at the time of the QES (Quality - Environment and Safety) inspection and the assessment of the economic/financial soundness of the operator. By contrast, the **I.R. score** concerns **just the suppliers who have been awarded tenders** and shall be essentially populated **by the data collated within the sphere of the worksite inspections**, already tried and tested successfully by Acea Distribuzione, with the Vendor Rating system applied to suppliers of work in the energy area since 2008, and, for the remaining part, by the **assessment of the pre-contractual conduct** of the supplier.

In June, supplier inspection activities were launched, carried out by a Safety and Protection Division Team made up of contacts from the Supplier Qualification and Rating, Quality and Health and Safety in the workplace Units. The aim of the visit was to **check**, specifically: the **organisational structure**; the **physical structure**; the investment in **training**; the methods for **handling contracts**; the **management of the vehicles and the equipment**; the **handling of the warehouse**; the **observance of safety legislation**; the **observance of environmental legislation**.

For such purposes, a check list was drawn up for the assessment of the supplier which envisages a total of **177 requisites** divided up into 32 categories, **attributable to three inspection areas** (quality, environment and safety). The assignment of a score is envisaged for each requisite and, on an average basis, for each of the 32 categories identified. In order to provide consistency in the valuation, “Methods notes” have been drawn up which for each requisite indicate the significance of the scores in detail and act as guidelines for the appraiser. The assessment is summarised with a score of between 0 and 100: 40 points: Quality, 40 points: Safety, 20 points: Environment. The **outputs of the assessment** are the **check list compiled with the assignment of a specific and overall score** which classifies the supplier in one of the 5 entry rating classes and the **inspection report** for internal use, similar to that used for the Quality System.

<sup>79</sup> It should be borne in mind that an operator can be enrolled in several qualification Systems/Registers and that the data provided does not take into account the imposition of any transitory suspension measures.



During the year, initiatives were undertaken, also by the operating companies, which had positive repercussions on the supply chain, in terms of additional controls on quality and safety. Within **Acea Ato 2**, together with Acea SpA, the Trade Unions and the Trade Associations, an important **Protocol on the water tenders** was signed, with a view to on-going improvement of the work and services in the water sphere (see related box).

In **Acea Energia**, more challenging procedures with regard to **quality of the sales service provided by the agents** were introduced in the Agency mandate which disciplines the relations between Acea Energia and the network of sales agents, with a view to protecting the customers; this also envisaged **mandatory training** for all the agents (see related box).

### ▶ ACEA ATO 2: QUALITY OF WORK AND SAFETY IN THE WORKSITES IN THE PROTOCOL ON THE WATER TENDERS

In June 2012, Acea SpA, Acea Ato 2 and the Trade Union organisations CGIL, CISL and UIL, with the Trade Associations Filctem, Flaei, Uilcem, Fillea, Filca and Feneal **approved and signed a Protocol on the water tenders**, with a view to on-going improvement of the adjudication processes, aimed at encouraging a tenders market in which **standards for the handling of the work with regard to quality and safety** can stand out and preventing and **fighting irregular work, contractual and welfare breaches** and **the lack of observance of legislation concerning the protection of workers' safety**.

All the trade union organisations emphasised with great appreciation the signing of the Protocol, which envisages monitoring and control initiatives and other action aimed at checking the due nature, quality and safety of the works and the services within the sphere of water tenders.

On the basis of the features and the nature of the activities subject to tender, the presence on the contractor's workforce of professionals with proven experience and suitable training is envisaged with the aim of avoiding recourse to unsuitable profiles from a professional standpoint.

Furthermore, the **control activities** carried out by Acea Ato 2 have also been developed, in its capacity as contractor, sanctioning the commitment and frequency by means of which they will be checked on-site, including: the absence of irregular workers, the availability - in relation to the type of tender - of service premises (canteen, bathrooms, changing rooms) for the workers, certification of mandatory training regarding prevention and safety.

In order to highlight the importance of the steps taken, the establishment was agreed between the Trade Unions and Acea of a Joint commission, manifestation of the parties signing the Protocol, which will see to the monitoring of the trend of the tender contracts, with particular reference to aspects of prevention and protection of safety and observance of the contractual obligations undertaken.

### ▶ ACEA ENERGIA AND THE SALES AGENTS: TRAINING AND MONITORING OF PERFORMANCES

Acea Energia, the Group company tasked with the management of electricity and gas sales service, avails itself of structured companies with experience in the sector (Agencies) for the door-to-door sale and/or teleselling of electricity and gas in the "household" and "micro business" segments of the free market. **As from 2012, more challenging procedures** with regard to **quality of the sales service provided by the agents** were introduced in the Agency mandate which disciplines the relations between Acea Energia and the network of sales agents, with a view to protecting the customers and preventing any incorrect commercial practices (i.e. mis-selling).

The **Agency mandate** in fact envisaged both the **mandatory training of all the agents**, which operate on behalf of and in the name of Acea, and **monetary fines** in the event of detection of incorrect commercial practices. The training activities have the aim of clearly transmitting the notions relating to the free market dynamics and the sales proposals of Acea Energia, placing the agents in a position to adequately transfer information to the customer contacted. During the year, **Acea Energia provided 800 sales agents with a training programme** focused on Gas and Electricity Authority legislation, the Code of Commercial Conduct and the products offered.

Furthermore, the company has activated strict **internal procedures** aimed at **monitoring the performances of those appointed**: in the event of door-to-door sales, in fact, the customers are re-contacted by telephone to check that the information has been transmitted by the sales agent correctly and, in the event of telephone sales, all the calls are recorded and played back (also see the sections Customers and the community, Customer care). In the event of **incorrect commercial practices**, identified further to the control activities, the **Mandate envisages** that **monetary fines be imposed**, with a unit value of Euro 1,000, which is joined by the non-payment, in the pertinent month, of the remuneration linked to the commercial quality of the contracts acquired: in 2012, **in the presence of 140,000 new supply contract acquired** (electricity and gas), **27 cases of incorrect conduct were fined** (for a total of Euro 27,000), an extremely contained figure which bears witness to the adequate quality levels of the service carried out during the year.

A process aimed at implementing vendor rating has also been launched for the **companies in the waste management area** (waste to energy and environmental services) focused on the checking of observance of environmental and safety legislation: during the year, audits were carried out in the firms which work for **SAO** and which have carried out work at the Orvieto plant engineering Hub and on firms which carry out the service for the collection, transportation and disposal of the leachate produced by said complex; with regard to **A.R.I.A.**, a number of audits have been carried out on suppliers and a Register of qualified suppliers has been drawn up relating to the disposal activities.

Once again in 2012, activities also continued in **Acea Distribuzione** for the application of the **vendor rating system**, within the sphere of the **work in the energy area**, a **system for the assessment** of the activities of the companies developed, for some years now, in collaboration with Tor Vergata University. The assessment system, **centred on quality, safety and environment parameters**, envisages site inspections and the creation of **merit ratings based on the reputation of the contractors**, which are taken

into account, objectively and not predominantly, in the awarding of the tenders and for the qualification of the companies. The application of fines is possible along with suspension of the activities of the contracting company: **in 2012**, there were **suspensions** for non-compliance regarding safety at **23 sites**, in the presence of a total of **935 inspections made**. The application of the Vendor rating system continues to be a sharp incentive **for the improvement of the levels of attention paid to quality, safety and the environment** and **during the year** an additional **increase** was obtained **in the average reputation index** of 30 contracting companies (21 of which electromechanical and 9 involved in restoring road conditions) who worked for Acea Distribuzione, passing from an annual value of 91.47 in December 2011 to **91.65 in December 2012** (see related box for details).

Furthermore, on a consistent basis with the adoption by Acea Distribuzione of a **Safety Management System pursuant to the OHSAS 18001:2007 standard**, the companies supplying work are also obliged to comply with the **Health and Safety in the workplace Policy**.

## QUALITY AND SAFETY: THE VENDOR RATING SYSTEM FOR WORK IN THE ENERGY SECTOR

The system for assessing the performances of contractors operating in the energy sector, perfected in collaboration with the *Center of Advanced Procurement* at "Tor Vergata" University in Rome, **processes the information gathered on 142 opinion parameters centred on quality, safety and environment**, further to site inspections, and turns them **into an "Indicator of Reputation" (IR)**.

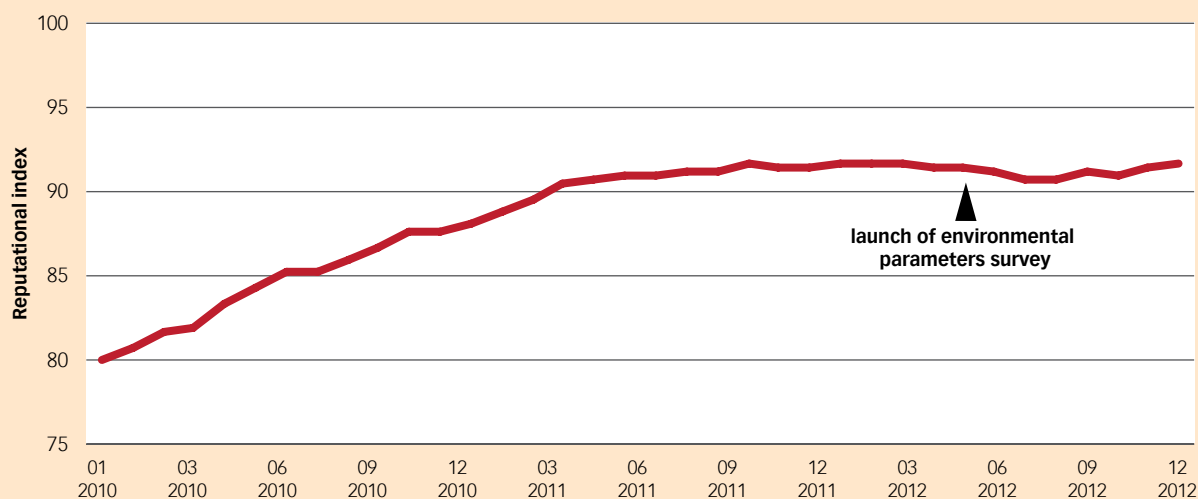
This IR has been introduced as a possible **additional parameter in the formula for awarding contracts**, rewarding the companies with the best safety and quality standards.

The Acea Distribuzione "**Inspection and Checks" Unit** carried out **around 2,750 inspections in the three-year period 2010-2012**. The **average annual indicator of reputation** for companies increased from a value of around 79.9 in January 2010, to a result of more or less **91.6**, involving a **particularly significant improvement trend**. The system has demonstrated that it can increase the reliability of companies, thereby guaranteeing optimum performance levels and positively affecting the entire supply chain.

The reputation index, or rather the opinion which the same company has assigned over time to its supplier becomes - alongside the proposed demotion - a possible element for assessing the quote which affects the choice of the winner in a balanced manner.

The chart shows the time-related performance on an annual basis of the average assessment of all the companies between January 2010 and December 2012, recalling that at the start of the project, January 2008, the average monthly index was around 40.

### OVERALL VALUATION OF COMPANIES – ROLLING YEAR January 2010 – December 2012



## LITIGATION WITH SUPPLIERS

**Disputes between the company and the suppliers** mainly concern two spheres: the **disputes for lack of payments** against supplies of goods, work and services and the **sentences regarding tender contracts**.

With regard to the former, these involve invoices which, in 90% of the cases, are not paid for formal reasons and as a rule are rapidly settled: in this connection, **12 positions were opened and closed in 2012** with another 13 positions pending.

With regard to the disputes on tender contracts, in relation to **69 total cases**, recourse was made to the **TAR** (regional administrative court) in relation to adjudications (**24 cases**) and there were proceedings before the **ordinary courts (45 cases)** relating to the recording of reservations by contractors, contract terminations, etc.

In conclusion, 7 petitions were filed by employees of the contracting firm of Acea Distribuzione, who invoked the joint and several liability of the Acea company due to the failed observance by their direct employer of certain elements associated with the employment relationship. Acea Distribuzione, as soon as it became aware of the situation, took steps to suspend payments to the contractor in breach vis-à-vis its workers, launching settlement procedures with the directly injured parties for the economic compensation of the damage suffered and at the same time taking steps to deduct these sums from the remaining amount due to the contractor.

# Human Resources

## Acea's employees

The Group headcount as of 31 December 2012, by consolidation percentage, numbered 7,257 resources, essentially unchanged with respect to 2011. The main changes concerned, in the one hand, the **increases in**

**Acea SpA** (+ 123 units) and **in Acea8cento** (+ 54 units), and on the other hand, **the reductions** in staff **within Acea Distribuzione** (- 52 units) and in **Acea Ato 2** (-51 units), companies where mobility and redundancy procedures are underway.

**TABLE NO. 47 – EVOLUTION OF GROUP EMPLOYEES BY BUSINESS SEGMENT (2010-2012)**  
(year end balances by consolidation percentage)

business area	2010	2011	2012
	(No. of employees)	(No. of employees)	(No. of employees)
<b>water</b>	<b>4,169</b> of which	<b>4,561</b> of which	<b>4,442</b> of which
<i>Lazio – Campania</i>	2,150	2,189	2,119
<i>Tuscany – Umbria</i>	715	853	869
<i>Abroad and laboratories (*)</i>	1,304	1,519	1,454
<b>energy</b>	<b>1,863</b> , of which	<b>1,796</b> , of which	<b>1,728</b> , of which
<i>Networks</i>	1,544	1,465	1,410
<i>generation and sales</i>	319	331	317
<b>waste management</b>	<b>181</b>	<b>202</b>	<b>193</b>
<b>corporate (Acea SpA+Acea8cento)</b>	<b>700</b>	<b>718</b>	<b>895</b>
<b>total</b>	<b>6,913</b>	<b>7,277</b>	<b>7,257</b>

(\*) the total for abroad and laboratories in 2010 included the 67 resources from Acea Gori Servizi, reclassified as from 2011 in the Lazio-Campania water area. Following adjustment, the 2011 figure which concerns abroad was changed with respect to that published last year.

**TABLE NO. 48 - GEOGRAPHIC LOCATION OF HUMAN RESOURCES (2010-2011)(\*)**

location	2011		2012	
	No.	%	No.	%
central-north (Tuscany-Umbria-Lombardy)	1,043	14.4	1,046	14.4
central-south (Lazio-Campania-Puglia)	4,865	66.8	4,913	67.7
abroad	1,369	18.8	1,298	17.9

(\*) by registered offices of the company they are employed by.

## Composition and turnover

### THE BOUNDARIES

The information and data presented in the section *Composition and turnover* refers to: Acea SpA, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Reti e Servizi Energetici, Acea Energia holding, Acea Energia, Acea Produzione, Acea8cento, Acea Ato 2, Acea Ato 5, Laboratorio, Acea Gori Servizi Scarl, Crea Gestioni Srl, Gesesa, Sogea, Lunigiana, Solemme, A.R.I.A, SAO, Aquaser and Umbra Acque for the two-year period 2010-2011.

Acea SpA's Human Resources and Organisation Division sees to, in service and on behalf of the subsidiary companies, the administrative management of the human resources employed by the same; the investee companies entrust this management to the parent company or outsource the same to other companies present on the market, with a view to making the process efficient and rationalising costs.

During the **three-year period 2010-2012**, there was a gradual **reduction in the total number of resources employed** in the Group; in 2012, in particular, the decrease in the overall workforce was attributable to the exclusion from the reporting boundaries of the investee company Umbra Acque (341 units), due to the fact that the company had left the sphere of administrative management entrusted up until last year to Acea SpA. By contrast, with regard to the other figures (employees by professional category, gender, level of education, recruits and leavers, etc.), in consideration of the reduced dimensions of the companies, they were affected to a contained extent by the decrease in the boundary, remaining in line with the values for the

previous two-year period.

Analyzing the composition of the workforce by professional qualification, the percentage incidence discloses **a progressive decrease** in the balances relating to **blue-collar, essential stability** of the **executive** category and **growth** in the **white-collar category** and, to a more contained extent, **middle management**. These changes, besides being determined by the movements - incoming and outgoing - of resources, were the result of changes in the professional levels and the **career advancements which concern the resources present in-house**.

Once again during 2012, **the percentage of female staff to total workforce resources**, on a consistent basis with the trend seen in the previous two-year period, **disclosed a slight increase**, reaching **22.8%** (21.3% in 2011 and 20.9% in 2010) (see table No. 49).

The predominant presence of male staff in the Group workforce can be explained by the type of businesses run, the nature of which, markedly technical-operational determines the professional and gender-related mix. At present, in fact, in Italy professional roles of a technical-operational nature are mainly covered by men.

**TABLE NO. 49 – ACEA'S EMPLOYEES: COMPOSITION OF THE HUMAN RESOURCES (2010-2012)**

(number)	2010				2011				2012			
	men	women	total	%	men	women	total	%	men	women	total	%
executives	109	21	<b>130</b>	2.4	95	20	<b>115</b>	2.2	83	19	<b>102</b>	2.1
middle management	266	88	<b>354</b>	6.6	265	100	<b>365</b>	7.1	269	104	<b>373</b>	7.8
white-collar workers	2,047	1,016	<b>3,063</b>	56.8	1,918	966	<b>2,884</b>	56.4	1,910	972	<b>2,882</b>	59.9
blue-collar workers	1,844	4	<b>1,848</b>	34.3	1,746	4	<b>1,750</b>	34.2	1,450	5	<b>1,455</b>	30.2
<b>total</b>	<b>4,266</b>	<b>1,129</b>	<b>5,395</b>	<b>100.0</b>	<b>4,024</b>	<b>1,090</b>	<b>5,114</b>	<b>100.0</b>	<b>3,712</b>	<b>1,100</b>	<b>4,812</b>	<b>100.0</b>

NB: The workforce total shown in the table differs, due to the reporting boundaries, from the figure indicated for the scope of consolidation (see table No. 47); furthermore, in 2012 the employees of Umbra Acque (341 resources) no longer fell within the scope of the data handled a centralised level.

**Recruits** during the year increased significantly with respect to 2011, reaching 2010 levels. In detail, the **187 recruits** were as follows: the acquisition within the parent company of 85 resources on the workforce of Marco Polo, 36 recruits from the outside employment market, 32 recruits for disputes, 30 stabilisations of

resources already present in the Group under atypical contracts, 4 transfers of employees between Group companies not included in the reporting boundaries.

The companies affected the most by incoming staff flows were Acea SpA with 85 resources from the company Marco Polo, not included in the reporting boundaries, in

accordance with the agreement for the reallocation of the activities and resources within the parent company, 5 stabilisations and 2 recruits of which 1 transfer from Gas de France; Acea8cento with 61 recruits of which 32 for disputes, Acea Energia SpA with 5 recruits and 7 stabilisations; LaboratoRI with 6 stabilisations and Acea Ato 5 with 6 stabilisations.

In total, during 2012 the resources taken on under permanent contracts amounted to 73, 30 of which stabilised and 32 due to disputes while the resources take on under temporary contracts numbered 27.

**Human resources leaving the company** during 2012, going against the trend in the last two years, were clearly **down** (see table No. 50) mainly as a result of the progressive depletion of the lay-off and redundancy agreements launched by the company in previous years for the functional changeover of the human resources.

During the year, **64 employees** were laid off (27 from Acea Distribuzione, 25 from Acea Ato 2, 7 from Acea Energia and 5 from Acea SpA) and the **facilitated voluntary redundancy plans** involved **32 employees** who decided to terminate their employment contract with the company under agreement involving incentives.

**TABLE NO. 50 – ACEA’S EMPLOYEES: NEW RECRUITS AND LEAVERS (2010-2012)**

(number)	2010			2011			2012		
	men	women	total	men	women	total	men	women	total
<b>NEW RECRUITS (*)</b>									
permanent positions	94	25	<b>119</b>	57	17	<b>74</b>	28	45	<b>73</b>
temporary positions	18	19	<b>37</b>	9	6	<b>15</b>	9	18	<b>27</b>
induction contracts	4	1	<b>5</b>	0	1	<b>1</b>	0	0	<b>0</b>
professional training apprenticeship contracts	8	12	<b>20</b>	1	1	<b>2</b>	0	2	<b>2</b>
acquisition of business segments	0	0	<b>0</b>	0	0	<b>0</b>	66	19	<b>85</b>
<b>total</b>	<b>124</b>	<b>57</b>	<b>181</b>	<b>67</b>	<b>25</b>	<b>92</b>	<b>103</b>	<b>84</b>	<b>187</b>
(of which) acquisition of staff from Public Authorities	37	7	<b>44</b>	2	0	<b>2</b>	0	0	<b>0</b>
<b>LEAVERS (**)</b>									
	<b>men</b>	<b>women</b>	<b>total</b>	<b>men</b>	<b>women</b>	<b>total</b>	<b>men</b>	<b>women</b>	<b>total</b>
mobility (lay offs)	180	21	<b>201</b>	102	6	<b>108</b>	53	11	<b>64</b>
redundancies	51	11	<b>62</b>	45	2	<b>47</b>	26	6	<b>32</b>
retirements	7	2	<b>9</b>	4		<b>4</b>	2	0	<b>2</b>
dismissals	1	1	<b>2</b>	3	1	<b>4</b>	0	1	<b>1</b>
spin-off of joint-venture between Acea and GdF Suez Energy Italia SpA				103	37	<b>140</b>	0	0	<b>0</b>
other reasons	59	29	<b>88</b>	52	18	<b>70</b>	43	6	<b>49</b>
<b>total</b>	<b>298</b>	<b>64</b>	<b>362</b>	<b>309</b>	<b>64</b>	<b>373</b>	<b>124</b>	<b>24</b>	<b>148</b>

NB: the 2010 figures have been recalculated including Aquaser

(\*) the item “recruits” includes: the human resources acquired from the outside market, the acquisition of resources from Public bodies, and the transfer of human resources from companies not included in the reporting boundaries.

(\*\*) under “leavers”, the item “mobility (lay-offs)” indicates a form of **voluntary pre-retirement with incentive**, subject to trade union negotiation, which the company proposes to employees near to retirement age subject to performance of preliminary organisational analysis aimed, amongst other things, at limiting the social impact of the retirement process: the employees laid off are in fact identified within the organisational areas considered in excess and from among those in possession of the age-contribution requirements for retirement within three years of the termination of the employment relationship; the item “redundancies” indicates the consensual and incentivised termination of the employment contract, the item “other” includes leavers due to: **resignation (18 in 2012), transfer of staff to Group companies outside the reporting boundaries (18 in 2012), contract expiry (9 in 2012) and demise (4 in 2012).**

The **duration of the employment relationship** of human resources leaving the Group discloses the essential stability of the company employment. In fact, during 2012 for 69.6% of the resources this period was less than 30 years (79.3% in 2011) and comes to between **30 and 40 years** for **29.7%** of the staff (20.7% in 2011).

**TABLE NO. 51 – ACEA’S EMPLOYEES: DURATION OF THE EMPLOYMENT RELATIONSHIP (2012)**

duration of the employment relationship	leavers in 2012		
	men	women	total
≤ 30 years	91	12	<b>103</b>
> 30 years and ≤ 40 years	33	11	<b>44</b>
> 40 years and ≤ 50 years	0	1	<b>1</b>
<b>total</b>	<b>124</b>	<b>24</b>	<b>148</b>

Considering just the companies involved in the energy sector, the figures are essentially in line with those of the Group, with 61.2% of leavers who have worked for the company for a period of less than 30 years (78.6% in 2010) and 38.8% for a period of between 30 and 40 years (21.4% in 2011).

**TABLE NO. 52 – ENERGY SECTOR COMPANIES: DURATION OF THE EMPLOYMENT RELATIONSHIP (2012)**

duration of the employment relationship	leavers in 2012		
	men	women	total
≤ 30 years	25	5	<b>30</b>
> 30 years and ≤ 40 years	16	3	<b>19</b>
> 40 years and ≤ 50 years	0	0	<b>0</b>
<b>total</b>	<b>41</b>	<b>8</b>	<b>49</b>

*NB: as per GRI Sector protocol (commentary on LA2), the figures refer to Group employees employed by companies operating in the energy sector, mainly located in Lazio.*

In the Acea Group, **99.1% of the human resources are employed under permanent contracts** (98.1% in 2010) therefore nearly all of the workforce is in fact employed under **permanent contractual forms**. The number of human resources employed under **temporary contracts rose by ten units** with respect

to 2011 while the balance of staff taken on under **professional training apprenticeship contracts** confirmed its downwards trend, closing the cycle of taking on apprentices launched in previous years (see table No. 53).

**TABLE NO. 53 – ACEA’S EMPLOYEES: CONTRACT TYPES (2010-2012)**

(number)	2010			2011			2012		
	men	women	total	men	women	total	men	women	total
permanent workforce	4,148	1,032	<b>5,180</b>	3,970	1,049	<b>5,019</b>	3,695	1,076	<b>4,771</b>
<i>(of which)</i> <i>part-time</i>	17	70	87	21	85	106	23	86	109
staff on temporary contracts	26	12	<b>38</b>	14	5	<b>19</b>	11	18	<b>29</b>
staff on induction contracts	4	3	<b>7</b>	0	0	<b>0</b>	0	0	<b>0</b>
staff on professional training apprenticeship contracts	88	82	<b>170</b>	40	36	<b>76</b>	6	6	<b>12</b>
<b>total</b>	<b>4,266</b>	<b>1,129</b>	<b>5,395</b>	<b>4,024</b>	<b>1,090</b>	<b>5,114</b>	<b>3,712</b>	<b>1,100</b>	<b>4,812</b>

The turnover rate, 7%, was down with respect to the previous two-year period; the leaver rate was down sharply while the recruitment rate rose (see table No. 54).

This latter figure, for 2012, should also be placed in relation to the acquisition within the parent company of staff transferred from Marco Polo.

**TABLE NO. 54 – TURNOVER, RECRUITMENT, AND LEAVER RATES (2010-2012)**

	turnover rate			recruitment rate			leaver rate		
	2010	2011	2012	2010	2011	2012	2010	2011	2012
	9.9%	8.9%	7.0%	3.3%	1.8%	3.9%	6.7%	7.3%	3.1%

NB: the turnover rate is the sum of the recruits and the leavers during the year as a ratio of total workforce; the companies to which the figures refer are mainly situated in Lazio; the 2012 figures are broken down below by gender: turnover for women 2.1%, turnover for men 4.7%; recruitment for women 1.7%, recruitment for men 2.1%; women leavers 0.5%, men leavers 2.6%.

The average age of the employees and the average seniority within the company rose in 2012 with respect to the previous two-year period (see tables No. 55 and 56); the composition of the workforce by age bracket (table No. 57) reveals that **67.7% of the human resources**

were aged between 36 and 55 and 16.3% had a maximum of 35 years of age, proof of the company's ability to attract younger resources, who over the years will develop specific skills, and to keep more mature resources, in possession of know-how already formed.

**TABLE NO. 55– ACEA'S EMPLOYEES: AVERAGE AGE OF THE HUMAN RESOURCES (2010-2012)**

(years)	2009			2011			2012		
	men	women	total	men	women	total	men	women	total
average age in company	45.6	41.9	44.8	46.2	42.8	45.5	46.9	43.1	46.0
average age of executives	50.1	47.9	49.7	50.2	49.3	50.1	51.3	50.0	51.1
average age of middle managers	46.6	45.4	46.3	47.4	45.8	47.0	48.4	46.2	47.8
average age of white-collars	45.5	41.4	44.2	46.2	42.4	44.9	46.9	42.6	45.4
average age of blue-collars	45.3	52.1	45.3	45.7	52.0	45.8	46.3	54.1	46.4

**TABLE NO. 56 – ACEA'S EMPLOYEES: AVERAGE LENGTH OF SERVICE OF THE HUMAN RESOURCES (2010-2012)**

(years)	2010			2011			2012		
	men	women	total	men	women	total	men	women	total
average length of service in company	12.9	10.9	12.5	13.5	11.8	13.2	15.0	12.3	14.4
average length of service of executives	13.3	17.7	14.0	13.9	19.1	14.8	16.2	19.5	16.8
average length of service of middle managers	14.5	13.9	14.3	15.1	14.3	14.9	16.6	15.0	16.1
average length of service of white-collars	14.1	10.5	12.9	14.9	11.4	13.7	15.9	11.8	14.5
average length of service of blue-collars	11.3	17.8	11.3	11.7	15.7	11.8	13.5	19.8	13.5



**TABLE NO. 57 – ACEA’S EMPLOYEES: AGE BRACKET (2012)**

	men	women	total
≤ 25 years	24	20	<b>44</b>
> 25 years and ≤ 30 years	160	93	<b>253</b>
> 30 years and ≤ 35 years	314	175	<b>489</b>
> 35 years and ≤ 40 years	450	161	<b>611</b>
> 40 years and ≤ 45 years	663	216	<b>879</b>
> 45 years and ≤ 50 years	727	176	<b>903</b>
> 50 years and ≤ 55 years	710	157	<b>867</b>
> 55 years and ≤ 60 years	591	96	<b>687</b>
> 61 years	73	6	<b>79</b>
<b>total</b>	<b>3,712</b>	<b>1,100</b>	<b>4,812</b>

With regard to the **level of education of the human resources**, in 2012 there was a greater number of resources in possession of a university degree and a minor presence of employees with other types of scholastic qualifications, generally of a lower level. The percentage of employees with **university degrees and high school diplomas** rose respectively to 15.7% (13.9% in 2011) and to 47.8% (44.1% in 2011) **of the total workforce** (see table No. 58), the percentage of employees in possession of other qualifications by contrast remained stable at roughly 17%.

The **percentage of women graduates out of total graduates** increased in 2012, to **40.8%** (39.9% in 2011).

**TABLE NO. 58 – ACEA’S EMPLOYEES: LEVEL OF EDUCATION (2010-2012)**

(number)	2010			2011			2012		
	men	women	total	men	women	total	men	women	total
university graduates	469	294	<b>763</b>	428	285	<b>713</b>	448	311	<b>759</b>
high school diploma holders	1,790	506	<b>2,296</b>	1,756	500	<b>2,256</b>	1,772	528	<b>2,300</b>
other qualifications	828	76	<b>904</b>	783	75	<b>858</b>	766	66	<b>832</b>
not established (*)	1,179	253	<b>1,432</b>	1,057	230	<b>1,287</b>	726	195	<b>921</b>
<b>total</b>	<b>4,266</b>	<b>1,129</b>	<b>5,395</b>	<b>4,024</b>	<b>1,090</b>	<b>5,114</b>	<b>3,712</b>	<b>1,100</b>	<b>4,812</b>

(\*) with regard to certain Group companies, as those recently included in the reporting boundaries, the figure concerning the level of education of the resources has not been traced in full. Steps are being taken to make the data registration and monitoring system more efficient. However, the decision was taken to break down the figures as indicated in the table so as to provide a representation as close to the company situation as possible.

## Industrial relations

### THE BOUNDARIES

The information and data presented in the section Industrial relations refers to: Acea SpA, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Reti e Servizi Energetici, Acea Energia holding, Acea Energia e Acea Produzione, Acea8cento, Acea Ato 2, LaboratoRI, A.R.I.A, SAO and Aquaser.

The **Consolidated contract for the electricity sector** and the **Consolidated contract for the gas-water sector** are applied within Acea and, within Acea8cento, an *ad hoc* contract is applied, specifically defined with the pertinent national associations. **All the employees** are therefore covered by **collective bargaining agreements**.

During 2012, **74.8% of company employees were members of trade unions**, a figure in line with the previous year (74.6%); the resources who were **executives or representatives of trade unions came to 347, 17 of which covering the role of Workers' Safety Representatives (RLS)**, appointed further to the entering into of a statement of agreement by 6 of the 7 unions with whom Acea structurally has trade union talks.

During the second half of the year, **negotiations were launched for the renewal of the Consolidated contract for the electricity sector and the gas-water sector**, both having expired on 31 December 2012.

Numerous aspects were subject to renewal negotiation talks, in detail, with regard to the **Consolidated contract for the electricity sector**, they concerned:

- **classification:** a reform of the classification system is under discussion, which envisages the unification of minimum wage and contingency, with the consequent decrease of the number of levels and review of the professional profiles;
- **strikes:** an essential agreement has been reached on the overall framework which should be formulated in the new contract;
- **the labour market:** updates to the contractual text are being discussed as a consequence of the legislative innovations introduced by the so-called "Fornero" Reform Law as well as further to Italian Decree No. 167/2011 which defined the new apprenticeship contract;
- **the contractual set ups and trade union bargaining:** the formalities for implementing the

contents of the national multi-industry agreement between the Government and Social Partners on Productivity, dated 16 November 2012, are being checked, with particular reference to the possibility of assigning part of the salary increase, deriving from the renewal, to the 2nd level contract, thereby making the most of the corporate bargaining aimed at seizing productivity improvements also accompanied by legislative measures for tax and social security relief. The appropriateness of defining a specific Protocol to support the 2nd level bargaining is also being discussed, which will acknowledge the principles of the derogable nature at corporate level of the discipline established by the National Collective Labour Agreement (CNL);

- **union approvals:** within the framework of the complex reorganisation of the system, aimed at aligning at sector level the instruments available to the Trade Union Associations (OO.SS.) for the performance of their appointment, talks were undertaken for the standardisation of the discipline relating to the management of hours of trade union leave; with particular reference to those due to the Unions in relation to the number of workers in the companies;
- **working hours:** for the purpose of rendering the contractual legislation more heedful to the need for efficiency of the companies, the re-formulation of certain institutes relating to working hours is being negotiated (overtime, multi-period, manhour database, etc.).

With reference to the **Consolidated contract for the gas-water sector**, the negotiations are at a less advanced stage with respect to those of the electricity sector Contract, also due to the request of the Trade Unions and the employers' delegation - Confindustria Energia - to include the gas-water contractual area within the Energy macro-segment, together with the Energy and Oil segment. This position has not met with the approval of Federutility, the association which Acea is a member of and which represents 76% of the multi-

utility companies active in the Water and Gas sector, to whom the contract under renewal currently refers.

The contents on which negotiation has been launched with the trade unions include the **employment market**, the **contractual set ups** and **trade union bargaining** and **the working hours**; additional aspects dealt with for the Consolidated contract for the gas-water sector include:

- **availability**: unification of the discipline of availability is pursued by means of overcoming the bargaining obligation and the definition of a remuneration which creates a rebalance of the relationship between mere availability and effective work service;
- **the periodic seniority increases**: the intention is to outdate the institute by possibly establishing compensatory amounts on Supplementary Welfare.

During 2012, the questions dealt with and defined by the Industrial Relations Unit with the Trade Union Associations (OO.SS.) concerned all the profiles of trade union talks: legislative, economic and work organisation.

With regard to **organisation and working hours**, the following agreements were entered into:

- for Acea Produzione - Tor di Valle/Montemartini complex, an agreement was signed regarding working hours and shifts;
- with regard to Acea Ato 2, in order to ensure adequate supervision with respect to labour-related legal and contractual provisions, an agreement was entered into regarding the Emergency Service in the Rome and Fiumicino area;
- in relation to Acea Distribuzione, in accordance with the new specifications established by the AEEG with regard to the registration of blackouts in the electricity distribution service for the 2012-2015, a statement of agreement was signed with the Trade Unions. In the same agreement, the commitment was undertaken to meet so as to define the implementation of the second part of the WFM (Work Force Management) pilot project which will concern the control activities on meters, disconnections due to arrears and reconnections, connections and take-overs. A regulatory statement of agreement has also been entered into on the video-surveillance of the buildings and the plants.

The **agreements reached during the year**, included some which concerned topics of primary importance for

the human resources such as the **results bonus**, **the labour market**, **the aspects of health and safety in the work place**.

In detail, with regard to the **2nd level negotiations**, in line with the commitments undertaken in the agreements signed in 2008 and 2011, Acea SpA and the Group companies have entered into an agreement with the Trade Union Associations Filctem /Cgil and Uilcem/ Uil relating to the **review of the indicators of the Results Bonus for 2012**.

With regard to Acea8cento, the IQF indicator (Supplier Quality Index) was updated, this being associated with the disbursement of 33% of the productivity/quality factor.

In consideration of the new set up and the business prospects of A.R.I.A. and SAO, the overall review of the technical-legislative structure of the 2nd level negotiations was deemed appropriate. In July, two separate agreements were entered into which respectively discipline the new results bonus and the vouchers for the three-year period 2012-2014. As from 1 January 2013, the companies shall pay over an additional amount for each employee benefiting from supplementary healthcare so as to cover dentist costs.

With reference to the **labour market**, Acea SpA, in the name and on behalf of Acea8cento, Federutility and the national Secretariats Filctem-Flaei-Uilcem entered into an agreement for the discipline of apprenticeships, recognised as being a preferential contractual induction instrument for finding human resources. Thus in line with the principles laid down in the Consolidation Act, which came into force in 2011, which delegated the main source entitled to discipline this institute to national multi-industry agreements or labour contracts drawn up at national level.

In relation to the matter of **trade union availability**, in consideration of the changed organisational set-up of the Acea Group as well as the significant legislative amendments regarding the health and safety of workers, the companies Acea SpA, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Reti e Servizi Energetici, Acea Energia holding, Acea Energia, Acea Produzione, Acea8cento, Acea Ato 2, LaboratoRI and the Trade Unions, with the exclusion of UGL Chimici Energia, entered into - as already mentioned - a statement of agreement for the appointment of the new Workers' Safety Representatives.

Furthermore, again in 2012, two agreements were entered into, one valid for the entire Group and the other for Acea8cento, for the application of the **facilitated tax regime on accessory components of remuneration** attributable to productivity increases, innovation and efficiency.

Within the sphere of the corporate reorganisation processes, during the first half of the year the procedure relating to the transfer of the business segment of SAO - Servizi Ambientali Orvieto to COSP TECNOSERVICE Srl was concluded, pertaining to the activities and resources dedicated to the waste collection and transportation services in the area of the Province of Terni.

Of particular importance among the agreements reached during the year, was the **Water Tenders Protocol** entered into in June by Acea SpA, Acea Ato 2 and the Trade Unions Cgil, Cisl e Uil, with the respective sector representatives (Filctem, Flaei, Uilcem, Fillea, Filca and Feneal), updating and replacing the previous protocol in force. The Protocol on the Water Procurement was entered into for **turning to account the quality of the work and the safety at worksites** by means of monitoring and control initiatives and action; accordingly, the establishment of a Joint commission was agreed, dedicated to monitoring activities on the tenders with particular reference to the measures for the prevention and safeguarding of the safety of workers and the observance of the contractual obligations undertaken vis-à-vis the same. The Commission had already met and commenced work back in 2012 (also see the section *Suppliers*).

With regard to the **training area**, the companies Acea SpA, Acea Distribuzione, Acea Ato 2, Acea Reti e Servizi Energetici and LaboratoRI complied with the Training plan furthered by the FOR.TE. Fund (*Fondo Paritetico Interprofessionale Nazionale per la Formazione continua del terziario*) which provided funding for the purpose of the adaptation and development of the skills of the employees as well as the growth of the competitive capacity of the companies. The contents and the breakdown of the Plan, valid for the 2012-2013 period, were agreed on with the Trade Unions.

With regard to the **prior disclosure to employees regarding any organisational changes or corporate reorganisations** capable of affecting the employment relationships, it is as well to clarify that the company adopts different conduct depending on the eventualities illustrated below:

1. **organisation changes**: in the event that new Divisions are established or the mission is amended, the Acea SpA Human Resources and Organisation Division shall issue an Organisational Provision, make communication of the same to the pertinent structures who then take steps to publish it on the notice-board and corporate Intranet. As a rule, the trade union negotiations indicated below are held on any changes introduced which affect workers; when these changes affect the individual employee (for example: changes in place of work, working hours, etc.) to said individual is sent a specific communication;
2. **corporate restructuring**: in the event of restructuring, further to significant organisational and production changes, with consequences on working conditions and employment, the methods of informing the employees, as well as their Trade Union Representatives, are disciplined by the CCNLs applied within the Group and the Industrial Relations Protocols;
3. **corporate transformations** (such as transfers, mergers, take-over bids, transfer of business segments): in the cases of corporate transformation, the notifications provided to the employees are disciplined by current legislation<sup>82</sup> which envisages disclosure obligations vis-à-vis the workers' representatives, such that they are permitted to check the industrial justification of the operations, the correct formalities of the process as well as the repercussions on the employment relationships.

<sup>82</sup> Article 2112 of the Italian Civil Code and Article 47 of Italian Law No. 428/90 and subsequent amendments further to Italian Legislative Decree No. 276/2003.

## DISPUTES WITH EMPLOYEES AND TRADE UNIONS

During 2012, the types of disputes furthered by human resources vis-à-vis Acea mainly concerned the following aspects: grade review, wage/salary differences, indemnities not received (e.g. shift pay), demotion and mobbing.

With respect to last year, the **overall amount of the disputes (129 positions)** remained **unchanged**. The opening of new cases of dispute by contrast disclosed a drop (**16 positions** with respect to the 32 in 2011).

During the year, with regard to the dispute pending with the workers of the former COS (Almavia Contact), relating to the phenomenon of alleged intervention of workforce for the call centre services, 39 transactions were entered into, in some cases envisaging economic agreements, in others employment within the company Acea8cento. 13 positions are still being negotiated, again for the purpose of reaching a settlement for this dispute.

With reference to the petition for alleged anti-trade union conduct pursuant to Article 28 of Italian Law No. 300/70 presented last year by the trade union USB Lavoro Privato, containing the request for the appointment of its own Workers' Safety Representative (RLS), the Employment Tribunal in the first instance declared that this right existed. In 2012, further to the opposition of Acea, the Tribunal reformed its decision declaring the inexistence of anti-trade union conduct and thus the inexistence of the right of the Trade Union.

In 2012, a petition was served for alleged anti-trade union conduct pursuant to Article 28 of Italian Law No. 300/70, by the trade union UGL ENERGY vis-à-vis Acea Ato 2, regarding the alleged failure of the company to reply to the request for the acknowledgement of an additional economic amount for staff qualified as foremen. The Tribunal rejected the petition ordering the Trade Union to reimburse the trial costs.

With reference to the dispute proposed by the workers of the former COS (now Almaviva Contact) and B2WIN, relating to the phenomenon of alleged intervention of workforce, an economic-type settlement solution was adopted which led, on the one hand, to the cessation of the matter under dispute with certain of the plaintiffs and, on the other hand, mediation aimed at the employment by Acea8cento of the majority of the plaintiffs. Accordingly, during 2012 the number of positions for which the legal dispute still remain open has been reduced to just a few; in any event, further mediation is underway for these positions.

The disputes still open in opposition proceedings relating to the treatment of shift workers in the electricity area on the various method of remunerating ordinary services on weekday holidays during 2012, was settled favourably for Acea.

The last two appeals relating to the Lay-off procedures were in conclusion settled, relating to the period 2003-2004, one favourably for the company, and the other not; the deposit of the related sentence is awaited for the latter.

## Diversity and Equal opportunities

### Diversity

#### THE BOUNDARIES

The information and data presented in *Diversity* refers to: Acea SpA, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Reti e Servizi Energetici, Acea Energia holding, Acea Energia, Acea Produzione, Acea8cento, Acea Ato 2, Acea Ato 5, Laboratorio, Acea Gori Servizi Scarl, Crea Gestioni Srl, Gesesa, Sogea, Lunigiana, Solemme, A.R.I.A, SAO, as from 2011 Aquaser, and Umbra Acque for the two-year period 2010-2011.

Acea hires and integrates human resources from protected categories in the company (differently-abled, orphans, etc), in compliance with the matters laid down by legislation (Italian Law No. 68/99) who are guaranteed, partly thanks to the activities of the Associazione Nazionale Mutilati e Invalidi Civili (ANMIC – National

Association for Disabled and Invalid Civilians), support services, assistance and technical tools to help them carry out their duties. **Human resources belonging to protected categories** amounted to **276 resources** (173 men and 103 women) as of 31 December 2011.

## Equal opportunities

### THE BOUNDARIES

The information and data presented in *Equal opportunities* refers to: Acea SpA, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Reti e Servizi Energetici, Acea Energia holding, Acea Energia e Acea Produzione, Acea8cento, Acea Ato 2, LaboratoRI.

Acea set up the **Equal Opportunities Commission (CPO)** in 1991 with the task of furthering and supporting policies and initiatives **for overcoming all types of inequality**, fighting direct or indirect discrimination with regard to women and all the parties exposed to risk factors, furthering full integration in the work context. The members of the CPO are partly appointed by the trade union and partly by the company.

**The CPO has a dedicated area on the company intranet**, conceived as an instrument for informing and raising awareness addressing all the human resources for increasing knowledge of the value of differences in-house. Acea's policy for protecting equal opportunities involves both **Regulations for safeguarding the dignity of**

**men and women** and an **Advisor**: an outside expert whose job is to gather and sort out any reports of discrimination, sexual harassment and mobbing.

In compliance with the law (Italian Legislative Decree No. 198/06), during 2012 Acea SpA drafted the report on gender referring to the two-year period 2010-2011 to illustrate the situation concerning male and female resources (numbers, grade, etc.). This document is drawn up by Acea SpA's Human Resources and Organisation Department and is forwarded to the Equal Opportunities Commission and Trade Unions, which study the information and present specific projects on the basis of the emerging data.

## Female presence within Acea

### THE BOUNDARIES

The information and data presented in *Female presence within Acea* refers to: Acea SpA, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Reti e Servizi Energetici, Acea Energia holding, Acea Energia, Acea Produzione, Acea8cento, Acea Ato 2, Acea Ato 5, LaboratoRI, Acea Gori Servizi Scarl, Crea Gestioni Srl, Gesesa, Sogea, Lunigiana, Solemme, A.R.I.A, SAO, as from 2011 Aquaser, and Umbra Acque for the two-year period 2010-2011.

For the three-year period under review, the figures relating to **female presence within Acea** disclose a slight and constant rise in the percentage of women out of total human resources and within the professional categories: with respect to 2011, there was an increase of 1.2% in women executives, stability in the middle

management category (+0.5%) and +0.8% of women graduates; in 2012, by contrast the percentage of women belonging to the corporate governance bodies decreased by 2.5% (see table No. 59).

The gender figures relating to training and remuneration are shown in the pertinent paragraphs of this section.

**TABLE NO. 59 – WOMEN WITHIN ACEA (2010-2012)**

	2010	2011	2012
percentage of women out of total workforce	20.9%	21.3%	22.9%
percentage of women out of total members of corporate governance bodies (*)	6.7%	8.0%	5.5%
percentage of women executives out of total executives	16.2%	17.4%	18.6%
percentage of women middle managers out of total middle managers	24.9%	27.4%	27.9%
percentage of women graduates out of total graduates	38.5%	40.0%	40.8%

(\*) Boards of Directors, Boards of Statutory Auditors and Supervisory Bodies of the companies included within the reporting boundaries. With reference to the Supervisory Bodies, it is hereby specified that the figure relating to female presence is not available for 4 Group companies not directly controlled by Acea.

## Working hours and absences

### THE BOUNDARIES

The information and data presented in the section *Working hours and absences* refers to: Acea SpA, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Reti e Servizi Energetici, Acea Ato 2, Acea Ato 5, LaboratoRI, Acea8cento, Acea Energia holding, Acea Energia and Acea Produzione.

**Total hours worked** during the year **remained more or less unchanged** when compared with last year (see table No. 60); the percentage of overtime out of

total hours worked, both for men and women, was also stable, standing at 7.1% for men (6.9% in 2011) and 1.8% for women (1.9% in 2011).

**TABLE NO. 60 - ACEA'S EMPLOYEES: WORKING HOURS (2010-2012)**

	2010			2011			2012		
	men	women	total	men	women	total	men	women	total
ordinary hours worked	5,808,919	1,456,624	<b>7,265,543</b>	5,451,445	1,386,671	<b>6,838,116</b>	5,395,439	1,444,928	<b>6,840,367</b>
overtime worked	415,088	31,519	<b>446,607</b>	407,815	27,616	<b>435,431</b>	412,467	27,033	<b>439,500</b>
<b>total hours worked</b>	<b>6,224,007</b>	<b>1,488,143</b>	<b>7,712,150</b>	<b>5,859,260</b>	<b>1,414,287</b>	<b>7,273,547</b>	<b>5,807,906</b>	<b>1,471,961</b>	<b>7,279,867</b>

The **total number of days of absence** rose slightly with respect to 2011 (+ 1.7%). Absences due to illness decreased along with those for leave of absence or "other reasons", by contrast absences for the use of

sundry leave rose (study purposes, etc.), along with that for maternity/paternity leave, trade union leave and strikes.

**TABLE NO. 61- ACEA'S EMPLOYEES: DAYS OF ABSENCE (2010-2012)**

	2010			2011			2012		
	men	women	total	men	women	total	men	women	total
absence due to illness	24,559	11,868	<b>36,427</b>	24,736	11,869	<b>36,605</b>	23,259	11,029	<b>34,288</b>
absence due to maternity (pregnancy and post partum)/ paternity leave	650	9,678	<b>10,328</b>	876	9,576	<b>10,452</b>	800	12,320	<b>13,120</b>
absence due to strike action	430	93	<b>523</b>	1,057	264	<b>1,321</b>	1,407	397	<b>1,804</b>
trade union leave	6,531	1,068	<b>7,599</b>	5,665	1,012	<b>6,677</b>	5,761	1,052	<b>6,813</b>
other leaves of absence	3,197	1,693	<b>4,890</b>	3,141	1,803	<b>4,944</b>	2,239	1,982	<b>4,221</b>
sundry leaves of absence (study, health, mourning and generic reasons)	11,289	4,900	<b>16,189</b>	10,370	4,594	<b>14,964</b>	11,383	5,107	<b>16,490</b>
other reasons (*)	2,158	538	<b>2,696</b>	2,798	773	<b>3,571</b>	2,334	836	<b>3,170</b>
<b>total days of absence (excluding holiday entitlement and accident &amp; injury)</b>	<b>48,814</b>	<b>29,838</b>	<b>78,652</b>	<b>48,643</b>	<b>29,891</b>	<b>78,534</b>	<b>47,183</b>	<b>32,722</b>	<b>79,906</b>

(\*) The item "other reasons" is mainly represented by "secondment" and also includes leave for "public appointments" or "giving evidence" and days of "unjustified absence" and hydrothermal treatments.

The human resources can avail of different types of leave; furthermore the company makes **flexible forms** available to them: for example, recourse to **part-time hours** which in 2012 concerned **2.3% of the human resources**, "**orario fiduciario**", which middle managers and 3rd level white-collars have available, permitting a "personalised" handling of work time, in

line with the services envisaged by the contract; and **flexi-time** for starting (between 7.45 a.m. and 9.00 a.m.) and leaving work (between 4.10 p.m. and 5.20 p.m.) envisaged for first, second and third level white-collars; in conclusion, the latter and blue-collars avail of a monthly accumulation of hours of leave to be recouped within the same month of use.



## Safeguarding health and safety in the workplace

### THE BOUNDARIES

The information and data presented in the section *Safeguarding of health and safety in the workplace* refers to: Acea SpA, Acea Reti e Servizi Energetici, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Ato 2, Acea Ato 5, Laboratorio, Acea Energia holding, Acea Energia, Acea Produzione, Umbria Energy, Acea8cento, Acque, Acque Servizi, Acque Industriali, Ingegnerie Toscane, Publiacqua, Acquedotto del Fiora, Crea Gestioni Srl, GEAL, Gesesa, Gori, Sogea, Umbra Acque, Aquaser, Kyklos, Solemme, A.R.I.A and SAO.

In compliance with current legislation (Italian Legislative Decree No. 81/08 as amended or added to), **each Group company is directly responsible for handling safety**. The **co-ordination and policy** activities are the responsibility of **Acea SpA** which, via the **Safety and Protection Division** has the task of monitoring the companies with regard to application of the guidelines, the policies issued and alignment with current legislation. A self-control safety model is operative in-house, supported by computer, which aids the Group companies with regard to the handling of each stage of the process and in particular: in the verification of the level of compliance with legislation, the handling of the mandatory documentation, the monitoring of the deadlines, the handling of any non-compliances detected, etc.

During 2012, the Safety and Protection Division, with the collaboration of the Innovation and Communication Technology (ICT) Division, established the requirements for a further implementation of the applications of the IT model, foreseeing the possibility of **managing the information and data associated with safety both in a way directly referable to the workers** (risk profile, training, individuals protection gear, etc.) **and in relation to the workplaces**.

Furthermore, Acea SpA - already in possession of certified Quality and Safety management systems (UNI EN ISO 9001:2008 and OHSAS 18001:2007), **during 2012 launched the process for the integration of the two systems** with the integrated review of the manual, whose issue took place at year end.

In conclusion, in December the parent company adopted the new Quality, Environment, Safety and Energy Policy, extended to all the Group companies, the first step towards the total integration of the company management systems (see *Corporate identity, Corporate governance and management systems*).

With regard to the process for assessing the **risks for workers** and the **monitoring of accidents**, each

company takes steps according the current legislation, drawing up the **Risk Assessment Document (DVR)**. Following these independent activities, **the Safety and Protection Division**, annually and **at centralised level, draws up the accident report** for the Group companies with the intention of providing a useful informative contribution towards the prevention of risks in the work sphere. The procedure used to analyze accidents complies with the Guidelines for Classifying Accidents, drafted by Federutility and in compliance with the **UNI 7249/95 standard**, in relation to INAIL parameters and the ESAW (European Statistics of Accidents at Work) indications.

During 2012, the **figures relating to accidents disclosed lower values with respect to the previous two years**: on the whole during the year, **268 accidents** were reported, **52** of which **in itinere** (in other words while travelling to/from work/home), which led to **9,947 days of absence due to accidents**. The figures relating to the **frequency and severity indices** also reported **lower values** with respect to 2011 (see chart No. 28).

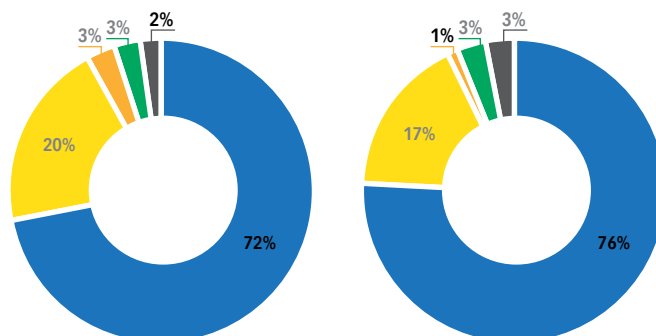
With regard to the **breakdown** of the accidents by **gender**, during 2012, 255 accident events (equal to 95% of the total) involved male resources, mainly blue-collars, and 13 (equal to 5%) female workers, all of which white-collar/administrative staff.

Observing the **breakdown of accidents by company** grouped together by business area, in general we can see a **decrease in accidents**, with respect to 2011, **in the networks, energy and waste management areas, stability in the water area and a slight increase in the corporate and services area** (see the figures in chart No. 27). The majority of accidents occurred in Acea Ato 2 (63 accidents) and Acea Distribuzione (46 accidents), the two Group operating companies inherently more exposed to the risk of accident due to the type of work carried out.

In 2012, as already mentioned, the **new Workers' Safety Representatives (RLS) were appointed**, to whom current legislation grants powers of intervention, and related responsibilities, on the risk assessment and prevention system. The appointment became effective as from 1 September and the duration of the office of

the RLS is envisaged as 3 years with forfeiture at the end of the period. The advisory meetings with Workers' Safety Representatives (RLS) were held regularly, thereby ensuring the involvement of the workers, in accordance with the matters envisaged by Article 35 of Italian Legislative Decree No. 81/08.

**CHART NO. 27 - BREAKDOWN OF ACCIDENTS BY BUSINESS AREA (2011-2012)**

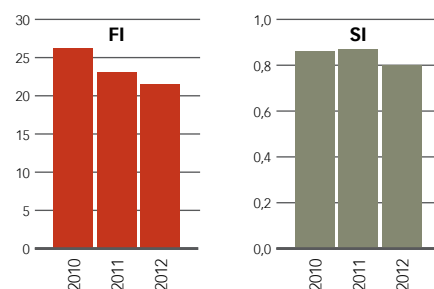


Company	2011	2012
	accidents (No.)	accidents (No.)
water	204	203
networks	58	46
energy	9	4
waste management	9	7
corporate and services (Acea SpA, Laboratori)	6	8

NB: The water sector includes 14 companies, the networks area 3, the energy area 5, the waste management area 5 and the corporate and services area 2.

**CHART NO. 28- INDUSTRIAL ACCIDENTS AND FREQUENCY AND SEVERITY INDEXES (2010-2012)**

	2010	2011	2012
accidents (No.)	324	286	268
total days of absence	10,627	10,722	(**) 9,947
hours worked	12,350,921	12,351,212	(*) 12,477,638
<b>frequency index (FI) (No. acc. x 1,000,000/working hours)</b>	<b>26.23</b>	<b>23.16</b>	<b>21.48</b>
<b>severity index (SI) (days absence x 1,000/working hours)</b>	<b>0.86</b>	<b>0.87</b>	<b>(**) 0.80</b>



(\*) with regard to the companies Acque, Acque Industriali, Acque Servizi and Crea Gestioni the figure for the hours worked is the result of estimation.

(\*\*) during 2012, there was one demise which occurred within Acque Servizi, not shown in the table since it is still being ascertained by INAIL, which, if recognised, will equate to 7,500 conventional days of absence and would take the severity index to 1.40.

Acea **sets itself the objective**, also beyond legislative fulfilments, **of increasingly raising the awareness of the human resources with regard to safety aspects** by means of the **disclosure** of procedures, documents and legislative updates **on the company**

**intranet** and the **provision of specific training courses**. The corporate purpose is in fact to manage to create greater awareness and a growing and widespread safety culture as an integral part of the organisation (also see *Training and development of the human resources*).

## Health monitoring

### THE BOUNDARIES

The information and data presented in the section Health monitoring refers to: Acea SpA, Acea Reti e Servizi Energetici, Acea Distribuzione, Acea Ato 2, LaboratoRI, Acea Energia holding, Acea Energia, Acea Produzione, Acea8cento, Aquaser, Solemme, A.R.I.A., SAO, Acea Servizi Acqua, Crea Gestioni, Ecogena.

**Health monitoring** activities are seen to by an **internal structure** which operates in compliance with current legislation (Article 41 of Italian Legislative Decree No. 81/08) and **cooperating with outside experts**. The health of the human resources is in fact monitored with the support of competent health professionals, formally appointed, who subject the employees to the following types of check-up:

- pre-employment;
- preventive or following changes in duties;
- periodic, on the basis of the risk assessment plan;
- upon the request of the worker;
- in the event of termination of the employment relationship, if envisaged by legislation;
- prior to resuming work, following absence due to health reasons for a period longer than sixty consecutive days.

Furthermore, workers exposed to specific risks are guaranteed a targeted plan of medical check-ups.

Within the sphere of activities for safeguarding the psychological and physical health of workers, **qualified doctors cooperate** with **employers** and **Protection and Prevention Service Officers to assess the risks** to which employees are exposed, **necessary for drawing up the relative health monitoring plan**.

During 2012, **1,935 check-ups** were carried out; the relative costs<sup>83</sup> amounted to **around Euro 187 thousand**.

The presence and activities of a **First Aid medical centre** also guarantee company employees and visitors first aid in the event of ailments not requiring hospital treatment.

<sup>83</sup> The costs relating to periodic and pre-employment check-ups refer to the reporting boundaries of the section.

## Capitalising on human resources and communication

### THE BOUNDARIES

The information and data presented in the section *Capitalising on human resources and communication* concerns: Acea SpA, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Reti e Servizi Energetici, Acea Ato 2, Acea Ato 5, LaboratoRI, Acea8cento, Acea Energia holding, Acea Energia e Acea Produzione.

The **human capital** expressed by the know-how and expertise of the individuals is a fundamental company asset, therefore, identifying the **objectives to be achieved** and agreeing on **the formalities by means of which to achieve them** means increasing the value of the Acea Group. **The plans for developing and capitalizing on individuals** are defined by means of

a system for the assignment of objectives that comply with corporate policies.

The **new Human Resources Management System**, implemented **in 2012**, represents an important instrument available to the Group for enhancing the performances thereof. (see related box).

### THE NEW HUMAN RESOURCES MANAGEMENT SYSTEM: THE LEADERSHIP MODEL

The new Human Resources Management System has been conceived with the aim of increasing the ability to excel in performances by means of creating a new Group culture.

The heart of the new management system is the **Group Leadership Model** which describes the key elements necessary for interpreting as fully as possible the mission, the Acea values and the skills which the manager must have and develop to make the most of the human capital.

This model underlies all the processes which regulate the life cycle of the employee - selection, performance management, training, career plans, compensation and meritocratic plans etc. - and is based on **two macro-areas of values**: the first area is linked to the **values necessary for guiding the Business/Change** - Love competition; Think outside the box; Achieve results and make things happen; Act rapidly, decisively and promptly; Simplify -, the second is linked to the **fundamental values guiding the Individuals** - Guide the individuals acknowledging them the ability to act; Accept your responsibilities, Further the value of responsibility; Generate optimism knowing how to recognise success; Create highly performing teams, knowing how to recognise talent; Share information transparently. The two macro-areas find a connection with the transversal conduct which furthers **equity** and **accountability**.

Each manager is required to investment in themselves, so as to grow, develop, act and further the conduct which characterises the Leadership Model: the sharing of a common culture is in fact the first driving force for a change which generates value for the Group.

During 2012, the **new Leadership Model was established** and **a structured training plan created** addressing top management, executives and middle managers (see *Training and the development of the human resources*).

In 2013, the project will be continued with the layout and creation of a new plan of targeted activities and initiatives.

Furthermore, during the year a **system for gauging the organisational positions** was launched, a different way of looking at the Group staff organisation chart, which will make it possible to **recognise the effective contribution of the individuals**, within their in-house positions, **towards the creation of business results**; it will accompany the new Human Resources Management System permitting a more complete and effective management of the human resources in the development processes, in the remuneration and

meritocratic policy, in internal mobility, etc.

In order to more effectively oversee the infragroup lay-off dynamics and the correct allocation of the resources on the basis of the business requirements and in observance of the professional skills of the employee, during 2012 the collation of the updated resumes of the employees was launched, by means of centralised databases; during the initial phase, the updating involved the Group's executives and middle managers.

## Remuneration

Employees' **salaries** (excluding executives and top management) are established in accordance with the related **National Collective Labour Agreements**. **Average gross remuneration per head by role** disbursed during 2012 disclosed increases when compared with 2011, for all the categories: 5.9% for

middle managers, 1% for blue-collar workers, and 3.3% for white-collar workers.

**Total average gross remuneration per head** came to **Euro 40.1 thousand**, compared with Euro 39.1 thousand in 2011 (+2.6%); also including the executives, it comes to Euro 42.6 thousand.

**TABLE NO. 62 – AVERAGE GROSS REMUNERATION BY ROLE (2011-2012)**

(in thousands of Euro)	middle management	% change	white-collar workers	% change	blue-collar workers	% change	total	% change
2011	63.4		37.8		35.8		39.1	
2012	67.2	5.9%	38.2	1%	37	3.3%	40.1	2.6%

Analysing in a gender perspective the **ratio between "basic salary" and gross effective remuneration** - in other words considering the presence of "fixed" elements and "additional" elements in the calculation of the total amount of the salary - it is revealed that **in 2012 this ratio was equal to 91.8% for female staff and 79.5% for male staff**. The difference between the two values can be explained by the fact that the activities remunerated by a higher additional amount, such as on-call, shift work, allowances, overtime, are often covered spontaneously by male workers (for example: work carried out by operational emergency service engineers who work 24 hour shifts).

The **remuneration of the members of the Board of Directors is established by the shareholders' meeting** while the additional fee for the members of the Committees established within the Board of Directors is established by said Board upon the proposal of the Appointments and Remuneration Committee and having consulted the Board of Statutory Auditors. So far, a significant part of the remuneration of the executive directors and executives with strategic responsibilities is linked to the economic results achieved by the company. Furthermore, a long-term monetary incentive is in place, relating to the three-year period 2010-2012, for the Chief Executive Officer and senior management of the company, with reference to the Total Shareholder Return and the appreciation of the value of Acea stock with respect to a basket of comparable companies. The fees received by the individual members of the

management and audit bodies, by the general manager and by the executives with strategic responsibilities of Acea SpA are illustrated in the *Remuneration Report*<sup>84</sup>.

## Incentive systems

The **incentive system** applied within Acea aims to **pay employees** (white- and blue-collar workers) **an amount according to the achievement of quality business performances**. Accordingly, tools linked to the salary review policy, for the set and/or variable elements in salaries are used: raises, promotions and professional growth, payment of ad personam monetary amounts, such as one-off payments.

For all the staff in service qualified as middle management, white and blue-collar, also under a part-time, temporary, induction or apprenticeship contract, a bonus system is envisaged as a tool for sharing in the company results under the form of a **"results bonus"**, paid annually according to the grade and hours worked throughout the year. This payment is calculated based on indicators concerning profitability, productivity, efficiency and quality delivered and perceived (in fact, an indicator regarding the level of customer satisfaction is also taken into account). Specifically, with reference to Acea8cento, the Group company which sees to the customer relations telephone channels, the quality indicators provided which derive from the surveys carried out using the *mystery calling* technique, in other words by means of the simulation of telephone calls by customers to the Acea call centre,

<sup>84</sup> The Remuneration Report, which is independent, is available on-line on the company website.

are used for the purpose of developing the objectives achieved by the call centre by means of a bonus system.

**During 2012**, within the sphere of the **new Human Resources Management System**, the **guidelines were defined for the meritocratic policy** along with the **Management By Objectives (MBO)** system based on the development of the human resources on a consistent basis with the achievement of the assigned objectives, the assessment of the individual performance and the distinct skills.

The new MBO system focuses on the **overall assessment of the individual**: the objectives, on final balance, are the result of the **performance achieved** and the **conduct adopted** for achievement of the same, expressed by a map of values defined in the Leadership Model.

In detail, the bonus system adopted for **executive and middle-management**, as well as **top management**, involves:

- **MBO** (Management By Objectives): this variable payment is calculated in proportion to the extent to which individual, corporate (company or sector) and Group targets set at the beginning of the year are reached, including assessment of organisational conduct. The joint interpretation of the assessment of the **performance** and the **leadership** leads, for each resource considered, to the positioning within the assessment scheme. In order to ensure a standardisation of the assessment criteria, the positionings in the scheme of the individuals assessed are reviewed at Group Division/Company/Area level by means of a calibration mechanism. For the disbursement of the effective bonus, the mechanism associated with the MBO envisages a system of "access gateways" represented by the Group objectives: the achievement or otherwise of these objectives will affect the remuneration to a different extent depending on the organisational level of the resource assessed.
- **2010-2012 LTIP** (Long Term Incentive Plan): a monetary incentive for Senior Management, commensurate to the gross annual remuneration (RAL) and subordinate to the level of achievement of **economic-financial** objectives established by the Appointments and Remuneration Committee and those **linked to the appreciation of the stock on the stock market** and the consequent increase in the Group's value

over time. The amount may be disbursed in addition to the incentive linked to the MBO.

A number of **benefits** are also envisaged, such as additional monthly wages, luncheon vouchers, a discount on the electricity tariff (for just employees taken on before 9 July 1996), benefits received by employees via the Staff Recreational Association (CRA), supplementary health insurance, a supplementary pension fund for this sector - Pegaso Fund for employees and Previndai Fund for executives - and an agreement with the Monte dei Paschi di Siena Bank which envisages concessionary conditions. There are also additional benefits for executives, such as the use of a company car and fuel expenses.

With the introduction of the new system for gauging and assessing the organisational positions, launched in 2012, the bonus system was structured in such a way as to ensure the correct balancing between fixed-remuneration and the organisational position covered by the resource in the Group.

As of 31 December 2012 the amount of the balance sheet liabilities for **employee leaving indemnities and other defined-benefit plans** amounted to Euro 105.3 million, presenting an increase of Euro 500,000 with respect to 2011. Among the components, in detail, there was a drop in the leaving indemnity of around Euro 900,000, due to the leavers under voluntary lay-off from Acea Ato 2 and Acea Distribuzione progressively being depleted, and the higher additional monthly amounts, for Euro 500,000, for the re-inclusion within Acea of employees previously placed with the business segment rented to the company Marco Polo.

#### **Defined-contribution pension funds**

Two supplementary pension funds are envisaged for Acea employees, **Previndai** and **Pegaso**, the first reserved for executives and the second for non-executive human resources employed under the CCNLs signed by Confservizi for public utility service companies (electricity and gas-water).

The Pegaso Fund is jointly managed by Federutility - the national organisation representing local public service companies who operate in the water, electricity and gas sectors - and by the workers' trade union associations Filcem-Cgil, Femca, Flaei-Cisl, Uilcem-Uil which

established the same.

Group **employees<sup>85</sup> enrolled in the Pegaso Fund** in 2012 numbered **2,536**. The figure is lower than that in 2011 (3,109) since in the previous year the boundaries also included the employees of Gdf Suez, no longer in the Acea Group, and the employees of Umbra Acque, today managed autonomously with regard to Pegaso.

Boundaries being the same (2012/2011), there was an overall decrease of 194 members, involving a significant reduction in Acea Distribuzione (- 63 positions) and Acea Ato 2 (- 77 positions) as a consequence of the exit of staff (retirement, lay-offs and redundancies).

During 2012, Acea transferred around Euro 4.2 million in employee leaving indemnities to the Pegaso fund and

paid over Euro 1.21 million as a supplementary company contribution.

As from this year, for the purpose of providing more in-depth information, Acea employees who are members of Pegaso are presented separately by gender, age bracket and professional grade (see tables No. 63 and 64). Thus, a different percentage in male and female enrolment in the Fund is revealed, respectively 80% and 20%. By contrast, comparing the members with the entire number of Acea employees (see table No. 57), one can note a greater participation in the Pegaso Fund by workers between 40 and 55 years of age, with a percentage of members which varies between 55% and 60%.

**TABLE NO. 63 – ACEA'S EMPLOYEES - PEGASO: GENDER AND AGE BRACKET (2012)**

	men	women	total
≤ 25 years	6	2	<b>8</b>
> 25 years and ≤ 30 years	60	17	<b>77</b>
> 30 years and ≤ 35 years	129	44	<b>173</b>
> 35 years and ≤ 40 years	210	46	<b>256</b>
> 40 years and ≤ 45 years	368	122	<b>490</b>
> 45 years and ≤ 50 years	447	99	<b>546</b>
> 50 years and ≤ 55 years	397	115	<b>512</b>
> 55 years and ≤ 60 years	362	64	<b>426</b>
>61 years	42	6	<b>48</b>
<b>total</b>	<b>2,021</b>	<b>515</b>	<b>2,536</b>

**TABLE NO. 64 – ACEA'S EMPLOYEES - PEGASO: GRADE (2012)**

white-collar workers	1,539
blue-collar workers	776
middle management	221
<b>total</b>	<b>2,536</b>

The net assets of the Pegaso fund intended for benefits reached Euro 567 million in 2012 (Euro 470 million in 2011), an increase of 20%. The **Balanced** and **Dynamic** segments closed positively at 0.38% and 0.57%, respectively, while the **Guaranteed** segment disclosed an insignificant decrease (-0.02%). The return on leaving indemnities (TFR), used as a benchmark, came to 0.30% in 2012.

**TABLE NO. 65 – RETURN ON THE VALUE OF THE UNITS OF THE PEGASO SEGMENTS AND THE EMPLOYEE LEAVING INDEMNITY AS OF 31 DECEMBER 2012**

type of investment	pegaso fund segment return	leaving indemnity return
guaranteed	-0.02%	
balanced	0.38%	0.30%
dynamic	0.57%	

Source: 2012 Pegaso figures

85 The figure refers to employees of the companies: Acea SpA (which also includes the human resources of the company Marco Polo - Acea branch), Acea8cento, Acea Ato 2, Acea Ato 5, Acea Distribuzione, Acea Reti e Servizi Energetici, Acea Energia holding, Acea Energia, Acea Produzione, Laboratorio, Crea Gestioni, Sogea, Gesesa, Solemme, Acea Gori Servizi, A.R.I.A., Aquaser, SAO.

## Staff assessment systems

One of the main processes envisaged by the Human Resources Management System is **Performance Management**: the process for individual assessment addressing Group executives and middle managers which measures, assigning equal value, the **performance** achieved – or rather the achievement of the assigned objectives – and the **leadership** – in other words the ability of act by means of organisational conduct consistent with the reference values system.

The **phases** envisaged for the **assessment** of the individuals involved in the process are two: the first, which is the responsibility of the manager directly in charge of the individual, involves the joint assessment of **the performance** and the **leadership** by means of a specific scheme, the **second phase**, carried out within the sphere of internal discussion groups so as to more fully measure the assessment of the individual, aims to ensure **standardisation and comparability** in the assessment criteria. The final objective of the process is in fact to gain a natural distribution of the population affected by the system at Group level.

The final assessment of the individual is decisive for identifying the development and training programmes and the most suitable incentive and remuneration systems. In order to support the correct implementation of the new assessment process, the following support instruments have been created and distributed to the managers:

- the **Performance & Leadership Manual** aimed at making awareness of the process accessible and enhancing the individual responsibilities of the individuals involved;

- the **Group information System**, provided to support the Performance Management process, it permits the evaluation team to autonomously carry out all the activities linked to the assignment of the objectives and the periodic survey of their state of implementation and of the leadership, thereby permitting a more efficient handling of the activities stemming therefrom.

In 2012, Group executives and middle managers were subject to assessment, equal to 10% of the overall workforce.

Partly in consideration of the change introduced by the new values system and by the performance & leadership model, during 2012 Acea Distribuzione took part in the HRO (High Reliability Organization) project, launched by Tor Vergata University, aimed at measuring the organisational reliability of the company, involving the executives and middle managers, equal to 5.3% of the workforce, by means of sending out targeted questionnaires.

The purpose of the research was to **provide a picture of the organisational reliability** (HRO) of Acea Distribuzione; study an implementation plan for increasing the level of the same and provide scientific contribution to literature on this subject. The analysis carried out made it possible to develop the knowledge of the company processes in terms of optimum balance between mindful activities (reasoning-based) and mindless activities (mechanical) with the aim of putting together “resilient” organisational models; in other words those able to make the company capable of effectively responding to the operational challenges which the reference market lays down.

## Training and development of the human resources

### THE BOUNDARIES

The information and data presented in the section *Training and development of the human resources* refers to: Acea SpA, Acea Reti e Servizi Energetici, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Ato 2, LaboratoRI, Acea Ato 5, Gori, Acea Energia holding, Acea Energia e Acea Produzione, Acea8cento, Acque, Publiacqua, Acquedotto del Fiora, Crea Gestioni Srl, GEAL, Sogea, Umbra Acque, Aquaser, Innovazione Sostenibilità Ambientale (ISA), Kyklos, Solemme, A.R.I.A and SAO..

The figures relating staff training, illustrated below, have been partially extended for 2012, by means of the inclusion of the data relating to some of the training courses handled by Acea SpA which involved employees from the companies Innovazione Sostenibilità Ambientale (ISA), Acque, Publiacqua, Acquedotto del Fiora, Umbra Acque and Gori.

The ability of the company to act competitively is strictly linked to the quality and **professionalism of its human capital**. Training activities, tasked with the qualification and professional growth of the individuals, therefore represent a **strategic lever** available to the company for increasing the level of their performances and, consequently, their competitive ability.



Acea SpA's **Human Resources and Organisation Division establishes policies, guidelines and training channels for the leading Group companies; it manages** in a centralised manner, on behalf of the Group companies, **managerial training**, creating training courses addressing top and middle management for the purpose of consolidating the management and conduct-related skills, **advance training**, involving highly qualified training courses organised with partners of excellence, and **transversal training**, relating to numerous training spheres common to the Group companies (linguistics, IT, sector legislation, value codes, privacy protection, administrative liability, induction-related, for apprentices), defined after the joint survey of the needs.

The operating companies autonomously handle the **technical-specialist training**, closely linked to the professional up-dating of specific skills and the training for professions, and **safety training**, defined on the basis of legislative obligations. If, during the year, unplanned training requirements emerge within the sphere of centralised training, the individual companies activate supplementary training courses, defined on a consistent basis with the guidelines provided by the parent company.

The **training process** originates from the analysis of the training needs, which - operatively - translates into the **definition of the training requirements**, the **creation of a training plan**, the **provision of courses** and the **checking of the level of learning** of the students, both in terms of alignment with set targets and in terms of satisfaction with training received. This latter aspect is surveyed by means of providing an assessment questionnaire on the course (subjects dealt with and teaching equipment) and on the tutor (contents, methods and training ability).

Training is provided by means of various methods: **traditional** - in classrooms with face-to-face lessons or shadowing -, **outdoor experience** - encouraging effective experiences outside the workplace - and **on-line** - by means of use of the e-learning platform.

As a result of adoption of the new Human Resources Management System, **during 2012 training activities covered a central role** supporting the cultural change, efficiently conveying the new values, objectives and conduct adopted by the Group.

In detail, during the year **training action** was planned and carried out on the new system introduced addressing all the **directors, executives and middle managers** of the Group (see related box).

## MANAGERIAL TRAINING

In order to support the introduction of the **new Human Resources Management System**, training initiatives were achieved addressing all the Group directors, executives and middle managers. The first editions were focused on the sharing of the **principles** and the **values expressed in the new system**; subsequently, other sessions were provided focused on the **performance & leadership** model, aimed at illustrating the parameters for the assessment of the objectives assigned and the formalities for providing feedback.

Training was provided under the form of **training sessions, via outdoor experience**, in order to encourage the development of the management capabilities of the staff and the team, as well as **theme-based events**, with the testimony of external speakers who have offered interesting points of reflection on the application of the new values and principles.

Analysis of the training requirements carried out in 2012 by Acea SpA at the Group companies revealed the need to define detailed and refresher courses in the language (English), IT sphere, on contract legislation and the handling of credit. Furthermore, together with Roma

Tre University, during the year the layout of an advanced training course regarding environment legislation for Acea Group employees was seen to. The course, launched in 2012, will be provided mainly during the first half of 2013 (see related box for details).

### ACEA AND ROMA TRE UNIVERSITY: "ENVIRONMENTAL LEGISLATION"

Legislative production in the environmental sphere has a significant impact on the corporate businesses; Acea has therefore deemed it useful to enter into a framework agreement with the faculty of **Jurisprudence at Roma Tre University**, which has permitted the planning and launch of an **advanced training** course on **environmental legislation**. The training course, entitled ***I giovedì dell'ambiente***, deals with significant legal aspects for the Group such as environmental law; environmental and landscape permits; pollution, the defence of the land and protection of the water, the integrated water service; waste, environmental offences, anti-trust legislation; and will be active for the two-year period 2012-2013 with the involvement of 212 participants, covering a total of 17 days of training.

During 2012, Acea Energia launched a programme for the on-going improvement of its performances (see related box for details).

### ACEA ENERGIA AND THE ON-GOING IMPROVEMENT PROJECT – MICO

In 2012, Acea Energia launched the MICO project with the aim of adopting a process for on-going improvement of the corporate processes by means of the introduction of a specific method finalised at sorting out problems and eliminating waste and inefficiencies. A number of areas of improvement were identified ("worksites" and, in an initial phase, the project was implemented on a group of "pilot worksites", with the training of around 40 employees, the identification of the managers of each worksite and three resources acting as "enablers" of change and guarantors for the continuation of the improvement programme. Further development of the same is in fact envisaged, so as to involve the entire organisation, via the spreading of a culture of excellent performance and lean management techniques.

In order to enhance the use of flexible training forms, available to the entire Group without particular space or time-related restrictions, **Pianetacea was created in 2012**: the new **Group multimedia platform** dedicated to the **on-line training** of the employees accessible directly from their personal workstations (see related box). Further to the issue of the new Group Ethical Code, which took place in April, the training aimed at the **sharing of the principles and ethical values set forth in the Code** was **one of the first courses**

**launched on the platform: intended for 3,466 employees**, 2,120 of which had already benefited from the same between October and December while the remaining part can do so by the end of February 2013. The divulgation of the new values code also took place by means of publication on the company intranet and on the institutional website. With reference to new recruits, within the sphere of induction training units dedicated to the corporate mission, the values codes and corporate social responsibility are always envisaged.

### PIANETACEA, THE ACEA GROUP'S NEW E-LEARNING PLATFORM

**Pianetacea** is the new platform dedicated to the training of employees via e-learning. During on-line fruition of the same, involvement and attention are aided by the introduction of agreeable contents and instruments such as cartoon Ads, e-mail teasers, forums and Wiki. The launch of Pianetacea took place in October at the same time as the launch of **three training courses** addressing all employees which concerned the 2012 edition of the **Group's Ethical Code**, the **administrative liability of bodies** (It. Leg. Decree No. 231/01) and **protection of privacy**, organised in collaboration with Acea SpA's Audit and Safety and Protection Divisions.

In **total, 6,556 participants** were trained, involving an average rate of completion of 65%. The new platform will be used in 2013 to provide support for traditional classroom training; in fact, thanks to the use of technologies developed within the sphere of the LMS (Learning Management System) platform it will be possible to computerise part of the training process at present handled outside the system (satisfaction questionnaires, entry tests, etc.).

Additional **training measures** carried out **within the Group companies** during 2012 concerned:

- **mandatory training on safety** (Safety coordinators, Site Supervisors/Assistants, Fire service representatives, etc.) and on **safety management systems**;
- training on **environmental management systems**;
- training on **energy management, energy management in buildings and energy certification** care of Acea Distribuzione;
- **training regarding biological risks** for LaboratoRI employees;
- training **with regard to legal matters and waste management** for a number of resources of Aquaser;
- training on the possible impacts of the **regulations concerning waste aspects entrusted to the AEEG** for Acea Ato 2;
- training for the **internal auditor**, provided at the time of the launch of the procedure for obtaining the integrated Quality, Environment, Energy and Safety management system care of Acea Ato 5;
- training for **operations staff** assigned to the waste selection, disposal and treatment plant of SAO;
- training on **credit management**;
- training concerning **tender contract legislation**;
- managerial training, with the **team coaching project** addressing management of Acea Energia aimed at developing team efficacy.

The company's membership of interprofessional bodies for on-going training, such as **Fondimpresa and the Fondo For.Te**, is an additional instrument for increasing the skills of company resources.

Specifically during 2012, via the **Steps** project presented by Acea SpA and financed by the Fondo For.Te, it was possible to provide transversal training, common to all the Group companies, sharing the training experiences, creating cost efficiencies and increasing the budget dedicated to these activities.

Another project which benefited from the funding of the Fondo For.Te was presented by the companies in the energy area - Acea Energia, Acea Energia holding and Acea Produzione – with the aim of training human resources with regard to: organisational development, technical-professional skills, managerial and process-related skills. Furthermore, during the year a number of Group employees benefited from training seminars, jointly financed by Fondimpresa, aimed at analysing legislation on tenders relating to aspects of the traceability of financial flows and the fulfilments associated with the procedures for awarding public contracts.

Training activities were particularly intense during 2012: in the presence of **506 training courses provided**, proposed for a total of **1,001 editions**, the **number of participants** rose to **14,669** units (4,684 in 2011), reporting an **increase of more than 300%** with respect to 2011. **Total training hours** provided also increased by 33%, reaching **94,302 hours** (70,898 hours in 2011).

**Training hours per head<sup>86</sup>** fell to **6.4** (15.1 in 2011), due to the greater number of participants included on training courses activated during the year, in particular via the e-learning platform Pianetacea.

**Costs incurred** for providing the courses, excluding didactic planning and setting up the areas in which courses were held, amounted to around **Euro 1,035,225** in 2012, the majority of which invested in training for middle managers and executives further to the introduction of the new Human Resources Management System (see table No. 66 and chart No. 29).

<sup>86</sup> The indicator has been created by placing in relation the number of hours attended (94,302 in 2012) and the total number of participants (14,669 in 2012).

**TABLE NO. 66 – TRAINING COURSES AND COSTS (2011-2012)**

type of course	courses (No.)		editions (No.)		participants (*) (No.)		participants (*) (No.)		costs (Euro)	
	2011	2012	2011	2012	2011	2012	men	women	2011	2012
advanced training	0	3	0	3	0	59	33	26	0	13,340
IT	26	29	75	42	452	322	225	97	23,976	11,807
induction of new recruits (**)	46	15	29	13	90	98	68	30	17,020	3,600
languages	3	4	14	28	18	191	112	79	12,332	68,179
technical-specialist	237	221	546	321	1,528	2,112	1,371	741	108,941	167,931
managerial	6	18	7	33	105	481	359	122	71,191	678,571
administrative-managerial (**)	26	53	177	143	1,177	1,741	1,215	526	31,754	19,012
Italian Legislative Decree No. 231/01, Ethical Code, privacy (***)	50	4	100	4	600	6,556	4,339	2,217	16,000	18,300
safety (***)	175	159	208	414	714	3,109	2,756	353	60,761	54,485
<b>total</b>	<b>569</b>	<b>506</b>	<b>1,156</b>	<b>1,001</b>	<b>4,684</b>	<b>14,669</b>	<b>10,478</b>	<b>4,191</b>	<b>341,975</b>	<b>1,035,225</b>

NB: the figures relating to 2012 also include the data on training handled centrally by Acea SpA for the companies ISA, Acque, Acquedotto del Fiora, Publiacqua, Umbra Acque and Gori; the figures relating to A.R.I.A. and SAO have been estimated.

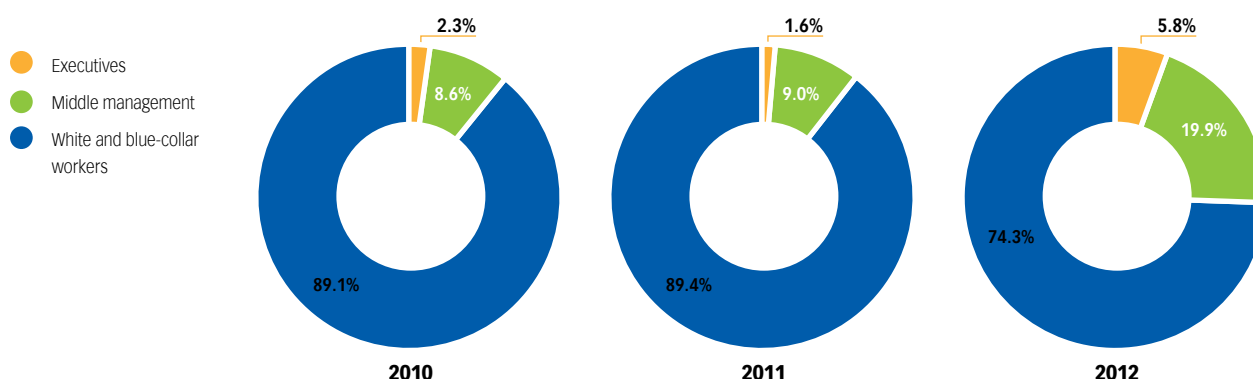
(\*) "participants" means that the employee attending a training course falling under a specific type of training is reckoned just once. The gender figure was introduced for the first time in 2012.

(\*\*) training provided for new recruits and administrative- operational training is carried out mainly or exclusively via the teaching resources within the Group.

(\*\*\*) the 2011 figures relating to training on Italian Legislative Decree No. 231/01, Ethical Code, privacy and safety issues presented in total within a sole type of training, on a consistent basis with respect to 2012, have been re-allocated to the two different training types and recalculated by means of estimation.

With regard to **female human resources**<sup>87</sup>, **women participants** on training courses came to 4,191 (28.6% of the total).

**CHART NO. 29 – BREAKDOWN OF TRAINING HOURS BY ROLE (2010-2012)**



NB: training hours by role for the companies A.R.I.A. and SAO are the result of estimation.

<sup>87</sup> The 2012 gender figures for the companies A.R.I.A. and SAO are the result of estimation.

During the year, Acea SpA carried out a reconnaissance of all the agreements and conventions with research and training bodies active within the Group, taking steps to draw up framework agreements which made it possible to achieve cost efficiency in relation to the expenditure of the individual companies.

In detail, thanks to the agreement entered into with the Consorzio ELIS for advanced professional training, a number of Acea Distribuzione and Acea Ato 2 employees took part in the Energy & Utilities project within the sphere of the course intended for professionals (SOM Masters – Service Operation Management professional course).

Acea Distribuzione also took part in the SID (Sharing for Innovation and Development) Project, an assisted development programme of innovation projects which exploit the stimulus originating from sources outside the company (customers, suppliers and companies from other business sectors). Five young graduate employees took part in the course. The project involved individuals from the companies sponsoring the programme, who worked on a standardised process for the development of a new product and, with the aid of expert teaching staff, achieved a high innovation content result.

### **Collaboration with universities and high schools**

Acea develops forms of **partnership and collaboration with universities**, takes part in study activities, makes itself available for **encounters between companies and students**, enters into **agreements** for the promotion of training workshops and is active within the sphere of university masters courses providing teaching activities with the support of company staff (see sections *Institutions and the Company* and *Environmental issues*).

Via the agreement entered into with Consorzio ELIS, in 2012 Acea Reti e Servizi Energetici and Acea Distribuzione took part in the second edition of Network Scuola Impresa, with the aim of establishing a **network for discussion and permanent exchange between schools and businesses**, contributing towards divulging the Acea brand. The project envisaged a period of joint didactic planning between school teachers and company engineers, aimed at the creation of programmes provided in high schools, flexibly, directly by company resources.

During 2012, Acea supported a number of training projects, university Masters courses and post-degree training by means of loans and professional contributions (teaching activities, work experience, etc.), including:

- the **Masters course in Management and corporate social responsibility** at the Faculty of Social Sciences, San Tommaso Pontificia University (Angelicum) - disbursing two scholarships to cover the registration fees, and offering this opportunity to the offspring of Group company employees by way of priority;
- the **Masters course in Management and Regulation for Sustainable Energy**, held at Luiss University in Rome, on completion of which two new graduates were invited to attend work experience care of Acea Distribuzione;
- the **Masters course in Environment management and control: Efficient management of the sources**, organised by the Scuola Superiore di Studi Universitari Sant'Anna di Pisa, with the teaching staff of Solemme;
- the **Masters course in "Management of energy and the environment"**, organised by the Sole 24 Ore Business School, with the teaching staff of Acea Ato 5;
- the Masters course in **Green management, energy and corporate social responsibility** organised by Bocconi University in Milan, with the teaching staff of the parent company.

**Aquaser**, in collaboration with **Università La Tuscia di Viterbo**, during 2012 furthered a pilot project for the sustainable production of bioenergy, biofertilizer and water from organic waste within the woodlands of the City of Mexico (see the related box in *Environmental issues*); a recent graduate in Agrarian Sciences and technologies took part in the creation of the project working alongside company resources.

During the year, Kyklos collaborated with the **Bio Campus Foundation** for the organisation of seminars and training days on the subject of composting, with specific focus on the recovery of waste, at an agrarian institute in Latina.

Group companies activated a total of **5 professional internships for students of high schools, universities or new graduates** and **14 training work experience encounters**.

In conclusion, as is by now customary for some years, within the sphere of the **school-work alternation**

**project**, Acea Ato 2 held 1 internship, hosting 21 work experience students from a Roman technical institute, who were able to gain awareness of the water industry via visits to purification and drinking water treatment plants, water centres, the remote control unit and via training sessions on the Acea Group, with specific reference to the companies which operate in the water industry.

In conclusion, Acea hosted visits from school children at the main Group installations, (power plants, treatment plants, aqueducts, waste to energy installations, etc.).

Confirming the effective opportunities which the company offers to new generations, during the year **Acea permanently took on 30 youngsters** previously under atypical contracts (collaboration, project) or work experience.

### Internal communication

Internal communication within Acea represents an essential factor for turning to account the corporate efficiency and the growth of the human capital, furthering the cultural change, accompanying the process for the integration and involvement of employees thereby encouraging a satisfactory working climate.

Acea communicates daily **with its employees**, first and foremost via the company **intranet** portal. The internal company portal in fact **conveys news and notices** addressing employees and on the same it is possible to:

- obtain the **main information on the companies and the Group's human resources**;
- access the internal telephone directory;
- consult official documents (financial statements, value codes, policies, etc.);
- get hold of company procedures and regulations;
- access the organisational provisions of each Group company;
- read the daily press review and press releases.

On the intranet, numerous **detailed sections** are also available, on Safety, Quality, Training, IT, Reference legislation (such as Italian Legislative Decree No. 231/01) and a job posting section which makes announcements relating to positions open within the company visible and accessible to employees, subject to registration, also indicating the necessary requirements for sending in one's application accompanied by a curriculum vitae.

The intranet site also has a banner which discloses the most important news of the day.

During 2012, the company portal was enhanced with a new section entitled "**Persone Acea**", dedicated to the new Human Resources Management System, which will be progressively implemented and via which at present it is possible to consult the Group values, the Leadership Model and handle one's resume; a specific area for managerial valuation is present in the section.

Furthermore, in order to encourage the spreading of new Group values, during the course of the year targeted visual communication action was developed such as the **display in the main company premises of posters** recalling the Group values and the distribution to the executives of **desk flyers containing the new company values**.

Acea SpA's Internal Communication Unit then saw to the creation and distribution to all the directors, executives and middle management of the Group of a DVD recalling the communication events and the formative experience of the past. Four events were organised for the divulgence of the new Human Resources Management System, care of the Fornace conference centre, Castel Gandolfo, Ostia and Ficule, intended for the directors, executives and middle managers of the Group which envisaged the presentation of the project by the Director of the Human Resources and Organisation Division, the provision of experience-related training understood as a metaphor for team building and the intervention of testimonials from the sporting world which conveyed a message consistent with the concept of team work.

In conclusion, internal communication activities saw to the **suitable disclosure of numerous company initiatives** such as the **launch of Pianetace** - the new platform for the training of employees via e-learning -, the **up-dating of the company column** present on the intranet site with the inclusion of photos of the employees, the launch of the **Acea Per Noi** offer activated by Acea Energia in favour of Group resources with a discount on the price of electricity and gas, the organisation and the distribution to employees of **Christmas gifts**, the widespread communication of the announcement of a Masters course for which Acea has disbursed two **scholarships** to employees' children; the Rome 2012 event - the **1st company football tournament**, and the **prize-giving ceremony for employees** who distinguished themselves due to their availability and sense of responsibility during the **snowfall emergency** which affected Rome and the surrounding area in February.

## Social activities

### THE BOUNDARIES

The information and data presented in the Social activities section refers to: Acea SpA, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Reti e Servizi Energetici, Acea Ato 2, Acea Ato 5, LaboratoRI, Acea8cento, Acea Energia holding, Acea Energia and Acea Produzione.

The Staff Recreational Association (CRA), the Gold Medal Association (see related box) and the National Association for Disabled and Invalid Civilians (ANMIC) are the main organisations that provide social activities in-house directly involving the employees.

The Staff Recreational Association (CRA) **proposes cultural, sporting, tourism, welfare, economic, commercial initiatives**, etc. with the purpose of turning to account the leisure time of the members, without losing sight of the social utility aspects.

The **members enrolled in the Staff Recreational Association (CRA)**, including the executives, increased during 2012 reaching **4,602 individuals** (4,583 in 2011), and numerous requests to use the various services offered were made, as occur every year, thanks to their quality and the contained costs involved (see table No. 67).

The CRA followed the activities of the **company crèche**, open to the children of both employees and residents of the 1st Municipality, which in **2012 looked after 43** children in the first half of the year and **41** in the second half, and awarded a number of scholarships to

employees' children, high school or deserving university students for the results achieved in their studies.

The Staff Recreational Association is also responsible for the agreements with institutes which offer services such as **supplementary healthcare to company employees and their dependent family members**, the provision of **dentistry services free-of-charge** to employees and their dependent family members, the disbursing of **personal loans at soft rates, free legal advice** and the offer of **tourism, sporting, recreational and cultural activities, at convenient costs** (see table No. 67). The CRA has also activated over the years numerous agreements and conventions benefiting the members including the agreement with a telephone services operator so as to offer Group employees the possibility of purchasing prepaid telephone cards, at advantageous prices, for telephone and internet traffic and state-of-the-art electronic devices; the ticket sales services relating to sporting, theatrical and musical events and the bill payment, telephone recharges service.

### IN REMEMBRANCE OF DON FRANCO ZUCHELLI, ACEA'S SPIRITUAL GUIDE

Way back in 1964, a young priest from the diocese of Lodi, ordained some months earlier by the Bishop Tarcisio Vincenzo Benedetti, arrived in Rome to meet our predecessors at the helm of the company, offering to play the role of spiritual guide.

Don Franco tirelessly worked to draw Church and the working environment closer together. These were the years of the first working-class priests, arising from the wave of renewal which followed the Second Vatican Council and the young priest was precisely one of these innovative ministers capable of being a worker among workers, making himself available to all those who were to manifest the desire to grow in the knowledge of the revealed word and agreeing to preach the catechism between a manoeuvre in the station and a repair at Peschiera. His presence, discrete and reassuring, accompanied both the happy and painful moments of many colleagues, creating an occasion for encounter and religious formation.

Don Franco Zucchelli from Lodi, Acea's spiritual guide for nearly 50 years ended his earthly journey on the night of 23 December 2012. We are certain that the love and kindness which he generously wished to spread throughout our company, will receive just recognition.

*Acea's workers*

During the year, the CRA supported **solidarity initiatives**, for example organising- together with the Community of Sant’Egidio - the offer of **meals to the homeless** at holiday times, and the **“solidarity dinner”** in collaboration with Associazione Irene Onlus.

Among the **charitable initiatives** of particular importance was the donation in favour of the *Association Tuluile Bantu Onlus*, an organisation involved in the promotion and defence of human rights in Africa.

**TABLE NO. 67- MEMBERS WHO USE CRA SERVICES (2010-2012)**

<b>(number)</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
members using tourism services	1,397	1,026	1,140
members benefiting from sporting grants	498	590	574
youngsters attending summer camps	284	171	150
youngsters benefiting from study holidays	38	0	0
members paying insurance premiums in instalments	1,653	1,861	1,729
members paying instalments on purchases	192	167	91
members enrolled in the Italian Touring Club (T.C.I.)	58	41	36
medical insurance reimbursements	768	831	1,082
members benefiting from “Epiphany” gifts	707	707	763
members who benefited from scholarships	73	69	64

**THE GOLD MEDAL ASSOCIATION**

The Gold Medal Association, established in 1956, involves members who are **pensioners and employees with at least 20 years of company service**; this Association had **956 members** as of 31 December 2012, of which 760 pensioners and 196 employees in service.

The Association provides the members with **assistance in relation to social security, taxes and insurance** and furthers occasions for getting together by means of the activation of **social, formative, cultural and tourism ventures**.

In detail, during 2012 it took steps to:

- organise 2 social days, acknowledging 5 longstanding members (at least 20 years membership) and 14 employees who retired during the last 12 months;
- provide 1 IT course;
- assign 10 scholarships to members’ children;
- organise trips to exhibitions and museums, archaeological, historic and monumental sites;
- organise tours abroad and in Italy, summer visits to seaside locations and day trips;
- provide tax-related support for members, making a dedicated CAF (tax assistance centre) available to them for the declaration of income and payment of IMU (council property tax).

The **National Association for the Disabled and Invalid Civilians** (ANMIC) works together with the company for the purpose of the satisfactory inclusion of disabled persons or those with serious ailments (276 employees in Acea as of 31 December 2012) and, over the years, this partnership has assisted in removing architectural barriers present in the offices and an improvement in safety in the workplace.

The ANMIC, recognised in-house since 1957, protects its members and offers them a number of services. It has entered into certain agreements, such as those with an insurance company and the CRA regarding the reimbursement of medical and health costs.



## Shareholders and financial backers

Acea, listed on the Milan Stock Exchange, handles relations with the analysts, the shareholders (current and potential) and with the financial market in general, thanks to the activities overseen by the **Investor relations** Division, which sees to relations with the various parties in the financial community, and by the **Corporate Affairs** Division, which follows the management of the information flows with the competent Supervisory

Authorities (Consob and Borsa Italiana) and sees to the corporate fulfilments envisaged for listed companies. Constantly up-dated norms and procedures, adequate technical and IT support ensure the stock and financial market a **continual, prompt, transparent and complete flow of information**, for the purpose of permitting the stakeholders concerned the correct assessment of the Group's incoming earning prospects.

### The economic flow towards shareholders and financial backers

The positive results of 2012 operations guaranteed the shareholders around **Euro 63.9 million in dividends** (Euro 59.6 million in 2011), which corresponds to 30 Euro cents per share, with a **payout of 75%** on net profit before allocations to minority shareholders.

Profit pertaining to minority shareholders amounted to Euro 7.9 million.

During 2012, with reference to the Italian utilities sector, the attention of the financial community was focused in the first instance on the possible evolution of the electricity and gas markets, particularly penalised by the competitive competition in a context characterised by production over-capacity and, in the second instance, on possible legislative changes.

In this context, in the last Stock Exchange session of 2012 Acea stock reported a reference price of Euro 4.554 (capitalisation: Euro 969.8 million) down 6.83% with respect to 31 December 2011. In 2012, the maximum value of Euro 5.385 was achieved on 15 March, while the minimum value of Euro 3.640 was reported on 13 June. During the year under review, average daily volumes traded amounted to 126,078 shares.

### Agency ratings

The **rating** is a summary opinion on the credit worthiness of a party based on its ability to reimburse principal and interest within the pre-established deadlines. In its capacity as a company which interacts with the financial markets, Acea also voluntarily subjects itself to independent assessments made by the leading international rating agencies.

**TABLE NO. 68 – ACEA STOCK AND STOCK EXCHANGE INDEX PERFORMANCE (2012)**

	% change 31 Dec. 2012 (compared with 31 Dec. 2011)
<b>Acea</b>	<b>-6.83%</b>
FTSE Italia All Share	+8.36%
FTSE Mib	+7.84%
FTSE Italia Mid Cap	-0.43%

The **financial backer** stakeholder was allocated **Euro 154.1 million** (Euro 150.8 million last year). In detail, during 2012 there was an increase in interest on borrowing (short, medium and long-term) for around Euro 13 million, of which approximately Euro 9.3 million determined by the requirement for the purchase of the executives offices in Piazzale Ostiense in Rome. Mention should also be made of the fact that in the year under review there was a positive effect from the disappearance of certain items (discounting of receivables and tariff adjustments) recorded in 2011 for around Euro 11 million.

**TABLE NO. 69 - 2012 RATINGS**

agency	long-term rating	short-term rating
Fitch	A-	F2
S&P's	BBB-	A-2
Moody's	Baa2	

In March 2012, **Fitch** reduced Acea's long-term rating (from A to A-) justifying this reduction with reference to circumstances within and outside the company. With regard to the former, the agency revealed a greater imbalance between energy production and sales activities – further to the renewed company profile due to the winding up of the joint venture with GdF Suez Energia Italia SpA, in 2011 – and the uncertainty linked to the dividend policy. With regard to the exogenous causes, the regulatory uncertainties which involve the entire water system and the downgrade suffered by Italy were considered.

## Financial disclosure

During 2012, **around 110 studies and/or notes on Acea** were published.

The Investor Relations unit held **around 40 encounters** with Italian and international investors, as well as conference calls with analysts that cover Acea stock.

The communication of economic-financial information relating to the Acea Group was constantly updated in the shareholders' section of the **company website**, where documents, information and presentations are available, both past and present.

An on-line version of the last sets of Acea Group financial statements is also made available (both the statutory and the sustainability report) along with a specific disclosure section dedicated to **ratings**, where the opinions issued on the company by the agencies and the related summary reports can be found.

Once again in the year under review, Acea was assessed within the sphere of the **KWD Webranking 2012 Italy Top 100**<sup>88</sup> research, considered to be the most complete and accredited analysis at Italian level on the quality of the on-line financial and institutional disclosure. With respect to the last edition, the Acea website reported a recovery of 3 positions in the overall classification and is in 68th place, despite having a slightly lower score, equal to 20.5 (scale of 1-100). The average score of the

In October, **Standard & Poor's** reduced Acea's rating by two levels (from BBB+ to BBB-), essentially due to the degree of indebtedness of the company and the increase in working capital, in which the receivable due from Rome City Council is important, in an particularly complex general financial and economic context.

**Moody's** expressed itself at the same time as S&P's, confirming the opinion already expressed in July 2012 (Baa2), highlighting the efforts launched by Acea to enhance its financial structure and improve the working capital, mainly by means of initiatives useful for the collection of outstanding receivables, especially those due from public administration authorities.

companies analysed has in fact dropped in general (from 36.8 in 2011 to 32.5 in 2012).

**TABLE NO. 70 – WEBRANKING ITALIA TOP 100: ACEA'S RANKING (2010-2012)**

	2010	2011	2012
position	60	71	68
score	31.5	23.5	20.5

With regard to the on-line communication of corporate social responsibility, the reference survey nationally is the **CSR Online Awards 2012**<sup>89</sup>. Acea holds 28th place in this ranking, stable with respect to last year with an overall score of 28/100 (+6.5 with respect to 2011). In this case, the increase in the score has not led to any changes in the classification despite the expansion of the number of companies analysed in the panel, rising from 50 in 2011 to 100 in 2012.

**TABLE NO. 71 – CSR ONLINE AWARDS ITALY: ACEA'S RANKING (2010-2012)**

	2010	2011	2012
position	29	28	28
score	27.5	21.5	28

<sup>88</sup> The survey, carried out by KW Digital (a division of Hallvarsson&Hallvarsson) in collaboration with Lundquist, examines the corporate websites of 102 high capitalisation companies present on the Milan Stock Exchange on the basis of 100 content-related aspects, defined and updated by a panel of experts and professionals, in particular economic analysts and journalists, with reference to which each company analysed is assigned a score and a related classification.

<sup>89</sup> The CSR Online Awards survey, carried out by Lundquist, is based on a protocol defined by CSR experts - including the CSR managers of the companies surveyed - using 68 assessment criteria (for 112 parameters), on 11 sections of interest: overview, reporting, environment, social, ethics & governance, social responsible investment, navigability & usability, visual communication, interactivity, news & resources, dialogue & contacts..

## Ethical finance

### The evolution of ethical finance

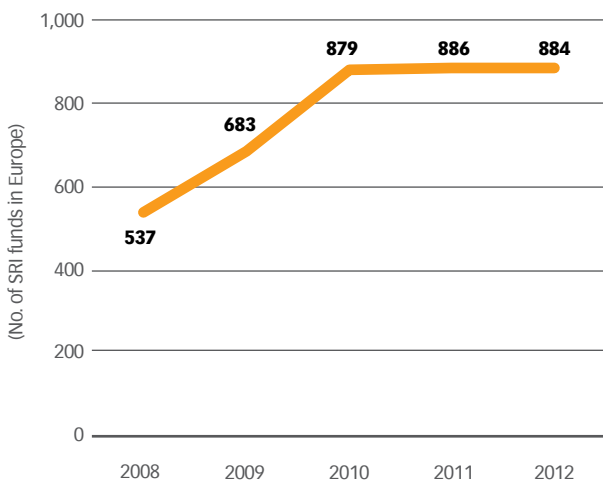
In the report *Green, social and ethical funds in Europe 2012 Review*<sup>90</sup>, Vigeo presents the **evolution of ethical funds in Europe** between June 2011 and June 2012. Over the last year, there has been confirmation of a **slowdown in this financial market segment**, which felt the effects of the difficult economic situation, and a tendency towards stagnation already seen as from 2011, with a few exceptions.

The **number of SRI funds** (*Socially Responsible Investment*) domiciled in Europe and intended for the common market, **remained more or less unchanged - 884 funds active** in June 2012 compared with 886 in 2011 - disclosing a new trend when compared with the very prominent growth which characterised the three-year period 2008-2010. Despite this, genuine recession was not seen but rather a period of consolidation: **the value of the assets managed, in fact, continued to rise, + 12% in relation to the around Euro 95 billion in 2012 and Euro 84 billion last year**, growth which had the same proportion disclosed between 2011 and 2010 (see charts No. 30, 31 and 32).

Observing the trends of the 11 European countries examined by the survey in greater detail, we can note that France, the United Kingdom, Switzerland, Belgium and Germany represent the most solid dimension of the SRI funds market. However, if cumulatively 82% of the European SRI funds are domiciled in these 5 countries and they manage 83% of the value of the assets, **in France alone 29% of the funds are domiciled and it manages 44% of the total funds**.

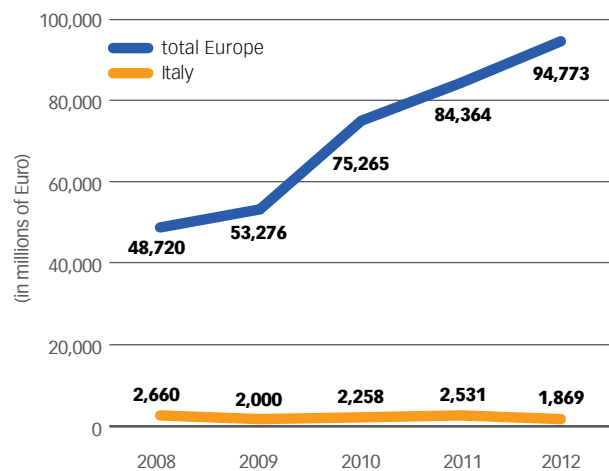
During the year, only SRI funds domiciled in the Netherlands (+19%) and France (+15%) increased; their number remained unchanged in Denmark and Austria while in the other countries they underwent slight decreases, with the exception of Belgium which, despite maintaining a considerable percentage - 25% of the funds were domiciled - reported the greatest drop (-7%). The absolute value of the assets under management increased in five countries out of the eleven: France (+31%), the Netherlands (+24%), Germany (+18%), the United Kingdom (+11%) and Sweden (+5%) while a decrease was seen in Spain (-36%), Italy (-16%), Switzerland (-15%) Belgium (-8%) and Austria (-1%).

**CHART NO. 30 – OVERALL NUMBER OF SRI FUNDS IN EUROPE (2008-2012)**



Source: Vigeo, *Green, social and ethical funds in Europe. 2012 Review*

**CHART NO. 31 - TOTAL ASSETS UNDER MANAGEMENT FOR SRI FUNDS IN EUROPE AND ITALY (2008-2012)**

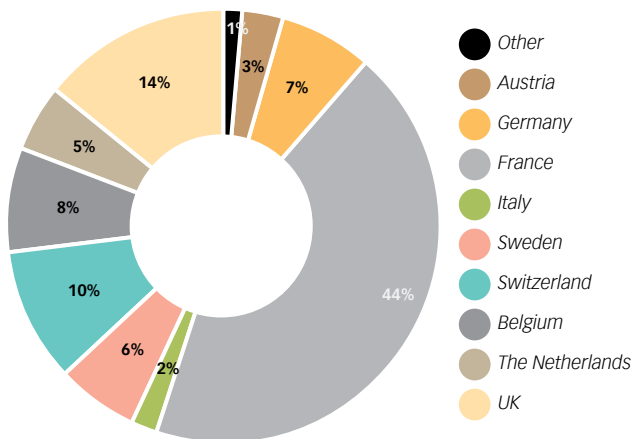


Source: Acea processing on Vigeo data, *Green, social and ethical funds in Europe. 2012 Review*

<sup>90</sup> The report, now in its twelfth edition, represents a point of reference regarding the analysis of the trends in socially responsible retail funds (SRI) domiciled in Europe. The scope of this analysis includes: Austria, Belgium, Denmark, France, Germany, Italy, Luxembourg, Norway, the Netherlands, the United Kingdom, Spain, Sweden and Switzerland and takes into consideration the SRI retail funds which use ethical, social and environmental selection criteria active as of 30 June 2012.

**CHART NO. 32 - ASSETS UNDER MANAGEMENT FOR SRI FUNDS BY COUNTRY (2012)**

**total AUM: Euro 94,773 million**



Fonte: Vigeo, Green, social and ethical funds in Europe. 2012 Review

### The ethical analysts assess Acea

The relationship between Acea and ethical finance circles continues to be enhanced and gain depth: in 2012 the company verified its position in the assessments of analysts, ratings and ethical finance indexes, as illustrated below.

Acea stock is included in the **ECPI Italy SME's Equity** index which selects the 30 low/average capitalisation companies listed on the Italian market which achieve a positive assessment of the sustainability performances. The ECPI method contemplates over 100 positive analysis criteria on production processes, environmental impacts,

governance dealings with the community and handling of diversity (gender, age, culture).

Furthermore, within the sphere of the ethical share indexes developed under partnership between ECPI and FTSE, Acea is present in the **FTSE ECPI Italia SRI – Benchmark** list. The latter includes the 100 medium/high capitalisation listed companies, included in the FTSE All-Share, which have good ESG (Environmental, Social, Governance) characteristics relating to environmental impacts, production processes, relations with the communities, human capital, corporate governance and markets.

Acea has been included in the **Living Planet Green Tech Europe Index**, as from its establishment in December 2010. On the basis of financial and environmental criteria, the index - established by a partnership between CA Cheuvreux (Crédit Agricole), Living Planet Fund (a socially-responsible investment company which originates from the WWF International) and Amundi - selects European companies, listed and active in the green economy sector (for example: alternative energies, management of water resources and waste, energy efficiency).

According to **Kempen SNS**, which has been examining Acea since 2005, the company confirms its commitment to corporate citizenship and therefore is also included in 2012 in the Kempen SNS Socially Responsible Investing universe.

In conclusion, also **Oekom Research**, which after having assessed the environmental and social aspects of the business operations, expressed a rating on Acea, confirming the level of C+ (scale of D-/A+).

### THE APPRAISAL PROCESS CARRIED OUT BY AN ETHICAL ANALYST

In April 2012, Acea was contacted by **Vigeo**, European leader among sustainability rating agencies, for the periodic review process on the ESG (Environmental, Social and Governance) aspects which qualify the business operations.

Vigeo produces and supplies its research to more than 100 investors, present throughout the world, which include sustainability criteria in its portfolio decisions.

The **review process**, which is carried out following the steps established by the rating agency, has made it possible to establish useful and structured dialogue with the company. In the first stage, Acea forwarded Vigeo pertinent information (policies and performance data) with regard to six areas: **human sources, environment, dealings with customers and suppliers and business ethics, human rights, corporate governance, participation in local development**. For each sphere, the analyst - who, besides assessing the information provided by the company, availed itself also of external, autonomous and independent sources - concentrated the examination on the pertinence of the corporate strategies and the objectives, on the consequent implementing processes and the results achieved.

In the second and third stages, on the basis of the information collated and processed up to this point, Vigeo and Acea had an intense discussion, aimed at more in-depth analysis, via specific questions posed by the analyst and answered by the company. The last two stages first of all led to the drawing up of a draft CSR profile for Acea, verified by the company with regard to the absence of errors in the figures and completeness of the information, and then to the closure of the process with the production of a complete and updated profile on the company which Vigeo made available to its customers (investors).

## Institutions and the Company

Supervision of the dealings with the institutions and economic parties present in the reference contexts is a key element in the running of the business. Relations with the institutional stakeholders, aspiring to the culture of dialogue, are defined by seeking a shared advantage which, in an inclusive logic, takes into consideration, among other aspects, the interests of the community and the area in which the Group operates.

### The relationship with the institutions

Relations between Acea and institutions affect both the economic dimension (paying duties and taxes) and the social dimension (dealings with local institutions, with sector Authorities, dialogue with Consumer Associations and other representatives of the general public, professional and institutional cooperation, etc.) on a consistent basis with current legislation and the Group's value codes.

The economic value distributed to **public administration authorities** in 2012, under the form of taxes, amounted to approximately **Euro 88.8 million** (Euro 65.6 million in 2011). The tax rate for the year was equal to 51% (42.1% last year). The overall increase in the tax liability was the result of the joint effect of the increase in pre-tax income, the IRES surtax affecting Acea Distribuzione on the basis of the matters envisaged by Italian Decree Law No. 138/11 (so-called Robin Hood Tax) and the payment of the taxes on capital gains generated and essentially tax exempt last year, consequent to the winding up of the AceaElectrabel joint venture.

Acea regularly pays contributions and membership fees to other public and private bodies, such as the chambers of commerce and the independent administrative authorities, the sector associations and the representative bodies. In 2012, the overall total of this item came to around Euro 2.5 million, unchanged with respect to the previous year. In detail, around Euro 1.30 million was paid to the supervisory authorities (AEEG, Consob and other public service authorities), around Euro 100,000 was incurred as mandatory charges for chambers of commerce and Euro 1.09 million for contributions to confederal bodies and for sundry membership fees (Federutility, Confservizi, Unione Industriali).

The **institutions** are a preferential partner with whom

to carry out measures for the social and economic development of the area, the containment of the impacts deriving from the construction of structural works, the increase of the level of quality of life, also by virtue of the essential nature of the services provided by the Group (see sections *Customers and the community*, *Human resources* and *Environmental issues*).

Acea interacts with the various institutional parties in observance of the principles and regulations confirmed in the Group's value codes. In 2012, the **Group's new Ethical Code** was approved which dedicates **Article 19** to dealings with institutions, Public Administration Authorities, political parties and trade union organisations, establishing that:

*«Acea does not contribute in any way to the funding of political or trade union parties, movements, committees or organisations, even if they have the legal nature of association or foundation instrumental for the same, or their representatives or candidates.*

*Dealings between the Company and political and trade union organisations, with regard to aspects of company interest, aspire to reciprocal respect and collaboration.*

*Each relationship must be authorised by the appointed structures, paying particular attention to avoiding situations in which conflicts of interest may take place between Acea and those of the individual authorised to establish relations with the political or trade union organisation.*

*In any event, Acea refrains from conduct aimed at exercising pressure, direct or indirect, on political or trade union representatives in order to obtain benefits».*

An organisational model is in force in Acea which ensures adequate coverage of the handling of institutional relations, defining appointments and responsibilities assigned to the various corporate Divisions in an precise manner. In accordance with this model, **Acea SpA's Chairman** ensures the **legal representation** and the **definition of the institutional strategies**; the **Institutional Affairs Division** ensures the overall representation of the Group positions at the local, national and European bodies and institutions, monitors the developments in the pertinent legislative scenario for the corporate businesses and co-ordinates, within the sphere of dealings with the Consumer Associations, the activities correlated to joint conciliation procedures; the **Corporate Affairs Division** sees to the communications and notifications to the **Supervisory**

**authorities** on companies and the stock market (Borsa and Consob); the **Regulatory Division** oversees the dealings with the **Regulatory Authorities** in the reference sectors, representing the positions of the Group companies in the participative procedures for the formation of the regulations launched by authorities, bodies and institutions.

Together with the Parent Company, the **Group operating companies** see to the handling of the **“technical-specialist” aspects** of the water, electricity and public lighting services managed, also by means of consultation with the various administrative, regulatory and control bodies.

The initiatives, projects and studies which Acea achieves in synergy with the appointed institutions and research bodies concern social and environmental, security and protection of public heritage spheres, technological innovation, some of which are illustrated below.

With regard to the subject of **security**, understood as **prevention and handling of emergencies**, Acea **takes part in specific work groups** making its skills available.

In detail, for the identification and protection of the **Key Infrastructures**, it takes part in the work of the **Interministerial Technical Commission for Civil Defence (C.I.T.D.C – Home Office)**; each year, it intervenes throughout the area in **particular situations of alarm or emergency** – , for example, **in 2012** there was the **snowfall emergency** in the capital and surrounding area - with the **co-ordination of the Civil Defence Agency** (also see *Customers and the Community, Quality supplied in the water area*). In conclusion, for the definition and protection of **strategic infrastructures and services**, it collaborates with the work of the **National Security Monitoring Centre (OSN)** - furthered by the Ministry of Defence's Military Centre for Strategic Studies (CeMISS) - together with government representatives for Defence, Health and Civil Protection, the main public services operators and qualified representatives from academic circles.

The main initiatives carried out in 2012 by the **National Security Monitoring Centre (OSN)** which Acea took part in were:

- **the 33rd COCIM IV COURSE** - national emergency

exercise for civil and military collaboration: a course aimed at providing the military and civilians with an updated framework of the legislation and procedures in force with regard to civil defence, civil protection, civil-military co-operation and civil planning of emergencies within the national, UNO, NATO and EU sphere;

- **the CyberWorld Work Group**, a national think tank for institutions and businesses, whose mission is to create an interdisciplinary cyber security culture with the aim of increasing cohesion between the public and private sphere. During 2012, on the basis of the outcome of the 2011 workshop *“Cybernetic security in the scenario of civil and military co-operation*, the “Cyber World” Work Group looked in-depth at the topics of protection of Key Infrastructures from cyber attacks, also in relation to possible scenarios concerning *Hacktivism, CyberWar and CyberWarfare*. Acea provided its contribution within the sphere of the sub-group which sees to technological and terminological aspects.

With reference **environmental aspects**, Acea takes part in the **Permanent Round Table established care of the Ministry for the Environment** for the definition of the **“Minimum Environmental Criteria”** (Italian CAMs) which goods and services must comply with in order to be admitted to the **National Action Plan on Green Public Procurement (PAN GPP)<sup>91</sup>**; on conclusion of the discussion procedure, the document will be issued in the form of a Ministerial Decree.

The **partnership between Acea and the local public administration authorities**, and in particular Rome City Council, made it possible to achieve important initiatives within the sphere of the Action plan for sustainable energy in the city, such as **the sustainable mobility project** in Rome and Lazio and that **for eco-sustainable growth** in Rome. Furthermore, Acea takes part in the task-force **for the protection and recovery of public spaces and urban green areas**.

Acea is a member of **Research centres, Standardisation bodies and Sector associations**, promoting the same or contributing towards specific research activities in the businesses in which it operates (see related box).

<sup>91</sup> The PAN GPP envisages that the Ministry for the Environment defines the “Minimum Environmental Criteria” (CAM), which represent a benchmark at national level with regard to green public purchases and which may be used by the contractors, in order to permit the Action Plan on Green Public Procurement to maximise the environmental and economic benefits. Green Purchases or GPP (Green Public Procurement) is defined by the European Commission as «(...) a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured».

## MEMBERSHIP OF RESEARCH CENTRES, STANDARDISATION BODIES AND SECTOR ASSOCIATIONS IN 2012

The main memberships renewed or started up in 2012:

- Associazione Amici dell'Accademia dei Lincei;
- Associazione Amici della Luiss;
- AGICI - Finanza d'Impresa;
- the Einaudi Foundation;
- the Utilitatis Foundation (Studies and research centre of water, energy and environment);
- CSR Manager Network Italia (Altis and ISVI);
- the Global Compact (UNO);
- Istituto di Ricerche per l'Economia e la Finanza (REF);
- Istituto di Economia delle Fonti di Energia, IEFE – Bocconi;
- Associazione Italiana esperti Infrastrutture Critiche (AIIC);
- Associazione Italiana Professionisti della Security Aziendale (AIPSA);
- Associazione Elettrotecnica ed Elettronica Italiana (AEI);
- Associazione Idrotecnica Italiana (AI);
- Comitato Elettrotecnico Italiano (CEI);
- Istituto Unificazione Italiano (UNI);
- Associazione Italiana di Illuminazione (AIDI);
- Italian Association for Trenchless Technology (IATT);
- the World Energy Council (WEC);
- Federazione Italiana per l'uso Razionale dell'Energia (FIRE);
- Distretto Tecnologico Nazionale sull'Energia S.c.ar.l. (Di.T.NE.);
- ISES Italia (International Solar Energy Society - Italian Section);
- I-Com (Institute for Competitiveness);
- Agenzia Nazionale per le Nuove Tecnologie, l'Energia e lo Sviluppo Economico Sostenibile (ENEA);
- Energy and Strategy Group – Milan Polytechnic (ES-MIP).

Furthermore, in order to encourage the development of initiatives of interest in the reference sectors, the **Studies and Research Division** operates within Acea, seeing to **local, national and international analysis, study and research activities**, on aspects of interest to the Group companies.

In detail, during 2012 Acea took part in two important studies in the water and electricity sector together with other operators:

- **The reform of the regulation of water services in Italy**, a study carried out by **IEFE-Università Bocconi**, which offers an analysis of the impact of the reform of the water services, also in consideration of the referendum results in 2011. The analysis revolves around the concept of sustainability, identifying the various components (economic-financial, environment and social) and constructing a system of indicators

around the same suitable for representing the sector performance in a systematic manner.

- **The improvement of the Market Design in relation to the forecast requirements of the system**, a study achieved by the **Economic and Finance Research Institute (REF)**, in which the current situation **within the sphere of electricity generation** is analysed and a hypothetical short and mid-term scenario is provided with ideas and proposals for overcoming the current criticalities.

The relationship between Acea and the **institutions tasked with education** and training of youngsters aims to create a profitable link between the world of employment and new talent.

As a point of fact, the company offers new graduates and high school leavers the **opportunity of work**

**experience** within Group companies, makes available the **professional expertise** of its human resources as part of university courses and Masters degrees and **supports, also via** the disbursement of **loans and scholarships**, research activities or Masters courses on topics of interest (also see the section *Human Resources*).

Acea also offers its contribution within the sphere of specific research carried out on the subject of youth employment, such as the most sought-after professional skills for companies, the professional prospects offered by the employment market, etc.

In particular, **during 2012** Acea worked together with Tor Vergata University in Rome within the sphere of **The communication, university and employment market** survey achieved with the contribution of Ferpi. The research looked into the opportunities offered to youngsters who have just graduated or who are specialising, **by the communications and public relations areas** of the companies, interviewing 130 managers from the leading multinationals and Italian businesses. The results revealed that the companies seek new talent in various faculties (economics, marketing, communications), choose them on the basis of ability, level of preparation and experience matured and assign them to a predominant extent to institutional, product, digital communication, to public relations and social media, also hypothesising good professional growth prospects within five years of employment in the company.

Collaboration and partnerships between the Group operating companies and **Universities** also takes place within the sphere of **technical projects** carried out both in the environmental-energy and water spheres (see *Research*, under *Environmental issues*).

Specifically, **during 2012 specific collaboration was launched** with the Centro Interuniversitario di Ricerca sull'Inquinamento da Agenti Fisici (CIRIAF), Università La Sapienza/Cyber Intelligence and Information Security (CIS), the Centro Interdipartimentale di Studi Internazionali sull'Economia e lo Sviluppo at Tor Vergata University (CEIS) and ENEA, for the purpose of **taking part in the Smart Cities call** published by the Ministry for Education, Universities and Research (MIUR), for which **Acea presented three projects: EUR 2015** (primary sphere Smart Grid), **R.O.M.A.** (primary sphere Area security) and **Solutions for nearly zero energy town** (primary sphere Sustainable architecture).

The company **takes part in exchanges of views**

on **topical matters and subjects of national and international importance** between entrepreneurial circles, the scientific community, institutions and citizens and offers its specialist contribution during conferences and workshops which deal with matters associated with the businesses run.

**During 2012**, the company dedicated **particular attention to the subject of sustainable mobility** and the **development of smart networks**, taking part by means of company testimony in seminars, forums and specific events such as: *Auto elettrica & efficienza energetica*, the seminar on electric vehicles organised in Rome by Amici della Terra and by Arel, the *Italian Smart Grid Forum 2012* on the role, challenges and opportunities for Italy in the spreading of smart grids, and MoTechEco 2012, the fifth sustainable mobility exhibition.

In order to actively oversee the evolution of the reference scenario, the company explores the market potentials and the **possible synergies with other companies**: in 2012, for example, following the memorandum of intent signed in 2011 between **Acea and Enel**, the agreement was finalised further by means of a new **Memorandum of Intent** also signed by **Rome City Council** which envisages the installation in Rome of 200 recharging stations for electric vehicles, equipped with a technology capable of ensuring the interoperability between both the infrastructures of the two companies and with the recharging points already installed by Enel as part of the E-Mobility Italy project (see *Customers and the community, Quality supplied in the energy area*).

Particular attention was also dedicated to the subject of **energy saving** by means of participation in dedicated conferences such as: the *Conference presenting the Energy Efficiency Report* of the Energy & Strategy Group.

Open to dialogue with the stakeholders, **Acea listens to and assesses the legitimate requests of the customers**, citizens and other entrepreneurial parties, also by means of interaction with the bodies which represent them: Federations, entrepreneurial trade, trade union and consumer protection Associations.

The Parent Company's **Institutional Affairs Division**, among other responsibilities, has that of overseeing, via the Institutional Relations Unit and together with the Group operating companies, the handling of **relations with consumer associations**.

Acea has for some time adopted the **joint mediation or settlement** procedure, active, for the water sector, care of the companies Acea Ato 2 and Acea Ato 5 and, for



the electricity sector, care of Acea Energia and, **as from 2012**, care of **Acea Distribuzione**, first case in Italy (see related box for details). The mediation activities address household customers resident in Lazio, represented and supported by the Consumer Associations recognised by the National Consumers and User Council - CNCU.

During 2012, access to the **joint mediation procedure**, whose documentation is available on-line on the websites of the companies involved, disclosed a

**significant increase** with respect to last year. Overall, the **requests conveyed** to the Associations on behalf of customers of the companies Acea Energia, Acea Distribuzione, Acea Ato 2 and Acea Ato 5 admitted to the mediation procedure **came to 296** (195 in 2011).

In detail, care of Acea Energia there were 157 requests for mediation; 3 reached Acea Distribuzione; while requests for mediation care of Acea Ato 2 and Acea Ato 5 come to 118 and 18 respectively.

#### ▶ ACEA DISTRIBUZIONE INVOLVED IN JOINT MEDIATION: THE FIRST CASE IN ITALY

During 2012, **Acea Distribuzione and the Consumer Associations** which are members of the National Consumers and User Council, signed a **Joint Mediation Protocol**, the **first in Italy** activated by an electricity distribution operator.

The Protocol offers customers served by Acea Distribuzione, resident in Rome and Formello, a facilitated procedure for the settlement, in a short space of time and without costs, of any possible disputes with the company.

The customers, represented by an Association, can access the mediation procedure in relation to the cases envisaged by the Regulations - **service continuity, equity aspects, technical-commercial performances, meter readings** (malfunctioning of the meter and reconstruction of the record of the consumption) - and for written complaints which have received answers justifiably unsatisfactory or in relation to which Acea Distribuzione has not sent a reply within 40 days.

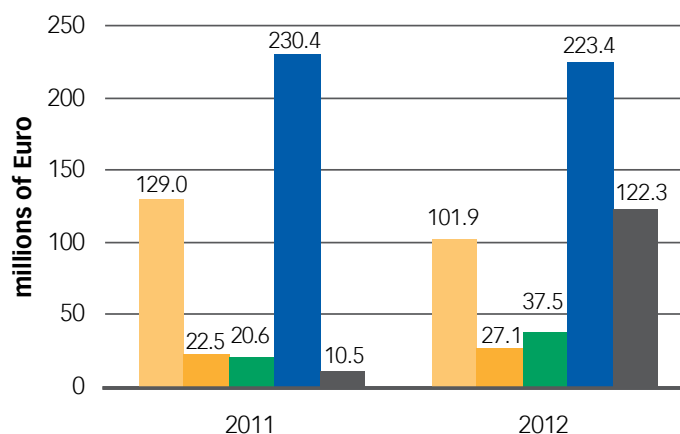
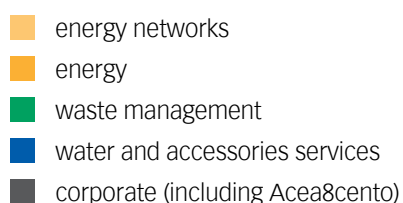
## The company as stakeholder

**Acea protects and turns to account its tangible and intangible assets**, moving in the wake of a sustainable financial position, governing the internal requirements linked to operations and the growth prospects on a consistent basis with the stances expressed in the corporate mission and the 2012-2016 strategic Plan.

**Investments** made in 2012, amounted to **Euro 513.2 million, up by around 24.3%** with respect to the Euro 413 million in 2011. In detail, the over Euro 120 million attributable to the **corporate area** stands out, consequent mainly **to the purchase**, at the start of the year, of the **institutional headquarters in Piazzale Ostiense**, Rome. Investments **in the energy area** and **the waste management area** rose. In the first

case, they rose from Euro 22.5 million in 2011 to around Euro 27.1 million in the year under review, essentially in relation to the repowering of the **hydroelectric plants** of Acea Produzione. In the second case, the commitment with regard to revamping activities carried out on the Terni waste-to-energy plant and on the first line of the San Vittore del Lazio plant took investments to Euro 37.5 million compared with Euro 20.6 million in 2011. The **water area** reported a slight **drop**, with a volume of investments equal to Euro 223.4 million, compared with Euro 230 million in 2011. The **networks area** reported a **drop** of Euro 27 million, standing at around Euro 102 million, mainly attributable to the completion of the photovoltaic plants belonging to **Acea Reti e Servizi Energetici**.

**CHART NO. 33 – BREAKDOWN OF INVESTMENTS BY BUSINESS SECTOR (2011-2012)**



**Amortisation, depreciation, provisions and writedowns**, being components of the **company's self-financing**, amounted to **Euro 401.4 million** (-7.4% with respect to the Euro 433.3 million in 2011). In detail, amortisation and depreciation remained more or less unchanged, at Euro 263.4 million. By contrast, there was an increase in **writedowns of receivables**, from Euro 55 million to Euro 83.5 million in 2012, mainly attributable to Acea Energia and the water companies in Lazio and Campania, offset by the considerable reduction in **provisions**, from Euro 113.5 million to Euro 54.5 million in 2012, consequent to the lower charges linked to both the redundancy and voluntary lay-off procedures for human resources and the regulatory risks pertaining to the water companies in Lazio and Campania.

The **physical** (physical business structures) and **logical** (intangible assets) **protection of the company assets**, the **prevention of fraudulent phenomenon**, the **protection of privacy and sensitive data**, **reception and surveillance services** are overseen, at centralised level, by the **Asset Protection Unit** of the Parent Company, with the support of the Heads of the Protection Management System (RSGP) identified within each Group company.

The **protection of the information systems** and the **handling of IT security** are overseen by the **Information and Communication Technology (ICT) Division** which defines the operating policies and the standards for the protection of the information consistent with the model for the functioning of the organisation, the legal requirements and the objectives defined by the Safety and Protection Division.

Numerous **internal procedures** are operative within Acea, for guaranteeing the protection of the company assets, such as the procedures for the **management and control of the accesses to the images registered by the video-surveillance system**, etc. **During 2012**, a procedure was issued for the **handling of the destruction of confidential documents** which illustrates and regulates the methods for the controlled and certified destruction of confidential paper-based documents.

Acea SpA manages corporate protection centrally, seeing to the **reception and security services** also at the operational premises of Acea Energia, Acea Energia holding, Acea Produzione, Acea Distribuzione, LaboratoRI, Acea Ato 2, and Acea Ato 5. The company also oversees the **security of the IT systems** with measures aimed at safeguarding them from potential risks and violation of data; in 2012, with the supervision and co-ordination of the Parent Company, Acea Distribuzione and Acea Ato 2 carried out vulnerability tests on the **remote control and monitoring systems** for the respective networks.

For the purpose of improving the **protection of the information and the related information systems** in which it is archived, the **Information and Communication Technology Division of the parent company** undertook the following initiatives in 2012:

- the creation of a **Security Operation Center (SOC)**, for the improvement of the IT security standards, the decreases in incidents, the correlation of security alerts and the related monitoring;
- the publication of a **documental framework**,

dedicated to the security of the information system, in which the way to archive, handle and communicate corporate information are described, both at high level (policy) and at detailed level (operating instructions).

Each year, Acea carries out **awareness raising measures in relation to the aspect of corporate protection** aimed at increasing the security culture in-house and improving communication between the Protection Management System Managers (RSGP) of each Group company and the employees. With particular attention to this aspect, it is currently involved in the **development of a portal dedicated** to security.

**Technological innovation** is a further **distinctive element of Acea's strategic vision** and is implemented in the various operating sectors of the company. Just consider the Geographic Information System – GIS for the mapping of the networks, progressively applied both in the water sector and the energy area; the district metering method for the detection of water losses, the remote control systems, the functional technologies for the reduction of the emissions at waste to energy plants, just to name a few examples (see the section *Customers and the Community – The quality supplied – and Environmental issues*).

During 2012, the **updating of the Enterprise Resource Planning (ERP)** system of the SAP application was carried out, an **integrated management system** which is used to handle significant information, permitting access to operating data for all the company Divisions, and the consolidation towards a sole platform was planned.

With regard to the development of **process and product technological innovation** projects in the environmental sphere, **during 2012 Aquaser was identified** - within the sphere of an inter-institutional agreement between the Italian Ministry for the

Environment and Protection of the Territory and the Sea and the Mexican Ministry for the Environment - **as the party to be entrusted with the realisation of a pilot project** for the sustainable production of bio-energy, bio-fertilizers and purified water from organic waste **in the City of Mexico**. The project, featuring significant process innovations will be achieved in 2013 (see box in *Environmental issues*).

Furthermore, the **company SAO**, which manages a landfill for urban waste in the area of the Municipality of Orvieto, is currently studying the **implementation of management systems** which make it possible to **reduce the use of natural resources** present in the landfill (clay and natural shale) so as to improve the filling of the waste and recover volumes useful for the extension of the operating life of the landfill.

**Acea Distribuzione**, the Group company which manages the infrastructures for the distribution of electricity, is very active with regard to technological innovation which ranges **from the evolution of lighting design** used in the public lighting services carried out in Rome, in particular with the application of LEDs, to the **development of functional applications for energy efficiency** and the even more challenging frontier of the **"smart" grids**, with the Smart grid pilot project and the Smart-network Management System project (see *Customers and the community, Quality supplied in the energy area and Environmental issues*).

In conclusion, **Acque** - within the sphere of the **"Premio Firenze Produttiva 2012"** - was awarded a prize by the Florence Chamber of Commerce for having distinguished itself due to the activities carried out to the benefit of the socio-economic fabric of the area, receiving the **gold medal in the patents category** for research and applications activities regarding the photostabilisation of the sludge from treatment plants by means of treatment *in situ*.

## MEASURES TAKEN BY THE SECTOR AUTHORITIES VIS-À-VIS ACEA: PRELIMINARY INVESTIGATIONS, BONUSES AND FINES

The penalty and fine system established by the **Gas and Electricity Authority (AEEG)** vis-à-vis the companies which operate on the electricity market contributes towards inciting the companies to improve their performances. Over the last few years, **Acea Distribuzione** has achieved important results, with constant improvements in the electricity supply continuity performances, both with regard to the number of black outs and their duration, thus obtaining the **acknowledgment of economic bonuses**, as from the performances registered in 2008 and from then on each year. Once again in 2012, for the service results relating to 2011, the AEEG approved the payment to **Acea Distribuzione** of an incentive amounting to around Euro **5.49 million** (Resolution 500/2012/R/EEL).

In November 2012, the AEEG, within the sphere of its control functions on operators involved in the sale of electricity, **launched a sanctioning procedure** (Resolution 462/2012/S/EEL) vis-à-vis **Acea Energia** in relation to: failure to observe the frequency of the billing of electricity; calculation of the amounts on the basis of estimated consumption despite the presence of metered data communicated and failure to respect the quality standards in response to the requests for information from customers.

In January 2012, the **Anti-trust Authority (AGCM)** concluded the procedure launched in the previous year (PS 7647). By means of this initiative, the AGCM intended to ascertain whether the closure during the August Bank Holiday period in 2011 of the sales counters of **Acea Energia** and **Acea Ato 2**, open to the public at the headquarters in Piazzale Ostiense, represented incorrect commercial practice: the Authority did not recognise any reprehensible conduct in the case in question.

During 2012, the **Authority for the Supervision of Public Contracts for work, services and supplies (AVCP)**, a body tasked with checking the observance of the rules which discipline the subject of public contracts, during the preliminary investigation procedures vis-à-vis Acea, formulated recommendations with regard to the methods to be used for making changes to tender calls, published by Acea in its capacity as contractor.

Another measure of the AVCP refers to Acea Energia and concerned the direct entrusting of the agency agreement in favour of a business partner: this contract was deemed legitimate on conclusion of the preliminary investigation carried out.

In the **public lighting area**, the performances of the service carried out in the Municipality of Rome reported an improvement also for the year under review, thereby confirming the positive trend started in 2010. The percentage of measures on faults carried out beyond the maximum deadlines established by the contract fell from 0.6% (2011) to 0.5% (2012); on the basis of this result, Acea was fined for an overall amount of around **Euro 26 thousand**, down by 13% with respect to the Euro 30 thousand last year.

With regard to disputes concerning **environmental** issues with the appointed public authorities (Arpa, the Forestry Commission, etc.) please see the section *Environmental issues* and the *Environmental accounts*.

## Activities abroad

Acea operates abroad in the water services sector, in Peru, Honduras, Colombia and the Dominican Republic, serving overall around 9.7 million inhabitants. Even if, in terms of consolidation percentage, activities abroad have a contained incidence from an economic-financial standpoint, it is deemed useful, due to their social relevance, to provide a concise description all the same. The activities, carried out by special purpose companies created in partnership with local and international partners, aim to improve the service, in situations where it is particularly lacking, with regard to its technical, management, administrative and commercial aspects;

under such circumstances, Acea ensures the training of the human resources and the transfer of know-how to the local business class.

This section offers a brief summary of the main features of the operating companies and their mission in the countries of reference, describing the projects and the socially and environmentally relevant initiatives.

The new Group Ethical Code<sup>92</sup>, 2012 edition, has been disclosed care of all the foreign investee companies, available on the company website ([www.acea.it](http://www.acea.it)), in Italian and in English.

### Consorcio Agua Azul SA

Consorcio Agua Azul was established with the mission of producing drinking water for the local publically-owned water company: SEDAPAL (Drinking water and sewerage service in Lima). The Consortium has built the infrastructures necessary for satisfying part of the drinking water needs in the **northern area of Lima, in Peru**, using the surface and underground water of the

River Chillón; it will maintain operational responsibility for the same until 2027, when the services will be transferred to the State.

During 2012, 46.2 Mm<sup>3</sup> of drinking water was produced, 2% less than in 2011, due to the minor availability of surface water whose exploitation decreased 7%.

#### CONSORCIO AGUA AZUL SA - MAIN CORPORATE AND OPERATING FIGURES

<b>country (area)</b>	Peru (northern area of Lima - Cono Norte)
<b>inhabitants served</b>	750,000
<b>customer</b>	Sedapal (State-owned drinking water and sewerage service of Lima)
<b>source of funding</b>	shareholders' equity and bonds issued on the Peruvian market
<b>duration of the contract</b>	7 April 2000 – 18 June 2027
<b>purpose of the project</b>	BOT (Build-Operate-Transfer) project for the construction and management of the drinking water supply system which exploits the water of the River Chillón and the underlying ground water
<b>partners</b>	Acea SpA 25.5% - Impregilo International Infrastructure N.V. 25.5% - Marubeni Co 29% - Inversiones Liquidas S.A.C 20%
<b>No. of employees as of 31 Dec. 2012</b>	32
<b>business turnover (in thousands of Euro)</b>	10,894

<sup>92</sup> In detail, Article 3 of the Group Ethical Code (2012 edition) defines the Beneficiaries and the divulgation of the Code: «The provisions of the code address all Acea staff and those of the subsidiary companies: directors, auditors, management and employees, as well as all those who operate, in Italy and abroad, for the achievement of Acea's objectives, each within the sphere of their own functions and responsibilities. The companies controlled by Acea receive the Code and adopt it by adapting the same, where necessary, to the peculiarities of their company, on a consistent basis with their operating autonomy. Acea's representatives in the corporate bodies of the investee companies and joint ventures further the principles and the contents of the Code within their respective sphere of competence. The Company undertakes to further awareness of the Code by the individuals who operate in the company and the other stakeholders so that the principles and conduct prescribed therein represent supports for a corporate culture aspiring to sustainable development and daily guide the corporate conduct».

With regard to the socio-environmental commitment, in 2012 Consorcio Agua Azul **confirmed its support for state organisations** (such as the National Police Force, primary schools, the Carabayllo fire company), **non-profit foundations** (such as associations to help drug addicts) and **local farmers' associations**, with which it shares use of water from the Valle del Chillón. Furthermore, with regard to the gardening and canteen services, the Consorcio **availed itself of small local companies, family run**, offering work opportunities to companies in the area. In order to combat the widespread phenomenon of school abandonment, it **distributed teaching materials** (935 school kits, 30% more than last year) to primary schools and nursery schools in the area. Once again this year, the rucksacks distributed were created entirely from recycled plastic and featured printed phrases which encourage the correct use of the water resource and the respect of the environment. The Consorcio **also accommodated** care of its structures, **high school and university students and recent graduates, offering them a period of work training**. Furthermore, again in 2012 **the practical**

**phase of the regional course on the functioning of the rapid filtration plants** was carried out, in which graduates from various Latin American countries take part each year.

With regard to the management of the human resources, the Consortium provided **1,646 hours of training**, which in particular concerned **environmental aspects** and above all else related to **safety in the workplace**. The staff of contractors also took part in these courses. During festivities, social events were organised, involving the families of employees, as well as the employees of the companies which provide their services to the Consorcio. Toys and sweets were also distributed to the children of employees as well as to the children of the local schools and the children of the local police.

The **Safety in the workplace management system** was updated in accordance with the new legislation on the subject (Supreme Decree 005-2012-TR), whereas Consorcio Agua Azul already has an **Integrated Quality and Environment System** certified **according to standards UNI EN ISO 9001:2008 and 14001:2004**.

## Aguas de San Pedro SA

Aguas de San Pedro (ASP) is the holder of the thirty-year contract for the management of the integrated water service for the city of **San Pedro de Sula, Honduras**. The company has launched an important work programme for enhancing and improving the water service which foresees the achievement of total coverage of the city, with a continual water service, and

the accomplishment of works for catchment and for the treatment of the sewer drains. The number of customers served in 2012 came to around 106,133, 73% of which supplied with meters. The coverage of the drinking water service reached 99% and that of the sewerage service was 83% of the population. Water production came to 82.7 Mm<sup>3</sup>, 54% coming from wells.

### AGUAS DE SAN PEDRO SA - MAIN CORPORATE AND OPERATING FIGURES

country (area)	Honduras (San Pedro Sula)
inhabitants served	500,000
customer	municipal authority
source of funding	shareholders' equity and loans from commercial banks
duration of the contract	1 February 2001 –1 February 2031
purpose of the project	concession of the integrated water service for the city of San Pedro de Sula
partners	Acea SpA 31%, IREN SpA 30%, Astaldi SpA 15%, Ghella SpA 15%, Three Comercial 5%, C. Lotti & Associati 4%
No. of employees as of 31 Dec. 2012	416
business turnover (in thousands of Euro)	21,136

The company continued in 2012 with the **social support initiatives** and the commitment to **safeguard the environment**, dedicating itself in particular to the conservation of the **El Merendon Nature Reserve**, declared a protected zone for the withdrawal of water for San Pedro Sula. Various measures were achieved in the area including the “Merendon” **re-forestation**, launched in 2004 and **progressively being completed**; the implementation of **campaigns for protection from fires**; the **construction of a greenhouse system** for the cultivation of corn and beans, used by 11 women from the local community to ensure them greater revenues and provide incentive for crops which have a lower environmental impact; the **donation of 180 piles for the installation of a rural electricity network** benefiting 7 local communities.

There were many initiatives in favour of employees, such as the allocation of **scholarships to workers and children of employees** with a low salary level, **grants for the purchase of books and school materials**, **training** courses on **technical and administrative**

**subjects**. Furthermore, in order to ensure better medical assistance, a medical unit was set up within the company structures, affiliated with the National Health Service. In 2012, the system was subject to audit by Istituto Hondureño de Seguridad Social (the Honduras Social Security Institute), emerging as **among the 10 best medical units set up by private companies** in the country. During 2012, medical check ups were carried out, along with information campaigns on the prevention of important illnesses and vaccination campaigns (against flu, hepatitis A and B, tetanus, etc.) for employees and their families.

In conclusion, in order to encourage integration and socialisation in-house, during holidays recreational events were organised, attended by employees and their families. During 2012, the company continued with the certification process for the laboratory in accordance with the **ISO 17025:2005** standard, while in November **it obtained certification of the Quality Management System** in accordance with the **ISO 9001:2008** standard.

## Acea Dominicana SA

Acea Dominicana handles the commercial management of the water service in the **Northern and Eastern areas of Santo Domingo**, in the Dominican Republic. The activities include the management of customer relations, of the billing and estimate cycle, the installation

of new meters and work management relating to new connections. The project represents one of the first experiments for private participation in the water services of the Dominican Republic.

### ACEA DOMINICANA SA - MAIN CORPORATE AND OPERATING FIGURES

country (area)	Dominican Republic (areas North and East of Santo Domingo)
inhabitants served	1,500,000
customer	Corporación del Acueducto y Alcantarillado de Santo Domingo (CAASD)
duration of the contract	1 October 2003 – 1 October 2016
purpose of the project	commercial management of water service
partners	Acea SpA 100%,
No. of employees as of 31 Dec. 2012	134
business turnover (in thousands of Euro)	2,892

Once again during 2012, Acea Dominicana continued with the **campaign to raise the awareness of the population** with the aim of developing the water resource and getting them to recognise the importance of paying for this service.

The number of employees as of 31 December 2012 came to 134 with a high percentage of female staff (41% of the total).

With regard to human resource management, Acea Dominicana operates in accordance with Dominican Republic Employment and Social Law legislation, adopting **corporate policies to safeguard the rights and dignity of employees**. On a consistent basis with this approach, what is more, a private health insurance policy has been concluded and a fund set aside to ensure severance pay, both of which not mandatory in the Dominican Republic.

## Aguazul Bogotá SA ESP

Aguazul Bogotá sees to the commercial management of the water service and the distribution networks in **Bogotá**, in 3/5ths of the capital of **Colombia**. The activities cover the management of the entire billing cycle, customer care activities including the call centre, the running and ordinary and extraordinary maintenance

of the water mains, emergency service, loss detection and quality control for the service. 2012 was the last year of management of the contract signed in 2008. The public administration authorities in fact manifested their desire to once again insource the activities carried out by private operators since 2003.

### AGUAZUL BOGOTÁ SA ESP - MAIN CORPORATE AND OPERATING FIGURES

<b>country (area)</b>	Colombia (Bogotá, zones 1, 2 and 5)
<b>inhabitants served</b>	4,500,000
<b>customer</b>	Empresa de Acueducto y Alcantarillado de Bogotá (EAAB)
<b>duration of the contract</b>	2 January 2003 - 31 December 2012 (two contracts)
<b>purpose of the project</b>	commercial management of the water service, running and maintenance of the distribution network
<b>partners</b>	Acea SpA 51%, Gruppo Emdepa 29%, V. Cavalli 10%, L.E. Belalcazar 10%
<b>No. of employees as of 31 Dec. 2012</b>	930
<b>business turnover (in thousands of Euro)</b>	32,739 (*)

(\*) includes 60% of the Consorcio AZB-HCI revenues

In 2012, the company continued its commitment in favour of the citizens, in particular the most disadvantaged local communities, by means of the organisation of meetings and **participation in events organised by the municipal authority**, during which **the citizens were informed of the rights and duties linked to the water service**, educated to **read and comprehend the bill** and supported for the solution of possible problems associated with the same. Furthermore, activities were carried out aimed at **safeguarding the water bodies** of the city and their correct use as well as the correct use of the system for collecting rain water, for the purpose of reducing floods and other problems linked to the heavy rains.

During the year, Aguazul Bogotá **hosted 73 students**, including 12 from universities, who carried out a period of **practical training** within the company defined in the context of agreements with the National Learning Service (SENA) of the Ministry for Social Protection.

Human resource management once again envisaged in 2012 **the use of local unskilled labour resident in the areas of service**, with the aim of developing more disadvantaged areas. **Training courses** were provided during the year in various spheres such as IT, work safety and the quality management system, in addition to aspects pertaining to the water service, for **a total of 5,250 hours of training as well as 420 hours of training for new recruits**. Sport and recreational activities were organised as well during 2012, involving employees and their families.

Aguazul Bogotá has a Quality Management System certified in accordance with the **ISO 9001:2008** standard. **A Health and safety in the workplace and environmental protection management system** also operates in-house.



## Consortio Aguazul Bogotá-HCI

Aguazul Bogotá and the Peruvian HCI Group established Consorcio AZB-HCI which was awarded the contract for managing the commercial services in the **Northern area of Lima, in Peru**. The contract, commencing on 1 July 2010, has a three-year duration and includes the management of the billing cycle, the maintenance of the

meters, the updating of the customer database and the installation during the first two years of management of new meters.

Activities for meter installation were completed in 2012, for a total of **270,690 new meters installed**.

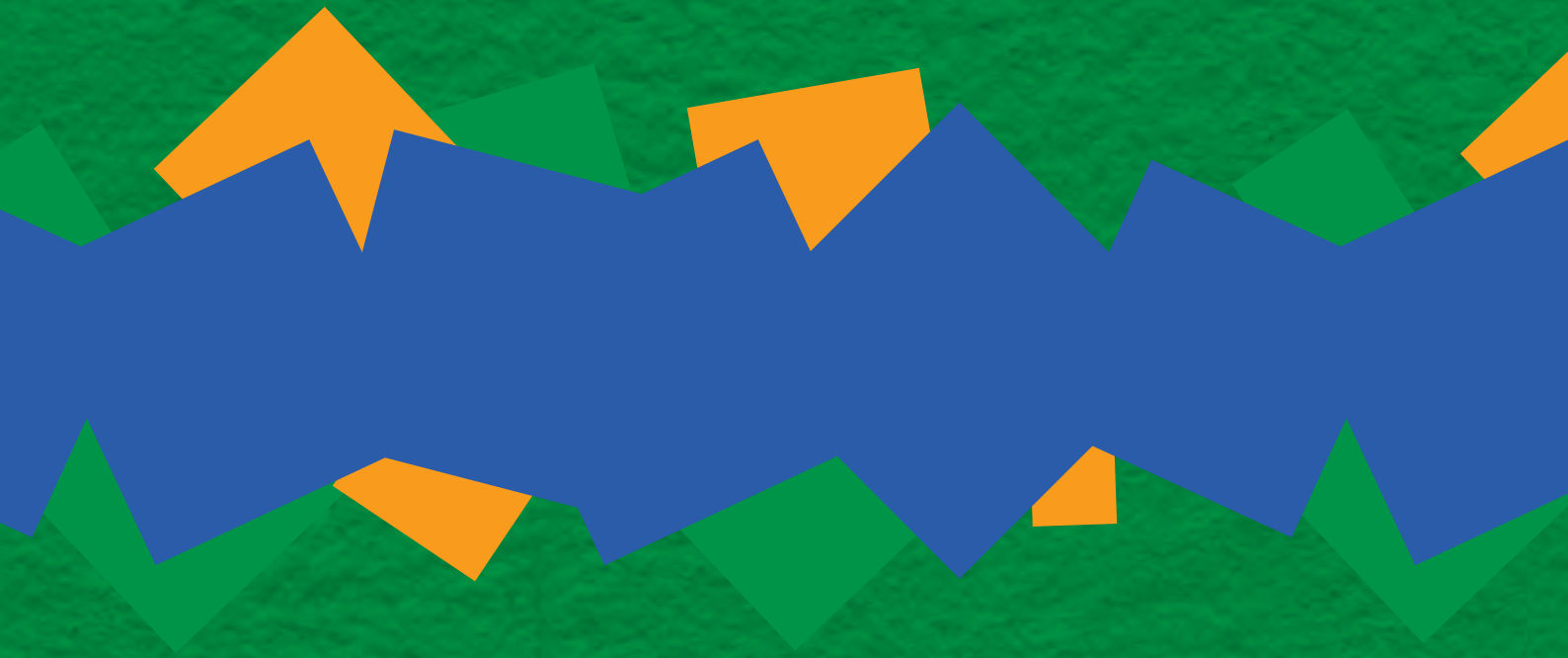
### CONSORCIO AZB - HCI (CONAZUL) - MAIN CORPORATE AND OPERATING FIGURES

country (area)	Peru (Northern area of Lima)
inhabitants served	2,500,000
customer	Sedapal (State-owned drinking water and sewerage service of Lima)
duration of the contract	1 July 2010 - 30 June 2013
purpose of the project	commercial management of water service and installation of meters
partners	Aguazul Bogotá 60%, HCI Group 40%
No. of employees as of 31 Dec. 2012	377
business turnover (in thousands of Euro)	12,950 (*)

(\*) included in the revenues of Aguazul Bogotá for 60%.

The Consortium achieved the **awareness-raising campaigns** once again in 2012 on the value of the water resource and the importance of the metering of the consumption care of the resident population in the area of service.

With regard to human resource management, comprising 377 individuals during the year, the Consortium complies with the legislation envisaged by Peruvian Employment and Social Law and adopts **corporate policies to safeguard the rights and dignity of employees**.





## Environmental issues

## GRI environmental performance indicators

The **indicators**, in the table, relating to the **environmental performances** (core and additional) envisaged by the **GRI-G3.1 Guidelines, 2011 edition**, together the indicators introduced by the **Electric Utility Sector Supplement**<sup>93</sup> are shown below, with indication of the sections and pages of the report where it is possible to find them.

The meaning of each performance indicator is illustrated in the Guidelines and Sector Supplement, available on the website [www.globalreporting.org](http://www.globalreporting.org).

The **Environmental accounts**, an integral part of the report, also include **more than 250 items** which represent the **production** values, the **resources** used and the outputs (**waste** and **emissions**), along with around **60 indicators/parameters** of environmental importance, selected so as to clearly and concisely describe the Group's performances.

**TABLE NO. 72 – GRI-G3.1 ENVIRONMENTAL INDICATORS**

### MATERIALS

<b>EN1 (CORE)</b>	Materials used by weight or volume. <i>Environmental accounts</i> : pages 241 et seq. In relation to PCB, Acea had already taken steps by 31 December 2009 to dispose of all transformers with PCB exceeding the threshold of 500 ppm, in compliance with Italian Legislative Decree No. 209/99 and Italian Law No. 62/05. There were 332 transformers with PCB exceeding 50 ppm but below the aforementioned threshold in 2012 (407 last year).
<b>EN2 (CORE)</b>	Percentage of materials used that are recycle input materials. Preparatory action is underway for the establishment of a monitoring system capable of tracing the quantities of recycled materials which are used to replace virgin materials. No significant data is available at present. Over the next three years, the figure should be more or less fully re-established, partly thanks to the implementation of a suitable computerised information system.

### ENERGY

<b>EN3 (CORE)</b>	Direct energy consumption by primary energy source. <i>Environmental issues</i> page 216
<b>EN4 (CORE)</b>	Indirect energy consumption by primary source. <i>Environmental issues</i> pages 216 et seq.
<b>EN5 (ADDITIONAL)</b>	Energy saved due to conservation and efficiency improvements. <i>Environmental issues</i> pages 204, 206
<b>EN6 (ADDITIONAL)</b>	Initiatives to provide energy-efficient or renewable energy-based products and services, and reductions in energy requirements as a result of these initiatives. <i>Environmental issues</i> pages 198, 206
<b>EN7 (ADDITIONAL)</b>	Initiatives to reduce indirect energy consumption and reductions achieved. <i>Environmental issues</i> page 207

### WATER

<b>EN8 (CORE)</b>	Total water withdrawal by source. <i>Environmental issues</i> pages 217 et seq.
<b>EN9 (ADDITIONAL)</b>	Water sources significantly affected by withdrawal of water. <i>Environmental issues</i> page 209
<b>EN10 (ADDITIONAL)</b>	Percentage and total volume of water recycled and reused. <i>Environmental issues</i> pages 217 et seq. (limited to the cooling process of the thermoelectric installations)

### BIODIVERSITY

<sup>93</sup> The indicators of the Electric Utility Sector Supplement (EU) are supplemented in the table; the text disciplines distinct matters for energy companies, introduces new indicators (EU) and a number of in-depth notes (commentary) relating to indicators already envisaged by the 2006 version of the GRI Guidelines.

---

<b>EN11 (CORE)</b>	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas. <i>Environmental issues</i> pages 194, 209
<b>EN12 (CORE)</b>	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas. <i>Environmental issues</i> page 194
<b>EU13</b>	Biodiversity of offset habitats compared to the biodiversity of the affected areas. <i>Environmental issues</i> page 194
<b>EN13 (ADDITIONAL)</b>	Biodiversity of offset habitats compared to the biodiversity of the affected areas. <i>Environmental issues</i> page 194
<b>EN14 (ADDITIONAL)</b>	Strategies, current actions, and future plans for managing impacts on biodiversity. <i>Environmental issues</i> page 194
<b>EN15 (ADDITIONAL)</b>	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk (*). At present, this item is not monitored since in the area in which the Group is operative, none of the species listed on the red list are present. In any event, the Group carries out its activities strictly respecting and protecting the natural habitats concerned and the fauna and flora present in the areas it operates in.

#### **EMISSIONS, EFFLUENTS, AND WASTE**

---

<b>EN16 (CORE)</b>	Total direct and indirect greenhouse gas emissions by weight (according to the WRI – <i>Greenhouse gas Protocol</i> ). <i>Environmental issues</i> page 220; <i>Environmental accounts</i> page 244, 246 et seq.
<b>EN17 (CORE)</b>	Other relevant indirect greenhouse gas emissions by weight. No significant emission to be reported.
<b>EN18 (ADDITIONAL)</b>	Initiatives to reduce greenhouse gas emissions and reductions achieved. <i>Environmental issues</i> page 206
<b>EN19 (CORE)</b>	Emissions of ozone-depleting substances by weight. <i>Environmental issues</i> page 220
<b>EN20 (CORE)</b>	NO <sub>x</sub> , SO <sub>x</sub> , and other significant air emissions by type and weight. <i>Environmental issues</i> page 220; <i>Environmental accounts</i> pages 244, 246 et seq.
<b>EN21 (CORE)</b>	Total water discharge by quality and destination. The water which is used by the Acea structures for “non-industrial/sanitary” use (around 2 Mm <sup>3</sup> in 2012) underwent the same standard treatment used for civil waste water. The environment impact produced on the receiving water body by the outflow of the treated water, is particularly contained.
<b>EN22 (CORE)</b>	Total weight of waste by type and disposal method. <i>Environmental issues</i> page 221; more detailed information in the <i>Environmental accounts</i> .
<b>EN23 (CORE)</b>	Total number and volume of significant spills. In 2012, no significant amounts of pollutants such as mineral oil, fuels or chemical products were released into the environment.
<b>EN24 (ADDITIONAL)</b>	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally. The Group sends 12,487 tons of hazardous waste, CER 190111 - part of the heavy ash produced at the San Vittore del Lazio (FR) plant - to plants in Germany for recovery.
<b>EN25 (ADDITIONAL)</b>	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization’s discharges of water and runoff. No discharge to be reported which significantly affected the habitats or biodiversity.

## PRODUCTS AND SERVICES

---

- EN26 (CORE)** Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.  
The products supplied (electricity, heat, drinking water, treated water and public lighting) do not have significant environmental impacts since they do not give rise to either pollution or harmful emissions.  
*Environmental issues* pages 195, 198, 219 et seq.
- EN27 (CORE)** Percentage of products sold and their packaging materials that are reclaimed by category.  
Not applicable.

## COMPLIANCE

---

- EN28 (CORE)** Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations.  
*Environmental issues* page 195

## TRANSPORT

---

- EN29 (ADDITIONAL)** Significant environmental impacts of transporting products and other goods and materials used.  
*Environmental issues* pages 216 et seq.

## GENERAL

---

- EN30 (ADDITIONAL)** Total environmental protection expenditures and investments by type.  
*Environmental issues* page 196
- 

The IUCN (International Union for the Conservation of Nature) list, to which the **EN15** indicator refers, concerns endangered species ([www.iucn.org](http://www.iucn.org))

## Sustainable development within Acea

As from 1972 to-date, governments worldwide have entered into a number of important declarations regarding development, each time confirming the value of sustainability as the main guide in the performance of any activity and also tracing the effective routes for making implementation thereof possible. Specifically, the **Rio + 20 Conference** (see related box for details) was held **in 2012**, renewing the political commitment for sustainable development and checking the state of implementation of the international commitments undertaken over the last twenty years.

In full compliance with the principles of sustainability, Acea aims to combine respect for the environment with

social and economic progress in the areas in which it operates, having pursued for a number of years three macro-objectives: **the increase in the efficiency** of the production processes; **technological renewal** (using technologies and operating systems with a **lower environment impact**) and the increase in the portion of electricity produced from **renewable sources**. It is also committed to monitoring activities and, where possible, improvement of the environmental performances. With regard to its long-term strategy, Acea includes active participation in debate on general topics of environmental protection, providing a contribution from the experience gained during more than a century of involvement in the water and electricity sector.

### ▶ JUNE 2012: THE RIO+20 CONFERENCE

The General Assembly of the United Nations organised the conference on sustainable development for 2012, from 20 to 22 June in Rio de Janeiro (United Nations Conference on Sustainable Development - *UNCSD*), known as Rio+20, in that it had been organised some 20 years after the Earth Summit in Rio de Janeiro (United Nations Conference on Environment and Development - *UNCED*) held in 1992.

The two main themes of the conference were:

- *A Green Economy in the context of sustainable development and poverty eradication*: an ambitious programme towards a green economy which aims to improve the environmental conditions of the Planet, at the same time furthering the social and economic wellbeing of its inhabitants.
- *Institutional framework for sustainable development*: the definition of a global governance system for sustainable development, including the institutions appointed to develop, monitor and implement the sustainable development policies in social, environmental and economic spheres.

For Italy, the Rio+20 Conference represented a valuable occasion for reflection on important subjects brought to the attention of the most advanced societies, in which awareness that the future economy will have to be green is by now mature, in other words capable of rewarding - with market mechanisms - the production of goods and services which use few natural resources and do not pollute the environment.

In the final Rio document, *The future we want*, the importance that practices and action be developed by all the countries is emphasised, so as to reduce poverty and improve the critical situations of water and energy shortage.

Other information is available on the websites: <http://www.uncsd2012.org/>; <http://www.minambiente.it/>

In the three main sectors in which the Group companies operate – **energy, water and waste management** – Acea undertakes to run the plants and processes seeking to ensure a balance between the social and environmental dimensions of the activities, on the one hand, and the need to make them suitably remunerative, on the other.

The Group operates in various regions of central Italy: Lazio, Campania, Tuscany, Umbria and Marche, paying particular attention to the protection of the area and

the landscape, some of the most appreciated in the world in terms of natural and artistic beauty. With this sense of responsibility, over the years the Group has increasingly focused the management of its processes towards a systematic approach, **showing preference** where possible **for the adoption of formalised and standardised rules** such as those defined by the **UNI EN ISO 14001 standards or the European EMAS Regulations** (also see *Corporate identity, The management systems*).

## Action taken in response to climatic change

Like any other Utility company which produces electricity, Acea deals with the problem of the containment of greenhouse gas emissions.

The aim is to **contain the carbon footprint of the production processes**, for a future less dependent on fossil fuels. One of the most incisive actions in this sense was the modification of the electricity generation mix which took place in the last two years, and that caused an essential shift from primary sources to renewable ones (81%), making the contribution of the traditional sources for the production of electricity entirely marginal.

Acea has also paid attention to the evolution of the cultural context in which questions linked to climatic change are dealt with, seeking to rouse, within the Group, greater awareness of the importance of keeping the problem of climate-altering gas emissions under

control. In this sense, participation in the **Carbon Disclosure Project – CDP** revealed itself to be very useful (see related box for details). Acea has been involved in the initiative from its very first edition in 2006 and in this period improved its system for the monitoring of carbon dioxide emissions, transparently reporting the quantities and the sources and establishing the increasingly challenging reduction targets.

During the last CDP, the **“Italy 100 Climate Change Report 2012”<sup>94</sup>** study was presented in which Acea received a decidedly positive assessment. The opinion on the clarity and completeness of the disclosure was expressed by means of a score of **81/100** (67/100 in 2011), while in terms of the management capacity of the emissions, the “C” rating was maintained (on a scale of E/A).

### THE CONFERENCE OF THE PARTIES ON CLIMATE CHANGE IN DOHA

The **18<sup>th</sup> Conference of the United Nations on climate change** was held between 26 November and 7 December 2012 in Doha, Qatar, the so called COP 18, where the Minister for the Environment, Corrado Clini, was present for Italy. 17 thousand delegates attended, representing 190 countries and international bodies, discussing how to lay the foundations for a new global agreement to combat the rise in the temperatures of the planet for two weeks.

The “Kyoto 2 Protocol” was signed in Doha by: the European Union, Australia, Switzerland and Norway (responsible for around 15% of global emissions). These Parties, having originally signed the first Kyoto Protocol, committed themselves to continuing until 2020 the action for containing their emissions, but with the intent of extending the agreement by 2015 to all the other parties who have not signed up.

Italy belongs to the group of European countries most firmly convinced of the need to convert the development models, pushing towards an economy with low carbon emissions. In his speech, the Minister Corrado Clini declared: «Italy is furthering a low carbon economy. Renewable sources, energy efficiency policies and incentives are the key for achieving this objective. Annual incentives of Euro 6.7 billion on photovoltaic plants and Euro 5.8 billion on renewable energies, permitted Italy in 2011 to be the first country in the world with regard to new renewable energy plants and the second in terms of total installations».

Source: <http://www.minambiente.it>; <http://unfccc.int>

<sup>94</sup> Available on-line on the website [www.cdproject.net](http://www.cdproject.net).



## ACEA IN THE CDP ITALY 100 CLIMATE CHANGE REPORT 2012

The **Carbon Disclosure Project (CDP)** is an international initiative launched in 2000 by the non-profit organisation Rockefeller Philanthropy Advisors of New York, supported by around **400 institutional investors**, mainly large banks and financial brokers, aimed at **evaluating the strategies put together by the companies in order to deal with the phenomenon of climate change**.

In fact, the financial markets not only demonstrate interest for the subject but tend to promote the companies which respond proactively to the challenge of climate change, assigning them greater probability of success over the mid/long-term.

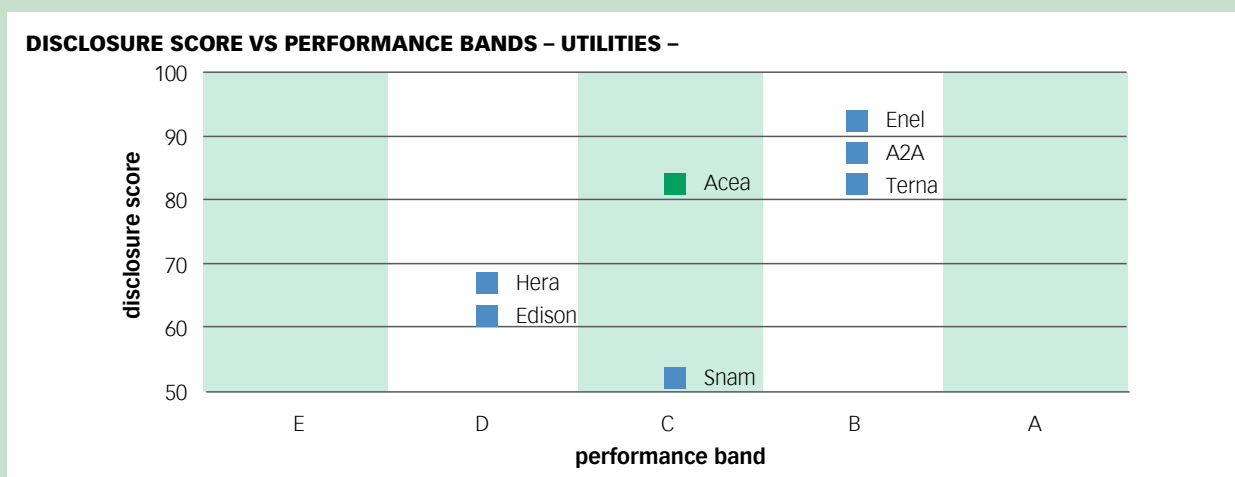
The companies which agree to subject themselves to assessment are obliged to answer a complex questionnaire drawn up and forwarded by the CDP, capable of highlighting the effective ability of management to **exercise control over greenhouse gas emissions** and **plan reduction objectives**.

The score which is assigned by the CDP assessment team, during the analysis of the compiled questionnaires, regards two separate areas of judgement:

- 1) the **clarity and transparency** of the answers, in other words the quality of the disclosure, which is measured on a scale of 0 to 100;
- 2) the **performances** in terms of specific CO<sub>2</sub> emissions – for example kgCO<sub>2</sub> per Euro of additional value produced –, which is assessed on a scale of E (minimum) to A (maximum).

In Italy, 46 companies - out of the 100 to which the 2012 questionnaire was sent - answered and Acea was among these, having subjected itself to assessment for some years now. The **CDP Italy 100 Climate Change report 2012** was presented in Milan in 2012.

The following chart illustrates the summary of the results obtained by the leading Italian Utility companies answering the questionnaire:



Other information is available on the website: <https://www.cdproject.net>.

### Reduction of the Carbon Footprint

Acea's response to the challenge of containing the Carbon Footprint in its processes, is essentially based on three lines of action:

- the reduction of the indirect emissions, in other words those deriving from the consumption of electricity;
- the increase in the portion of energy produced from renewable sources, in particular bio-mass and hydro-electricity;
- development of electric mobility.

The first line of action aims to improve the energy

efficiency in the end uses, cutting the total consumption of electricity by at least 1% a year. For a Group whose energy consumption amounts to around 700 GWh per year, this is equivalent to a minimum efficiency recovery of 7 GWh per year, **corresponding to 1,200 tCO<sub>2</sub> per year avoided**. **The energy saved during 2012 in just the water sector**, equal to around 10 GWh, **made it possible to exceed the annual target**. In terms of equivalent (indirect) emissions, known as "Scope 2" within the sphere of the CDP, Acea reached a total of around 643,550 tons of CO<sub>2</sub> (conversion factor equal to 0.52 t/MWh<sup>95</sup>).

<sup>95</sup> The emission factor (t/MWh) is not a value defined univocally in Italy. However, it can be estimated as:  $0.52 \text{ tCO}_2/\text{MWh} = 0.187 \text{ tep}/\text{MWh} * 2.8 \text{ tCO}_2/\text{toe}$ . References: AEEG DCO 2/2008 and EU Decision 2007/589/CE.

Significant investments were incurred in 2012 for the development of **renewable sources**. In detail, the measures concerned hydroelectric generation, with **the modernisation of the Salisano and Narni plants** (Terni) and the complete **renovation of the waste to energy plants** at San Vittore del Lazio and Terni. The investment programme into photovoltaic sources continued, despite the fact that the company has sold the majority of the installed power and exited from this specific technological sector. The **portion of electricity**

**generation from renewable sources reached 81% of the total** in 2012.

**With regard to the development of sustainable mobility**, during 2011 Acea entered into two important Memorandums of Intent<sup>96</sup> with **Enel** (for the joint development of the recharging infrastructures for electric vehicles) and with **FIAT Group Automobiles** (for the search for the most suitable technological solutions for sustainable mobility); in 2012, the Acea vehicle fleet was extended with 40 FIAT Fiorino Cargo electric vehicles.

## Biodiversity and the Company

**Acea's commitment in favour of Biodiversity** manifests in certain simple but effective action:

- the **protection of the springs and the surrounding areas**, which has made it possible to maintain conditions of elevated biological variety and richness in vast areas of natural interest.
- the **containment of the impact of high and medium voltage overhead lines** which affect areas of particular value, pursued in collaboration with the area protection bodies so as to seek the best technological answer to the numerous problems which the presence of overhead lines for the transportation of electricity causes for the eco-system;

- **collaboration between Acea and Ornithologica** - a non-profit making company involved in the study and protection of birdlife. An important result of this long-term collaboration was the **nesting** of a couple of peregrine falcons on the drinking water reservoir which Acea manages in East Rome, in Salone. The event has occurred every year since 2010 and makes it possible to monitor what takes place in the nest thanks to a **web-cam** focused on the inside. A vast community of researchers and enthusiasts from around the world can thus follow this extraordinary life story each year, from the laying of the eggs until the small falcons take flight into the skies of Rome (see the related box for details).

### A COUPLE OF PEREGRINE FALCONS HAVE NESTED IN SALONE SINCE 2010

The nest for the peregrine falcons on the Salone reservoir, at the Acqua Vergine spring, was mounted in February 2010, in the hope it would be used for the nest of a couple of falcons which were often seen in the area. The nest was occupied and the first reproductive success was registered straightaway, but unfortunately the nesting was unsuccessful in 2011. In 2012, the couple of falcons, which in the meantime had been named Appio and Vergine, occupied the nest for the third time with complete success of the reproductive phase.

On 26 April, when the chicks were already quite big, the ritual of the **ringing** took place which involves the placement of a small ring on the foot of the young falcons so as to provide useful information to the researchers and those tasked with protecting them. It should not be forgotten that these are protected birds of prey, subject to numerous dangers.

The event is intensely followed by the enthusiasts because they have the opportunity of a close up view of the young falcons and observing their rapid development, for weeks, via web images.

The facebook profile (<http://www.facebook.com/Birdcam.it>) created in February 2011 was active for the entire reproductive season and is currently followed by around 6,000 enthusiasts worldwide.

96 The memorandum with Enel for the installation of 200 recharging stations for electric vehicles, was renewed by a new memorandum also signed by Rome City Council in 2012.

## Acea's involvement in round tables

The company was present at conventions, seminars and round tables in 2012 so as to take part in the debate on the most important environmental aspects, bringing its contribution of know-how in the sectors of competence and gaining, at the same time, stimulus and suggestions so as to more fully guide its management choices. Among the numerous initiatives in which it was involved,

mention is made of **Ecomondo 2012**, in Rimini, which was **attended by a number of Acea experts** on the subject of sludge disposal (see related section) and the question of the Carbon Footprint. Again care of the Ecomondo event, Acea took part in the conclusion of the Etats-Généraux of the Green Economy (see the related box for details).

### ▶ THE ETATS-GÉNÉRAUX OF THE GREEN ECONOMY

The Etats-Généraux of the Green Economy represented an important occasion for public consultation, involving hundreds of experts and representatives from Institutions and Organisations which entered into discussions and worked to define a number of proposals for a sustainable future.

The preparatory work for the event saw the participation of around 1,200 people including stakeholders, experts and operators who met in 8 national Programmatic Assemblies in conclusion agreeing on a **programmatic platform** translated into **70 development proposals** which were then presented at Ecomondo on 7 and 8 November 2012.

During the final day in Rimini, the **Minister for the Environment, Corrado Clini** spoke, according to whom the 70 proposals indicated by the Programme for the development of a green economy « may represent a road map for sustainable development and a key for exiting the crisis».

Other information on the website: <http://www.statigenerali.org/>

## Environmental Management

The Group's main production plants have long been managed in compliance with the UNI EN ISO 14001:2004 standard, to permit the highest level of environmental protection. Therefore, the process follows the principle of on-going improvement, satisfactorily experimenting the force of the ISO system approach which each year envisages the establishment of new efficiency and environmental protection goals.

Furthermore, during 2012 an **Integrated Group Quality, Environment, Safety and Energy Policy** was issued, which confirms the system approach.

Each year Acea's commitment is therefore targeted at confirming the existing ISO certification and proceeding with the implementation of management systems at new sites. All the active **Certification** and European **EMAS** registrations were **confirmed in 2012**, concerning:

- the **thermoelectric** and the main **hydroelectric** plants;
- the **San Vittore del Lazio waste to energy** plant;
- the **Orvieto MSW treatment and disposal plant**;
- a number of **water companies**;

- **Acea Reti e Servizi Energetici** and **Acea Distribuzione**.

Specifically, the hydroelectric plants A. Volta (Municipality of Castel Madama, RM) and G. Ferraris (Municipality of Saracinesco, RM) were certified for the first time in accordance with the UNI EN ISO 14001 standard in July 2012. (also see *Corporate identity, The management systems*).

Despite the commitment of the operating companies to keep the management system which oversees environmental issues efficient, situations can come about, mostly caused by contingent circumstances, which generate non-compliances liable to fines applied by the **Competent supervisory bodies**. During 2012, Group companies received a total of **around 600 monetary fines** for a total value of **Euro 544,132** (of which Euro 452,924 relating to Acea Ato 2, Euro 17,367 relating to Acea Ato 5, Euro 21,825 relating to Umbra Acque, and Euro 52,016 relating to Publiacqua).

## Environmental expenditure

The European Union has defined environmental expenditure in the Recommendation 2001/453/CE, as: *“the cost of measures adopted by a company, directly or via third parties, for the purpose of **preventing, reducing or repairing damages to the environment deriving from its operations**”*.

**2012 environmental expenditure**, limited to just the Group companies which already avail of an

environmental accounting system (around 90% of the total), amounted to around **Euro 127 million**, divided up as illustrated in table No. 73. The figure is in line with last year (in 2011 environmental expenditure amounted to Euro 100 million), considering that a water company (Publiacqua) provided its environmental accounts figures for the first time this year.

**TABLE NO. 73 - ENVIRONMENTAL EXPENDITURE OF THE MAIN OPERATING COMPANIES (2010-2012)**

Group companies (millions of Euro)	investments			current expenditure		
	2010	2011	2012	2010	2011	2012
Acea Produzione	6.50	13.59	15.09	6.60	0.37	0.79
Gruppo ARIA	0.41	0.01	0.0	1.10	6.10	7.91
Aquaser	0.24	0.40	0.81	1.03	0.99	1.05
Acea Distribuzione	0.41	0.38	0.71	0.48	1.44	0.28
Water services (*)	46.20	72.00	70.24	6.54	4.94	30.18
<b>Total</b>	<b>53.76</b>	<b>86.38</b>	<b>86.85</b>	<b>15.75</b>	<b>13.84</b>	<b>40.21</b>

(\*) Laboratori, Acea Ato 2, Acea Ato 5, Publiacqua, Acquedotto del Fiora, Umbra Acque and Acque.

Recommendation 2001/453/CE also placed the costs for **waste management** under **environmental expenditure**. The Group water companies, producers of great quantities of **treatment sludge** and other

industrial residue, spent **around Euro 31 million** for the **disposal** of the same in 2012, which joins the totals shown in the table.

# Energy

## THE BOUNDARIES

This section deals with Acea Reti e Servizi Energetici, Acea Distribuzione, Acea Produzione and the A.R.I.A. waste to energy plants. Furthermore, the activities of SAO are described, a company which deals with the collection, recovery, treatment and disposal of waste, in a specific box.

The energy supply chain managed by the Acea Group includes the following activities:

- production of electricity and heat;
- electricity distribution in the Rome and Formello area, including the management of public lighting;
- sale of electricity, heat and gas.

The action essential for guaranteeing a reliable supply of energy is manifold and interconnected, starting off from the need to make the production phase sustainable. In fact, various problems come about at the electricity generation plants, of both an environmental nature linked to the choice of the primary sources and the methods for running the plant, and a social nature, deriving from the inevitable mistrust of the resident population with regard to the presence in the area of large industrial installations, as well as linked to the management inexpensiveness (maintenance, modernisation,

technological innovation, etc.). Furthermore, it is indispensable to be able to avail of a well-dimensioned and duly functioning distribution network, in which the energy flows are managed on a cost effective basis, with quality of the service and universal access. The end result depends on the contribution of each operator present in the segment assigned. Acea is aware that it is part of this chain of responsibility and faces the challenges investing in modern technological plants, in efficient networks and infrastructures, and in motivated and competent staff. Specifically, mention should be made of the **heavy commitment** made over the years for the **modernisation**, the **improvement of the reliability** and the **technological innovation** applied to the **electricity distribution infrastructures**: networks and stations (see *Socio-economic relationships with the stakeholders, Customer and the community, Quality supplied in the energy area*).

## Energy generation: fossil and renewable energy sources

### Generation and the Group plants

Acea Produzione, whose share capital is wholly-owned by Acea SpA, manages **a series of electricity generation plants**:

- two thermoelectric plants located in the municipal area of Rome; Montemartini (around 80 MW) and Tor Di Valle (around 145 MW), and
- 7 hydroelectric plants located in Lazio and Abruzzo (around 120 MW),

for **around 345 MWe in total of installed power available**.

The traditional generation base is flanked by two waste to energy plants located respectively in San Vittore del Lazio and Terni, for total power of 25 MW, destined to double in the next few months, once the revamping work underway has finished. In conclusion, around 46 MW of photovoltaic plants should be considered, installed in central/southern Italy, a significant portion of which

(32.5 MW) had however been sold off to RTR Capital, a subsidiary of Terra Firma, towards the end of the year.

**Total electricity production** in 2012 came to **around 652 GWh** (544 GWh in 2011). The considerable rise was essentially due to the Salisano plant becoming fully up and running (12 months), after a shutdown for revamping which lasted for most of 2011 and the regular functioning of both the new lines of the waste to energy plant at San Vittore del Lazio (+ 46%).

With respect to 2010 and previous years, thermoelectric production of the Tor di Valle plant was almost zero (10.34 GWh produced in the year compared with 176.3 GWh in 2010), essentially consequent to the trend in market prices unfavourable for this type of plant (see *Environmental accounts*).

The portion generated **from renewable sources**, with around **530 GWh**, was clearly predominant (over 81% of the total), with a contribution of **361 GWh from hydroelectric**, **109 GWh from waste to energy** and **60 GWh from photovoltaic** (table No. 74).

Generation **from waste to energy activities**, equating to **218 GWh**, although up sharply with respect to the previous year (+ **46%**), is still lower than potential, due to both expected revamping of the first line of the San Vittore del Lazio plant, currently underway, and the continuation of the shutdown of the Terni plant, where at the end of 2012 revamping work commenced two years

ago concluded.

Around half the 2012 generation from waste to energy is considered **renewable** since it is associated with the combustion of the biodegradable fraction of WDF, in fact equal to 50% of the total.

In conclusion, **heat generation and distribution** should be recalled: at the Tor di Valle thermoelectric plant, **thermal energy** was generated for around **88 GWh**, used to serve the customer base of around **34,000 inhabitants** in the south of Rome (Mostacciano, Torino, Mezzo Cammino)<sup>97</sup> by means of a dedicated district heating network.

**TABLE NO. 74 - ENERGY PRODUCED, BROKEN DOWN BY PRIMARY ENERGY SOURCE (2010-2012)**

TJ (GWh) (\*)

primary energy source	2010	2011	2012
diesel (gas oil)	10.116 (2.81)	16.8 (4.7)	7.0 (1.9)
natural gas (combined cycles and co-generation)	634.7 (176.3)	63.9 (17.8)	37.2 (10.3)
waste to energy (50% of total)	226.1 (62.8)	268.9 (74.7)	392.9 (109.1)
<b>total thermoelectric</b>	<b>870.9 (241.9)</b>	<b>349.6 (97.1)</b>	<b>437.3 (121.5)</b>
hydroelectric	1,799.0 (499.7)	1,155.2 (320.9)	1,298.9 (360.8)
waste to energy (50% of total)	226.1 (62.8)	268.9 (74.7)	392.9 (109.1)
photovoltaic	65.4 (18.2)	185.8 (51.6)	217.5 (60.4)
<b>total renewable</b>	<b>2,090.3 (580.7)</b>	<b>1,609.9 (447.2)</b>	<b>1,909.3 (530.4)</b>
<b>grand total</b>	<b>2,961.2 (822.6)</b>	<b>1,959.5 (544.3)</b>	<b>2,346.3 (651.8)</b>

(\*) 1 GWh= 3.6 TJ

Table No. 75 illustrates the primary sources used, expressed in energy terms (TJ and GWh). The conversion efficiency of Acea photovoltaic panels comes to around 14% (100 kWh of solar energy on the panels, transforms into 14 kWh of electricity).

It can be noted that in the last two years, the percentage of waste to energy in the electricity generation mix has

increased progressively, demonstrating the technological maturity and efficiency of the two new waste to energy lines of the plant running at San Vittore del Lazio.

The ratio between total electricity generated, indicated in table No. 74, and the potential energy from primary sources used (table No. 75) reveals an **average conversion efficiency** of around **36%** in 2012.

<sup>97</sup> In detail, district heating serves 34,152 inhabitants (2012 figures) and concerns buildings for the volume of 3,118,962 cubic metres.

**TABLE NO. 75 - POTENTIAL ENERGY, BROKEN DOWN BY PRIMARY ENERGY SOURCE USED (2010-2012)**

TJ (GWh) (\*)

primary energy source	2010	2011	2012
diesel (gas oil)	39.0 (10.8)	64.4 (17.9)	27.0 (7.5)
natural gas (combined cycles and co-generation)	1,542.8 (428.5)	197.6 (54.9)	141.1 (39.2)
waste to energy	2,227.7 (618.7)	2,378.2 (660.6)	3,273.8 (909.4)
hydroelectric	2,122.2 (589.5)	1,370.5 (380.7)	1,571.7 (436.6)
photovoltaic solar	468.0 (130.0)	1,325.8 (368.3)	1,553.9 (431.6)
<b>grand total</b>	<b>6,399.7</b> <b>(1,777.5)</b>	<b>5,336.5</b> <b>(1,482.5)</b>	<b>6,567.5</b> <b>(1,824.3)</b>

(\*) 1 GWh= 3.6 TJ

Certain descriptive data of the Group's thermoelectric and hydroelectric plants is provided in table No. 76 and in the subsequent fact sheets. The waste to energy and photovoltaic plants are by contrast described in the pertinent sections (also see the *Environmental accounts*).

**TABLE NO. 76 - ACEA PRODUZIONE ELECTRICITY PLANTS**

thermoelectric plants	hydroelectric plants
Tor di Valle plant: combined cycle section(*) (Rome) natural gas fuel – gross output 125.7 MW	A. Volta Castel Madama plant (Rome) gross output 9.4 MW
Tor di Valle Plant: co-generation section (**) (Rome) natural gas fuel – gross output 19.3 MW	G. Ferraris Mandela plant (Rome) gross output 8.5 MW
Montemartini plant (Rome) diesel fuel – gross output 78.3 MW	Salisano plant (Rieti) gross output 24.6 MW
	G. Marconi Orte plant (Viterbo) gross output 20 MW
	Sant'Angelo plant (Chieti) gross output 58.4 MW
	Cecchina plant (Rome) gross output 0.4 MW
	Madonna del Rosario plant (Rome) gross output 0.4 MW
<b>grand total: gross output 345 MW</b>	

(\*) The combined cycle unit of the Tor di Valle Plant is equipped with bleeding facilities on the steam turbine

(\*\*) The co-generating turbogas unit at Tor di Valle is open-cycle in type and supplies the district heating service to the districts of Torino Sud, Mezzocammino and Mostacciano.

## hydroelectric production

### A. VOLTA CASTEL MADAMA PLANT (ROME)

plant type	run-of-river water
type of use of energy produced	coverage of basic needs
rated output	9.4 MW
capacity of the basin or reservoirs interlocked	148,000 m <sup>3</sup>
available head (from concession)	40.29 m
maximum derivable delivery	25 m <sup>3</sup> /s
gross electricity produced in 2012	15.55 GWh

### G. FERRARIS MANDELA PLANT (ROME)

plant type	run-of-river water
type of use of energy produced	coverage of basic needs
rated output	8.5 MW
capacity of the basin or reservoirs interlocked	6,400 m <sup>3</sup>
available head (from concession)	27.15 m
maximum derivable delivery (from concession)	30 m <sup>3</sup> /s
gross electricity produced in 2012	10.26 GWh

### SALISANO PLANT (RIETI)

plant type	run-of-river water (aqueduct)
type of use of energy produced	coverage of basic needs
rated output	24.6 MW
available head	85.94 m Capore 242.50 m Peschiera
maximum derivable delivery (from concession)	5.5 m <sup>3</sup> /s Capore 10 m <sup>3</sup> /s Peschiera
gross electricity produced in 2012	175.94 GWh

### G. MARCONI ORTE PLANT (TERNI)

plant type	reservoir
type of use of energy produced	coverage of peak needs
rated output	20 MW
capacity of the basin or reservoirs interlocked	6 million m <sup>3</sup>
available head (from concession)	11.45 m
maximum derivable delivery (from concession)	180 m <sup>3</sup> /s
gross electricity produced in 2012	48.07 GWh

### SANT'ANGELO PLANT (CHIETI)

plant type	reservoir
type of use of energy produced	coverage of peak needs
rated output	58.4 MW
capacity of the basin or reservoirs interlocked	83.30 million m <sup>3</sup> Bomba 21 million m <sup>3</sup> Casoli
available head (from concession)	141.20 m
maximum derivable delivery (from concession)	40 m <sup>3</sup> /s
gross electricity produced in 2012	108.77 GWh

## hydroelectric production - minor plants

### CECCHINA (ROME)

plant type	run-of-river water (aqueduct)
type of use of energy produced	coverage of basic needs
rated output	0.4 MW
maximum derivable delivery (from concession)	1.1 m <sup>3</sup> /s
available head (from concession)	30 m
gross electricity produced in 2012	0.95 GWh

### MADONNA DEL ROSARIO (ROME)

plant type	run-of-river water (aqueduct)
type of use of energy produced	coverage of basic needs
rated output	0.4 MW
maximum derivable delivery	0.825 m <sup>3</sup> /s
available head (from concession)	43 m
gross electricity produced in 2012	1.26 GWh



## thermoelectric production

### TOR DI VALLE PLANT - COMBINED CYCLE (ROME)

fuel type	natural gas
type of use of energy produced	mid-merit (electricity) and district heating (thermal energy)
rated output of a.c. generators	41.04 MW turbogas No. 1 41.04 MW turbogas No. 2 43.6 MW Steam Unit
plant surface area	35,000 m <sup>2</sup>
chimney stack height	30 m
quantity of fuel consumed in 2012	408.474 kNm <sup>3</sup>
gross electricity produced in 2012	1.09 GWh
total gross efficiency in 2012	25.23%

### MONTEMARTINI PLANT (ROME)

fuel type	gas oil (diesel) with low sulphur content
type of use of energy produced	coverage of peak needs
rated output of a.c. generators	26.1 MW Turbogas No. 1 26.1 MW Turbogas No. 2 26.1 MW Turbogas No. 3
chimney stack height	1 x 13.35 m + 2 x 20 m
quantity of fuel consumed in 2012	0.76 MI
gross electricity produced in 2012	1.94 GWh
total gross efficiency in 2012	25.95%

### TOR DI VALLE PLANT - CO-GENERATION (ROME)

fuel type	natural gas
type of use of energy produced	coverage of peak needs (electricity) and district heating (thermal energy)
rated output of a.c. generators	19.32 MW <sub>e</sub>
chimney stack height	20 m
quantity of fuel consumed in 2012	3.328 kNm <sup>3</sup>
gross electricity produced in 2012	8.05 GWh
total gross efficiency in 2012	26.54% only electricity 72.87% with heat recovery

The figures concerning the installed capacity are broken down by energy source and indicated in table No. 77. There was an essential confirmation of the previous year's situation.

**TABLE NO. 77 – GROUP INSTALLED ELECTRIC POWER BROKEN DOWN BY ENERGY SOURCE (2010-2012)**

(MW)

energy source	2010	2011	2012
diesel (gas oil)	78.3	78.3	78.3
natural gas (combined cycles and co-generation)	144.9	144.9	144.9
waste to energy (*)	20	25	25
hydroelectric	139.3	121.7	121.7
photovoltaic (**)	25	52	46
<b>grand total</b>	<b>407.5</b>	<b>421.9</b>	<b>415.9</b>

(\*) As already occurred in 2011, during 2012 the Terni WtE plant was shut down for completion of the revamping work, while the San Vittore del Lazio plant was only considered for the two lines running.

(\*\*) The decrease in the installed power of the PV, in 2012, was due to the start of disposal of the assets.

The availability indexes for Acea Produzione plants by installation and the average output in the last three years, confirmed as positive on average, are shown in tables 78 and 79.

**TABLE NO. 78 - AVAILABILITY INDEXES FOR ACEA PRODUZIONE PLANTS (2010 - 2012)**

energy source	plant	overall availability (%)			scheduled unavailability (%)			unscheduled unavailability (%)		
		2010	2011	2012	2010	2011	2012	2010	2011	2012
natural gas	Tor Di Valle (combined cycle - CCGT)	89.5	95.2	95.9	5.6	0.0	0.0	5.0	4.8	4.1
	Tor Di Valle (co-generation section)	89.1	99.2	99.4	1.3	0.8	0.0	9.6	0.0	0.6
gas oil	Montemartini	91.4	99.9	100.0	1.9	0.0	0.0	6.7	0.1	0.0
hydroelectric	Salisano	99.4	37.1	99.3	0.4	62.9	0.1	0.2	0.0	0.6
	S. Angelo	86.9	86.9	92.3	3.7	8.4	4.1	9.4	4.6	3.6
	Orte	99.0	69.3	75.5	0.9	30.6	17.8	0.1	0.1	6.8
	Castel Madama	97.0	99.4	98.5	2.1	0.5	1.5	0.8	0.2	0.0
	Mandela	95.3	97.5	99.4	1.9	0.3	0.2	2.8	2.2	0.4
	minor installations	67.7	94.7	85.2	0.0	0.1	0.0	32.3	5.2	14.8

NB: the figure for the hours of scheduled/unscheduled unavailability cannot be provided as the indexes are calculated taking into account partial shutdown and load limits as well.

The following definitions must be taken into account in order to correctly interpret the figures provided in Table 78:

- **overall availability (%)**; this index refers to the period in which a plant or section thereof is available to produce energy, including periods it was not operational due to electricity market needs. It is obtained from the ratio between the available energy - equal to the difference between the maximum energy which can be generated and the unavailable energy (see following points) and the maximum energy which can be generated in the month.
- **scheduled unavailability (%)**: this index refers to

the period in which a plant or section thereof was unavailable due to scheduled events (maintenance, etc.). It is obtained from the ratio between the energy unavailable during the scheduled event and the maximum amount of energy that can be generated in the month.

- **unscheduled unavailability (%)**: this index refers to the period in which a plant or section thereof was unavailable due to fault. It is obtained from the ratio between the energy unavailable during the fault event and the maximum amount of energy that can be generated in the month.

**TABLE NO. 79 - AVERAGE EFFICIENCIES OF THE ACEA PRODUZIONE PLANTS (2010-2012)**

plant	average efficiency 2010 (%)	average efficiency 2011 (%)	average efficiency 2012 (%)
Tor Di Valle (combined cycle - CCGT)	42.8	40.7	n.a (*)
Tor Di Valle (co-generation section)	74.9	73.6	72.9
Montemartini	25.9	26.1	26.0
Salisano	85.9	85.8	88.0
S. Angelo	79.0	79.0	70.5
Orte	98.6	98.6	98.6
Castel Madama	82.7	83.0	82.6
Mandela	91.4	91.4	91.4
minor installations	57.1	58.1	62.1

(\*) The extremely low levels of production reported in the year under review do not make it possible to calculate a significant output indicator.

## Waste to energy

Both the production of Waste derived Fuel (WDF) and the treatment of the same in dedicated plants are recovery processes aspiring to integrated policies for the management of the waste which tends to limit its conferral to landfills.

The waste to energy process, classified as per section IV of Italian Legislative Decree No. 152/2006 under recovery operations (R1), therefore represents a rational closure of the waste management cycle especially in the cases where reuse of the organic materials deriving from the separate collection of municipal waste is not economically advantageous.

Waste to energy activities in Acea are entrusted to **A.R.I.A.**, which carries out the same via **two plants** located in San Vittore del Lazio and Terni.

The **San Vittore del Lazio plant** (FR), which will be

able to treat around 320,000 tons a year of WDF once revamping work has been completed, carries out a significant role in the management of municipal waste in the Lazio Region. During 2012, the plant **treated roughly 218,000 tons of WDF and produced around 218 GWh of gross electricity** thanks to the full bringing onto stream of two of the three waste treatment plants envisaged as of 2015.

The installation, which had already implemented an environmental management system compliant with both the **UNI EN ISO 14001:2004** standard and the European **EMAS** Regulations, extended said system to the two new lines at the end of 2011. Furthermore, in 2012 the certification audit of the **safety management system as per OHSAS 18001:2007** was carried out with a positive outcome.

**TABLE NO. 80 - SAN VITTORE DEL LAZIO WASTE TO ENERGY PLANT: RUNNING FIGURES (2011-2012)**

		2011	2012
WDF burnt (*)	t	158,557	218,256
gross electricity produced	(GWh)	149.43	218.24
electricity efficiency (**)	(%)	23.0	24.0
recovery capacity (***)	(MWh/t)	0.9	1.0

(\*) Together with the WDF, the plant uses natural gas (3,056,153 Nm<sup>3</sup> in 2012) as auxiliary fuel to constantly maintain optimum conditions in the combustion chamber.

(\*\*) Ratio of gross electricity produced to total energy load introduced with the waste used (Low calorific value of the waste considered conventionally as 15,000 kJ/kg).

(\*\*\*) Ratio of gross electricity produced to quantity of waste treated.

The **Terni plant** has a **single waste to energy line** with a potential of 52 MW<sub>t</sub> and uses **paper industry pulper** as fuel, a particular residue from the processing of cellulose for the production of paper, from which

the sole resource technically still usable is recovered: energy. **At the end of December 2012**, the plant **was started up again** after a shutdown of around two years for the performance of revamping work.

## SAO'S WASTE MANAGEMENT SERVICES: SUSTAINABLE MANAGEMENT OF WASTE

SAO (Servizi Ambientali Orvieto), operates in the waste management sector via its own treatment, recovery and disposal plants located in Pian del Vantaggio, Orvieto (TR). It manages a landfill for non-hazardous waste and a selection, cleansing and composting plant, also seeing to the municipal hygiene services for a number of municipalities in the Province of Terni.

In line with the Acea Group's environmental policy, SAO SpA handles the activities seeking to pursue the maximum recovery of the materials, favouring the production of energy from renewable sources and the reduction of waste to be sent to landfills.

In detail, during 2012 the following took place:

- the launch of the first phase of expansion of the landfill run in the Municipality of Orvieto.
- the doubling of the operations of the plant for exploiting energy from biogas produced by the landfill, which will make it possible to achieve a total of 2 MW.

The completion of a new anaerobic treatment line for organic waste is envisaged for July 2013, which will make it possible to produce electricity from the combustion of biogas released by digestion.

SAO operates in accordance with an integrated Environment and Safety Management System certified in accordance with the **UNI EN ISO 14001:2004 and OHSAS 18001:2007** standards. It also holds **EMAS registration**.

## Energy distribution: networks and smart grids

### Distribution networks

Acea Distribuzione is the Group company which holds the Ministerial concession for the management of the **electricity distribution network** serving Rome and Formello, covering around **29,000 km** and capable of serving roughly 2.7 million resident inhabitants.

In terms of volumes of electricity distributed, around 12,000 GWh per year, Acea is the third leading Italian operator in the sector. Table No. 81 shows the main plant figures.

**TABLE NO. 81 - OVERHEAD AND UNDERGROUND DISTRIBUTION LINES AND PLANTS: NUMBERS (2010-2012)**

type	unit of measurement	2010	2011	2012
<b>plants and outputs</b>				
HV/HV - HV/MV primary sub-stations	No.	68	68	69
HV/HV and HV/MV transformers	No.	173	174	173
power transformation	MVA	7,623	7,693	7,750
secondary sub-stations running	No.	12,982	12,979	13,030
MV/MV - MV/LV transformers	No.	12,567	12,671	12,749
transformation capacity	MVA	5,750	5,845	5,953
<b>overhead and underground networks</b>				
high voltage networks - overhead lines	Km	372	372	372
high voltage networks - underground lines	Km	241	241	241
medium voltage networks - overhead lines	Km	494	488	475
medium voltage networks - underground lines	Km	9,526	9,705	9,775
low voltage networks - overhead lines	Km	1,697	1,689	1,683
low voltage networks - underground lines	Km	16,997	17,148	17,324

**Energy losses on the network**, due mainly to the heating of the conductors as a result of the Joules effect, come to **around 6.4% of total energy conveyed**, in line with the average values in Italy (see the Environmental accounts for greater details).

The preparatory activities for the launch of work concerning reorganisation of the high (150 kV) and very high (220 and 380 kV) voltage distribution and transmission network continued in 2012, according to the Memorandum of Intent signed by Acea Distribuzione, Rome City Council and Terna SpA. The project envisages the construction of 123 km of new overhead lines and the demolition of nearly 300 km of overhead lines existing in an area which passes through a good 11 protected natural areas. The objective is to obtain the prescribed authorisations in 2013 and plan the launch of the work for the following year.

### Smart grids

Acea Distribuzione presented the AEEG with a **smart grid project** in November 2010, which was chosen and

included among the pilot projects receiving incentives<sup>98</sup>. The application of the innovative technology concerns a network already running in the Malagrotta - Ponte Galeria area and represents the first step in a more extensive network modernisation plan. The pilot project was launched in January 2011; work **continued during 2012** and will be completed during the first half of 2013, a little later than expected. The related box illustrates the stage of completion and the work carried out during the year for each of the six main sections.

Another project devised by Acea Distribuzione for the purpose of improving the performances of the networks thanks to the evolution and integration of the operating systems dedicated to their management is the **Smart-network Management System**. Thanks to the innovative contents it features, the project was presented in 2010 to the Ministry for economic development with application to access the financial subsidies envisaged by the fund for technological innovation (FIT); following the positive conclusion of the contractual stage, in July 2012 the company presented the final project (see box for further details).

<sup>98</sup> See Resolution ARG/elt 12/11.

## ACEA DISTRIBUZIONE'S SMART GRID PILOT PROJECT: STAGE OF COMPLETION IN 2012

Acea Distribuzione's Smart grid project is divided up into the following six main sections:

1. **MV network automation** (evolved automatic selection of section fault; handling of the distributed generators - remote tripping and calibration change) – the **installation of the field apparatus was completed and the evolved automation was brought into service** on a distributor without distributed generation. During the second half of 2012, tests were carried out in the testing field (care of CP Flaminia) and the installations in the field necessary for the running of the evolved automation on the distributors with distributed generation. **The stage of completion at the end of 2012 was 95%**. The field tests for the distributors with distributed generation will be completed by March 2013.
2. **monitoring of the MV and LV network** – the monitoring chapter in 2012 achieved completion with the installation, test & inspection and bringing onto stream of all the apparatus necessary for the acquisition of the electrical and environmental magnitudes relating to the MV and BV networks. **The stage of completion at year end was 100%**.
3. **new criteria for managing the MV network** (load flow management; optimisation of the voltage profiles; minimisation of the losses) – during 2012, the "RSE Vocant" optimiser model was implemented in the remote-control system; the tests carried out in the field had a positive outcome. Collaboration with La Sapienza University in Rome made it possible to define, develop and validate a genetic algorithm for the **topological optimisation of the network** which takes into account the minimisation of the losses, the load forecasts and the supply on the network. **The stage of completion at the end of 2012 was 85%**. During the first half of 2013, the field tests will be completed;
4. **e-car & storage** (smart storage; MV network management and control system with interface for photovoltaic plant, electric vehicle and thyristor voltage regulator equipment -TVR) – during the year, the **first phase of the project was completed with the installation of the storage system co-ordinated with a photovoltaic plant and with recharging stations**. During 2012, analysis was carried out on the functioning of the complex and the **test & inspection was carried out on the connection of the stations installed with a control center** (known as Office Center) so as to experiment the remote management of the same. The installation of the TVR device is envisaged during 2013 with the related interface towards Acea Distribuzione's Electric Operations Centre for the regulation of the voltage on the MV distributor on which installation is envisaged. **The stage of completion at year end was 100%**.
5. **primary station diagnostics** – with regard to the CP diagnostics, the **aspects envisaged both with regard to the field and centre were completely installed**; the testing and streamlining stage for the system concluded in the first few months of 2012. **The stage of completion at year end was 100%**.
6. **identification of the trigger point for transitory faults** - the **field installation phase has concluded** and the installation at the centre (CEDET) of a monitoring and control station for the entire system has been completed. The monitoring stage ended in the second half of 2012. **The stage of completion at the end of 2012 was 100%**.

## THE TECHNOLOGICAL INNOVATION PROJECT SMART-NETWORK MANAGEMENT SYSTEM

The *Smart-network Management System (SMS)*: *technological evolution in the management of the electricity distribution network* project essentially came about due to the need to integrate and **evolve the operating system for the management of the electricity networks** for the purpose of **improving the performances of said networks**, in accordance with the quality objectives established by sector legislation. In fact, it is well known that over the space of the last decade the AEEG has issued numerous resolutions which, overall, define important improvements to be achieved with regard to the quality and efficiency of the electricity distribution service.

As a result of its innovative contents, the project falls within the regulations established at national level for the support of technological innovation and, therefore, in June 2010, Acea Distribuzione presented the Ministry for economic development with an application for **access to the financial subsidies availing of the fund for technological innovation (FIT)**, as per the envisaged procedures. The project, which has a duration of three years and is divided up into **several sub-projects** aimed at making the most of and developing the initiatives already established by the company for improving the continuity of the electricity service and increasing the operating efficiency, was - with regard to the preliminary and layout phases - effectively launched in July 2010. At the end of 2010, the Ministry formalised the go-ahead as per the procedures envisaged by Italian Ministerial Decree dated 14 December 2009. This procedure has continued since then: during 2011, operating activities were launched for the sub-projects along with their systematic monitoring and, at year end, the contractual phase with the Ministry was launched. Further to **a specific focus meeting with the scientific committee of the Ministry**, Acea Distribuzione presented a report aimed at specifying the contents and the innovative nature of the initiative, as well as the assimilation of certain guidelines. **The negotiation stage had a positive outcome** and in July 2012 **Acea Distribuzione was able to present the final project proposal**, for a total amount of around Euro 11.6 million. In December 2012, the first appraisal visit was made by the Ministerial representatives, carried out with the aim for Acea Distribuzione of providing a response to a number of requests for further information by January 2013.

## Energy savings

### Energy saving certificates and co-generation

In Italy, for around a decade, a very advanced legislative framework (Italian Ministerial Decree dated 20 July 2004 and Italian Ministerial Decree 21 December 2007 supplemented by Italian Legislative Decree No. 115/2008) has existed, which pushes operators in the energy sector to achieve increasingly challenging and demanding energy saving initiatives. In the period between July 2004 and 31 December 2011, energy savings for more than 13 million toe (ton of oil equivalent) had been certified in total by the Gas and Electricity Authority, thanks to the white certificates system.

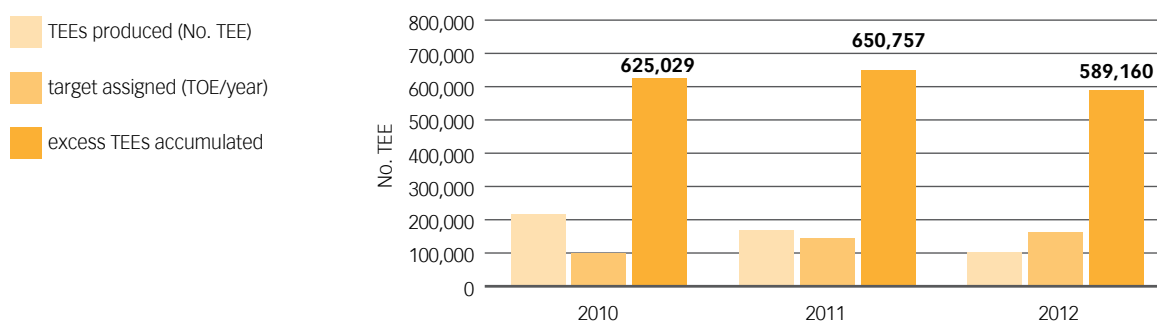
White certificates, also known as “Energy Efficiency Certificates” (TEE), are **tradable instruments** which certify the achievement of **energy savings in the end**

**use of energy** by means of measures for increasing energy efficiency.

On 28 December 2012, an interministerial decree introduced **new national quantitative energy savings objectives** to be achieved between 2013 and 2016, on a consistent basis with the **National Energy Strategy (SEN)** issued by the Italian Government in view of the European objectives as of 2020.

In this context, Acea has taken steps to endow itself with its own ESCO, **Acea Reti e Servizi Energetici**, to seize the various opportunities offered by the energy savings market. **In 2012, certified savings were achieved for 101,798 toe.**

**CHART NO. 34 - ENERGY SAVING TARGETS ASSIGNED TO ACEA DISTRIBUZIONE, SURPLUS TEEs (Energy Efficiency Certificates) PRODUCED (2010 – 2012)**



year	target assigned (toe/year)	TEEs produced (No. of TEEs)	surplus TEEs accumulated since 2005 (No. of TEEs)
2010	215,185	99,149	625,029
2011	169,430	143,702	650,757
2012	101,798	163,776	589,160

The main savings initiatives addressing the public, achieved in previous years, concerned: the direct distribution of low energy consuming light bulbs – CFL (50%); the direct distribution of vouchers for the free allocation of low energy consuming light bulbs – CFL (22%); the direct distribution of flow reducers for the saving of domestic hot water (18%) and other initiatives on inverter-motors, public lighting, etc. (10%).

The activities which Acea Reti e Servizi Energetici is responsible for include the design and construction of **tri-generation plants**<sup>99</sup> which produce electricity, heat and refrigeration, in a combined manner. **In 2012**, the subsidiary company **Ecogena managed 6.3 MW of co-generation power** and scheduled a series of new ventures to be achieved in Rome, in the neighbourhoods of EUR, Cinecittà and Laurentino.

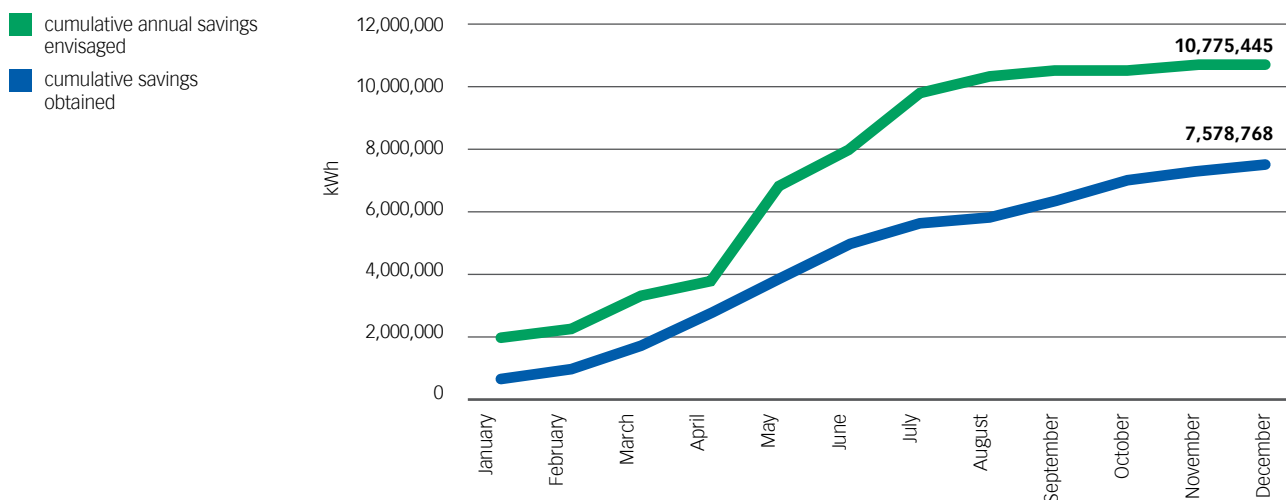
<sup>99</sup> Co-generation, in other words combined production of electricity and thermal energy, makes it possible to achieve high efficiencies: between 80 and 90%. Tri-generation is a particular application allowing use of part of the thermal energy recovered to produce refrigerating energy in the form of refrigerated water for air conditioning or industrial processes.

### Energy efficiency within the Acea Group

The objective of containing its energy consumption by means of an effective **recovery of efficiency in the processes handled**, is considered to be a priority by the Group. Accordingly, numerous energy efficiency measures have been achieved, which above all else concerned the **companies in the water area**. The following chart shows **the results obtained in 2012**, greatly **superior to those scheduled**.

Again in the water area, mention should be made of the activities launched in 2012 for the implementation of Energy management systems as per the **ISO 50001 standard**. **Acea Ato 5**, operator of the SII in the province of Frosinone, **has already obtained certification of its system**, one of the first in Italy to do so.

**CHART NO. 35 – WATER COMPANIES: OVERALL PROGRESS OF THE ENERGY EFFICIENCY PLANS (2012)**



With regard to **energy audit activities**, the Group carries out inspections regularly at its plants. In particular, during 2012 A.R.I.A. carried out an energy audit **at the San Vittore del Lazio plant** identifying certain improvement action which will be implemented in 2013.

# Water

## THE BOUNDARIES

The boundaries include Acea Ato 2, illustrated in greater depth, Acea Ato 5, Acque, Gori, Acquedotto del Fiora, Publiacqua and Umbra Acque.

With regard to sludge disposal and recovery activities, reference should be made to the Aquaser Group companies, Kyklos and Solemme.

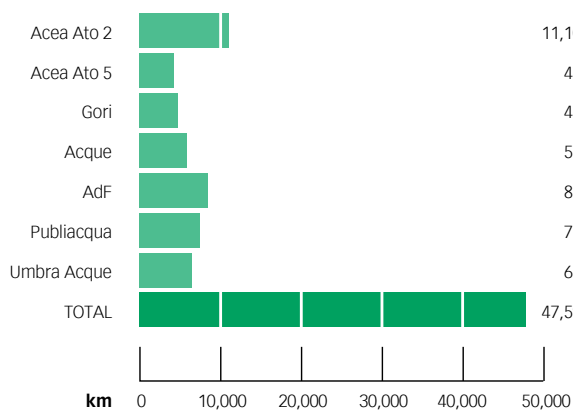
The environmental figures of the water companies are 100% attributable to Acea, irrespective of the shareholding of the holding company in the share capital, due to the role in the business management of the activities.

The *The Future We Want* document, drawn up at the end of the Rio+20 United Nations Conference, discloses that «water is at the centre of sustainable development because it is closely linked to a series of important global challenges»<sup>100</sup>, including support action for the ecosystems/water; the measures for dealing with floods and drought (adaptation action of the Framework Agreement on Climate Change)<sup>101</sup>; the mobilisation of financial instruments and investments in infrastructures for the water and sanitary services; the need to increase efficiency in the use of water, reduce waste and losses, etc. The management activities of the integrated water service carried out by the Acea Group companies should be placed within this context, which is important both globally and locally.

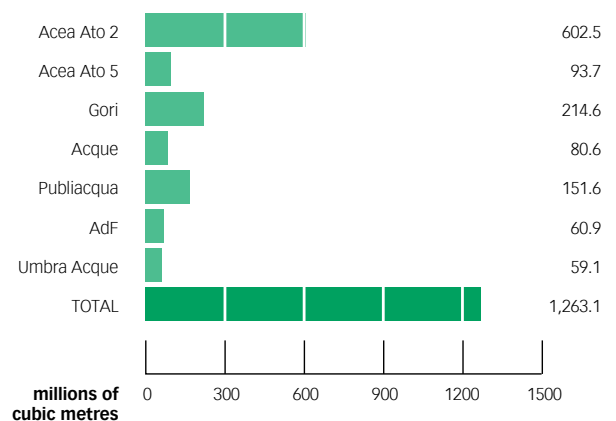
After decades of water management concentrated in the Italian capital, today Acea manages the integrated

water service (SII) in Optimum Areas of Operation (ATOs) which fall within four regions - Lazio, Campania, Umbria and Tuscany - qualifying as national leader in the sector in terms of inhabitants served; it is also active abroad<sup>102</sup>. The customer base served overall in Italy comes to around **8.6 million inhabitants**, with **volumes of drinking water** introduced onto the network of around **1,263 million cubic metres** in 2012 (see chart No. 37). In ATO 2- Central Lazio alone, which includes the city of Rome and another 111 municipalities - of which 73<sup>103</sup> acquired under management as of 31 December 2012 - the **volume of water introduced onto the network** serving roughly 3.7 million inhabitants, resident and floating population, came to around **602.5 million cubic metres** (of which 473 million cubic metres on the “historic network” of Rome and Fiumicino).

**CHART NO. 36 - THE GROUP'S WATER DISTRIBUTION NETWORK IN ITALY (2012)**



**CHART NO. 37 - VOLUMES OF DRINKING WATER INTRODUCED INTO THE NETWORK: BY COMPANY (2012)**



NB: the network includes aqueducts, transportation and distribution. The 2011 figures were used for Acque spa.

100 Taken from : Green Economy, Per uscire dalle due crisi, 2012 Report.

101 The Framework Agreement on Climate Change was signed in 1992, in Rio De Janeiro, during the World Conference on the environment and development (United Nations Conference on Environment and Development - UNCED): United Nations Framework Convention on Climate Change – UNFCCC.

102 In Peru, Honduras, the Dominican Republic and Colombia; countries where, between the integrated water services and commercial aspects of the service a total of 9.7 million inhabitants are served. The percentage of foreign business with regard to total revenues from the water sector comes to 4.5%. On the basis of the GRI indicators, it was therefore established that a concise illustration should be provided in the section Activities abroad to which reference is made.

103 In another 21 municipalities the SII was managed partially or other services were performed.



## Activities in Central Lazio: springs and protected areas

The quality of the water service provided in central Lazio is the result of a wealth of knowledge acquired by the staff of Acea Ato 2 over many years of commitment in the management of the integrated water service and the exceptional quality of the drinking water distributed is partly a natural gift which lies in the extraordinary features of the resource withdrawn from numerous dedicated springs: Peschiera, Capore, Acqua Marcia, Acquoria, Salone (Acquedotto Vergine), Vallepietra and Ceraso springs integrated marginally by withdrawals from a number of well fields (Pantano Borghese, Finocchio,

Torre Angela, Doga-nella; Ceraso; former Casmez) and Lake Bracciano.

The water is collected so as to observe the re-establishment times set by the natural hydrogeological cycle and is handled via **eight aqueduct systems**, both gravity and pressure operated.

With regard to the non-drinking resource, it is provided by another three sources of supply - the Traianee and Salone springs and the River Tiber - treated and introduced onto the specific Rome distribution network dedicated to sprinklers in parks and gardens.

**TABLE NO. 82 - THE SPRINGS UNDER PROTECTION IN ATO 2 – CENTRAL LAZIO**

sensitive area	location	surface areas (m <sup>2</sup> )
Peschiera springs	municipality of Cittaducale (Rieti, Lazio)	598,530
the Capore springs	municipality of Frasso and Casaprota (Rieti, Lazio)	586,600
Acqua Marcia spring	municipality of Agosta-Arsoli-Marano Equo (Rome)	3,519,600
Acquoria spring	municipality of Tivoli (Rome)	10,050
Acqua Felice – Pantano springs	municipality of Zagarolo (Rome)	441,280
Pertuso springs (*)	municipality of Trevi – Filettino (Lazio)	77,740
Doganella springs	municipality of Rocca Priora (Rome)	350,000
Acqua Vergine springs	municipality of Rome	500,000
Torre Angela wells	municipality of Rome	50,300
Finocchio wells	municipality of Rome	31,153

NB: The protection areas of the Vallepietra springs are being studied by the Regional Authority, the proposals for the protection areas of the former Casmez wells are being completed so as to be submitted for the approval of the Regional Authority while those for the Ceraso springs are being drawn up.

Further to the Regional Council Resolution No. 537 dated 2 November 2012, new protection areas have been identified for the springs in the collection area of the Colli Albani (Acqua Felice – Pantano Springs, Acqua Vergine Springs, Torre Angela Wells, Finocchio Wells). The new surface areas (extensions) are not quantifiable at the moment.

(\*) Under normal conditions, the Pertuso springs are used by Enel for the production of electricity, while the springs in the Municipality of Vallepietra and that of Ceraso contribute towards feeding the Simbrivio aqueduct network. In the event of seasonal drought, it is also necessary to draw from Pertuso, interrupting the generation of electricity. This procedure is disciplined by a decree issued by the Commissioner for the Simbrivio water shortage.

## Water quality

Each Group company proceeds with monitoring plans on the quality of the drinking water provided and the waste water returned to the environment after treatment. The analytical checks on water distributed to customers are of

fundamental importance due to the health repercussions which derive therefrom. The following tables No. 83 and 84 and the charts No. 38 and 39 provide a summary of the activities carried out in this sphere:

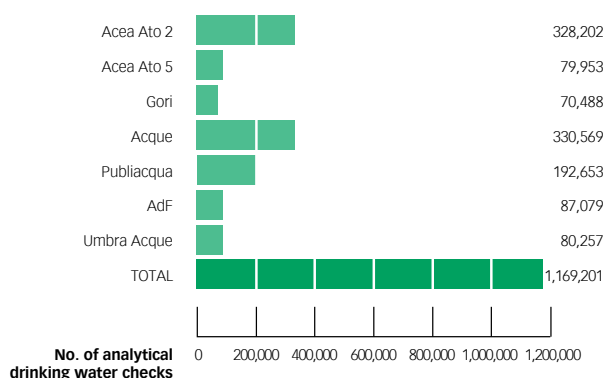
**TABLE NO. 83 – ANALYTICAL CHECKS ON DRINKING WATER: TOTALS AND BY COMPANY (2010-2012)**

company	no. of analytical controls		
	2010	2011	2012
Acea Ato 2	330,269	337,529	328,202
Acea Ato 5	74,309	94,327	79,953
Gori	82,801	82,193	70,488
Acque	228,485	254,297	330,569
Publiacqua	209,334	189,508	192,653
Acquedotto del Fiora	61,001	65,007	87,079
Umbra Acque	94,942	79,876	80,257
<b>total</b>	<b>1,081,141</b>	<b>1,102,737</b>	<b>1,169,201</b>

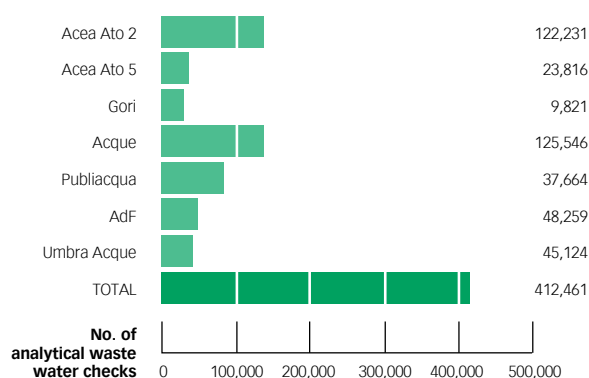
**TABLE NO. 84 – ANALYTICAL CHECKS ON WASTE WATER: TOTALS AND BY COMPANY (2010-2012)**

company	no. of analytical controls		
	2010	2011	2012
Acea Ato 2	98,150	95,527	122,231
Acea Ato 5	28,383	17,786	23,816
Gori	15,979	14,986	9,821
Acque	103,239	105,076	125,546
Publiacqua	33,497	34,405	37,664
Acquedotto del Fiora (*)	31,699	42,902	48,259
Umbra Acque	40,258	47,638	45,124
<b>total</b>	<b>351,205</b>	<b>358,320</b>	<b>412,461</b>

**CHART NO. 38 – ANALYTICAL CHECKS ON DRINKING WATER: TOTALS AND BY COMPANY (2012)**



**CHART NO. 39 – ANALYTICAL CHECKS ON WASTE WATER: TOTALS AND BY COMPANY (2012)**



Current legislation on this subject for water intended for human consumption (Italian Legislative Decree No. 31/2001 and subsequent amendments and additions) identifies a number of drinking water quality parameters (including arsenic and fluorine) and indicates the limit values. Specifically, the value established for arsenic is equal to 10 micrograms per litre, while for fluorine it is 1.5 milligrams per litre. These limits are exceeded in particular geographic areas in Italy **due to the volcanic nature of the ground. A number of areas in Lazio** are also affected by this phenomenon, served by Acea Ato 2 which straightaway **took steps**, as soon as it took over the running of the plants, **to bring the values back under the threshold** established. The company is therefore carrying out the work envisaged in the recovery plans according to a timescale agreed with the competent Authorities (also see *Customers and the community, Quality supplied in the water area*).

### Quality of the water distributed in Rome

The quality of the water distributed in Rome, as already mentioned, has always been very high. The **water in fact is very pure and has an excellent mineral level**, which makes it a genuine unicum in the water sphere not only at national level.

In order to maintain this asset intact, Acea pays particular attention to the execution of **accurate monitoring** and frequent **analytical controls**. In order to ensure maximum quality in the prevention activities, Acea avails itself of external laboratories, meticulously chosen, as well as the professional support of the subsidiary company **LaboratoRI**, accredited for the performance of chemical-physical, chemical-organic and microbiological daily analysis on samples taken from the entire aqueduct system (see tables No. 85-87).

**TABLE NO. 85 – ANALYTICAL TESTS CARRIED OUT OVERALL IN ATO 2 - CENTRAL LAZIO (2010-2012)**

type of water analysed	no. of analytical tests		
	2010	2011	2012
drinking water	305,258	313,804	309,751
waste water	98,150	94,557	117,440
surface water	35,387	36,413	36,828
<b>total</b>	<b>438,795</b>	<b>444,774</b>	<b>464,019</b>

NB: the figures refer to the analytical activities carried out by LaboratoRI

**TABLE NO. 86 - ANALYTICAL TESTS ON DRINKING WATER – HISTORIC NETWORK OF ROME (2010-2012)**

area of withdrawal	no. of withdrawal points	no. of samples			no. of analytical tests		
		2010	2011	2012	2010	2011	2012
collection	45	515	590	510	21,451	22,973	22,364
aqueduct and water pipelines	26	280	301	338	9,531	10,611	9,502
reservoirs/water centres	21	222	260	217	7,948	8,299	7,483
distribution networks	320	3,557	3,885	3,970	113,762	126,437	123,748
<b>total</b>	<b>412</b>	<b>4,574</b>	<b>5,036</b>	<b>5,035</b>	<b>152,692</b>	<b>168,320</b>	<b>163,097</b>

NB: the figures refer to the analytical activities carried out by LaboratoRI

**TABLE NO. 87 – AVERAGE CHEMICAL AND MICROBIOLOGICAL FEATURES OF THE WATER DISTRIBUTED IN ROME AND ITALIAN LEGISLATIVE DECREE NO. 31/01 (2012)**

parameters	unit of measurement	2012 average value	legal parameter (Italian Legislative Decree no. 31/01)
Turbidity	NTU	<0.5	without anomalous variations
Temperature	°C	12.8	not envisaged
Concentration of hydrogen ions	pH unit	7.45	>6.5 and < 9.5
Electrical conductivity	µS/cm at 20 °C	557	< 2,500
Chlorides	mg/l Cl	9.68	< 250
Sulphates	mg/l SO <sub>4</sub>	18.3	< 250
Calcium	mg/l Ca	96.4	not envisaged
Magnesium	mg/l Mg	18.9	not envisaged
Sodium	mg/l Na	7.96	< 200
Total water hardness	mg/l K	4.88	not envisaged
Water hardness	°F	31.8	(*)
Free residual chlorine	mg/L Cl <sub>2</sub>	0.15	(**)
Alkalinity	mg/L CaCO <sub>3</sub>	315	not envisaged
Fixed residual calculated	mg/l	399	***
Nitrates	mg/l NO <sub>3</sub>	4.24	< 50
Nitrites	mg/l NO <sub>2</sub>	<0.05	< 0.50
Ammonia	mg/l NH <sub>4</sub>	<0.10	< 0.50
Fluorides	mg/l F	0.20	< 1.50
Total organic carbon	mg/l C	0.43	without anomalous variations
Iron	µg/l Fe	5.30	< 200
Copper	mg/l Cu	0.002	< 1.0
Lead	µg/l Pb	0.26	< 10
Cadmium	µg/l Cd	<0.2	< 5.0
Chromium	µg/l Cr	<5.0	< 50
Nickel	µg/l Ni	<2.0	< 20
Manganese	µg/l Mn	0.43	< 50
Arsenic	µg/l As	1.34	< 10
Vanadium	µg/l V	6.67	< 140
Total trialomethanes	µg/l	2.01	< 30
Trichlorethylene	µg/L	0.14	< 10
Tetrachlorethylene	µg/L	0.13	< 10
1,2 - Dichloroethane	µg/L	<0.30	< 3.0
Benzene	µg/l	<0.10	< 1.0
Benzopyrene	µg/l	<0.003	< 0.010
Coliform bacteria at 37° C	MPN/100 ml	0	0
Escherichia coli	MPN/100 ml	0	0
Enterococcus	UFC/100 mL	0	0

(\*) recommended values: 15-50 °F - the lower limit is valid for water subject to softening or desalination treatment

(\*\*) recommended value 0.2 mg/L

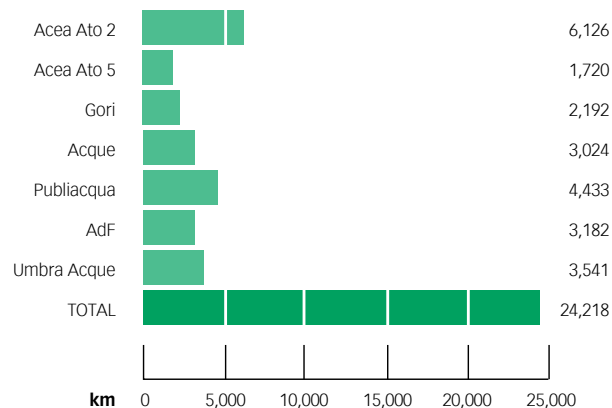
(\*\*\*) maximum value recommended: 1,500 mg/L

## The sewerage service and the treatment system

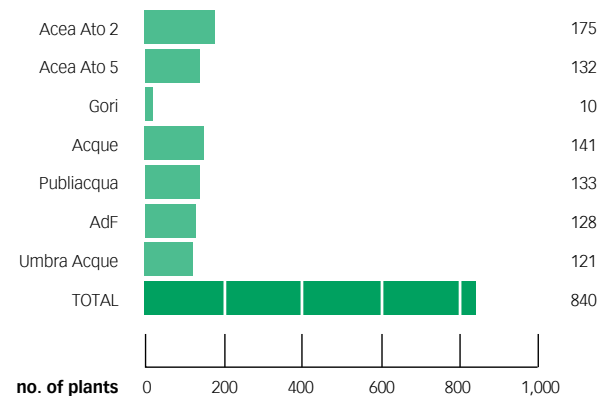
In addition to the management of the drinking water collection and distribution phases, the integrated water service includes the governance of the treatment system overseeing the last stage of the industrial cycle before the resource is returned to the environment.

The **sewerage network**, which collects the waste water for subsequent treatment, covers **more than 24,200 kilometres connecting 840 treatment plants**. In 2012, a total volume of **waste water** was treated equating to **about 852 million cubic metre** (see charts No. 40-42 and the *Environmental accounts*).

**CHART NO. 40 – SEWERAGE NETWORKS: TOTAL AND BY COMPANY (2012)**

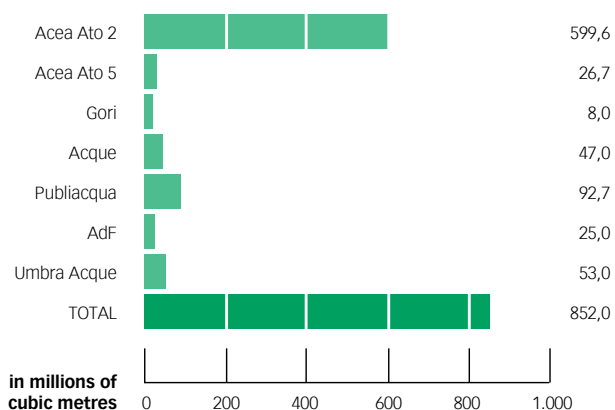


**CHART NO. 41 - TREATMENT PLANTS: TOTAL AND BY COMPANY (2012)**



NB: the Aque SpA plants are those provided for the 2011 Sustainability Report. The updated figure is not available at the time of publication.

**CHART NO. 42 – VOLUMES OF WASTE WATER TREATED IN TOTAL AND BY COMPANY (2012)**



The main treatment plants located in the “historic” area of Rome and Fiumicino treated around **522 million cubic metres** of waste water in 2012, involving a decrease of 13% when compared with last year<sup>102</sup>.

If one considers the minor treatment plants and those belonging to the municipalities acquired in ATO 2, a **total volume of more than 600 million cubic metres treated** is reached.

The “**treatment efficiency**” achieved in the plants has made it possible to maintain the values of the pollutant parameters in the outgoing treated water **within the limits envisaged by law** on average. A breakdown of the main parameters leaving the treatment plants is shown in table No. 88.

<sup>102</sup> The decrease mainly depends on the reduced rainfall recorded mainly in the first half of the year and also the effects of the re-calibration of the flow measurer at the Rome South plant at the start of the year.

**TABLE NO. 88 - PARAMETERS EXITING THE MAIN TREATMENT PLANTS MANAGED BY ACEA ATO 2 – MUNICIPALITY OF ROME (2012)**

parameter	Rome South treatment plant	Rome North treatment plant	Rome East treatment plant I Section	Rome East treatment plant II section	Ostia treatment plant	limits of concentration in surface water (Italian Legislative Decree No. 152/06)
<b>average values (mg/l)</b>						
BOD <sub>5</sub>	16	10	5	11	5	≤ 25
COD	72	29	54	83	27	≤ 125
TSS	22	17	12	29	9	≤ 35
Nitrogen (ammoniacal, nitric and nitrous)	10	11	8	14	11	-
Phosphorous	2	2	1	2	2	-
<b>absolute values (t)</b>						
COD	21,618	2,848		6,486	669	-
TSS	6,718	1,668		1,971	227	-

#### CRITICALITIES OF THE SEWERAGE AND TREATMENT SYSTEM IN THE MUNICIPALITIES ACQUIRED IN ATO 2

Acea Ato 2 has acquired the integrated water service in the Municipalities of ATO 2 - Central Lazio Rome in observance of the legislation laid down and the Management Agreement. At the time of conferral, various sewage mains and treatment plants were present in the area, lacking the necessary technical requirements for observance of the legislation. Acea Ato 2 in any event took steps to make the acquisitions in accordance with the Galli Law, and launched considerable investments plans to adapt the plants to the reference legislation, as per a programme of measures approved by the Area Authority. However, on several occasions it occurred that in this contingent management launch phase, and before having been able to carry out at least part of the planned action, situations of non-compliance were contested, inherited from the previous operators; or the competent authorities modified the running requirements for which the plants had originally been created. This led to negative effects on the operations of the company and considerable economic damage due to the rise in management and maintenance costs. To defend the company, affected by criminal charges (and thus its executives and directors), the acquisitions of the services in Municipalities where situations of non-compliance have been ascertained, have been suspended.

#### Management of treatment sludge

Via the subsidiary company **Aquaser**, Acea operates in the sector of services complementary to the **integrated water cycle, in particular the transportation, recovery and disposal of the sludge produced by treatment**. The correct handling of these waste materials, considerable in quantity and difficult to treat due to the instability of the same, is a traditional problem for operators in the sector. Aquaser has chosen to make it a green business opportunity, on a consistent basis with the principles of sustainability which guide corporate decisions. Therefore, it focused on the **re-use of the treatment sludge** in the agricultural sector **under the form of mixed composted soil conditioner, in replacement of fertilizers**.

In 2012, the transport and recovery/disposal service handled a total of around 200,000 tons of waste, of

**which 180,000 tons relating to treatment sludge.**

The sludge, originating from the Group water companies, had the following final uses:

- **5% spreading** in agriculture;
- **83% for composting**.

The remaining 12% was sent for disposal since it is not recoverable.

The two authorised plants in which the **composting** activities are carried out are managed by Acea Group companies: the first by Solemme SpA in Monterotondo Marittimo (Grosseto), and the other by Kyklos Srl in Aprilia (Latina).

The location of the plants, near to the water companies served, makes it possible to optimise the sludge management service, thereby containing the operating costs.

The **Kyklos** plant, with a **current potential of 66,000**

**tons a year** of compostable waste, **may be able to treat 120,000 tons a year** once the new anaerobic digestion section being authorised has been built. Once fully up and running, the innovation will also permit the recovery of electricity and thermal energy thanks to the exploitation under combustion of the biogas produced during anaerobic digestion.

The **Solemme** plant currently has a **potential of 26,100 tons a year** of compostable waste, also including non-industrial treatment sludge, farm sludge, mowings and prunings. By means of the authorisation obtained in December 2012 for the **construction of a new anaerobic digestion section**, a treatment capacity of **up to 70,000 tons a year** will be achieved.

For precise figures on compost produced see the *Environmental accounts*.

At the end of 2011, Aquaser was identified by the Italian Ministry for the Environment and Protection of the Territory and the Sea and the Mexican Ministry for the Environment, within the sphere of an inter-institutional agreement, **as the party to be entrusted with the realisation of a pilot plant in the City of Mexico for the treatment of organic waste. The plant will be able to produce bio-fertilizers for agricultural use, renewable energy and water for industrial use all at the same time.** Planning activities were launched in 2012. The plant should be completed in 2013 and duly come onto stream during 2014 (see related box for details).

#### **AQUASER: A PILOT PROJECT INVOLVING INTERNATIONAL CO-OPERATION, PROCESS INNOVATION AND SUSTAINABLE DEVELOPMENT**

Aquaser, the Acea Group company active in the area of recovery and development of biological sludge deriving from the integrated water service, recently launched an innovative composting technology, currently being patented, which starting off with organic waste permits the production of **high-quality bio-fertilizers, renewable energy and water all at the same time.**

This technology will first be applied in a **pilot plant** which is about to be built in the **City of Mexico**, within the sphere of the *International Co-operation Agreement* in force between the Italian Ministry for the Environment and the corresponding Ministry of the City of Mexico, aimed at combating climate change.

The **Chapultepec Woods**, the largest city park in Latin America which covers **685 hectares** and is **visited by more than 15 million people a year**, is the site chosen by the Mexican Authorities for housing the composting plant. Green residues produced by park maintenance activities and organic waste originating from cultural and accommodation activities in the park will be treated here.

The **highly innovative aspect of the initiative** is to be found in the **process technology** which will make it possible to achieve several benefits, including the production of a high-quality soil conditioner, minor consumption of fossil resources, the reduction in CO<sub>2</sub> emissions and finally the recovery of water for industrial use. The plant should be completed by the end of 2013.

# Use of energy and water

## THE BOUNDARIES

The boundaries of this section include Acea SpA, Acea Reti e Servizi Energetici, Acea Distribuzione, LaboratoRI, Acea Produzione and A.R.I.A. with the two waste to energy plants.

With regard to the water sector, Acea Ato 2, Acea Ato 5, Acque, Gori, Acquedotto del Fiora, Publicacqua and Umbra Acque are included.

The main objectives of the Acea Group include the **containment of the use of precious resources such as water and energy** with the expected result of generating not only positive environmental and social

effects, but also positive economic effects, thereby representing an effective example of “sustainable action”.

## Energy consumption

Tables 89, 91 illustrate the **direct energy consumption** of the Group, in other words that which involves the use of primary sources **for the functioning of the production system, including the consumption for generation** of electricity and heat and the **fuels used for the vehicle fleet**.

Table No. 90 indicates the **indirect energy consumption**, in other words the **electricity used in the Group**, including the losses which take place on the distribution networks, attributable to the transformation and transport phases, fraud and erroneous metering.

**TABLE NO. 89 – THE ACEA GROUP’S DIRECT ENERGY CONSUMPTION (2010-2012)**

TJ (GWh)	2010	2011	2012
energy for electricity generation (a)	6,399.3 (1.776.6)	5,337.5 (1,482.6)	6,567.5 (1.824.3)
energy for the vehicle fleet (b)	59.3 (16.5)	40.4 (11.2)	56.5 (15.7)
energy for heating (c)	20.1 (5.6)	24.5 (6.8)	24.6 (6.8)
total net electricity produced and sold (c)	2,763.4 (767.6)	1,815.1 (504.19)	2,176.5 (604.59)
net thermal energy sold (e)	227.2 (63.1)	245.5 (68.2)	274.8 (76.3)
<b>total direct energy consumption EN3 = (a+b+c)-(d+e)</b>	<b>3,488.1 (968.0)</b>	<b>3,341.8 (928.2)</b>	<b>4,197.3 (1,165.9)</b>

NB: the figures for the three-year period include those of A.R.I.A., Acea Reti e Servizi Energetici, Acea Produzione.

Considering that 1 TJ is approximately 23.9 toe, the **GRI-G3.1 EN3 indicator** = (4,197.3 x 23.9) = **100,315 toe**



**TABLE NO. 90 - THE ACEA GROUP'S INDIRECT ENERGY CONSUMPTION (2010-2012)**

TJ (GWh)	2010	2011	2012
electricity losses on the distribution and transportation networks	1,491.1 (414.2)	1,692.4 (470.1)	1,377.4 (382.6)
losses and internal consumption for electricity production	198.4 (55.1)	144.7 (40.2)	169.9 (47.2)
heat losses on the district heating network	77.8 (21.6)	59.0 (16.4)	41.8 (11.6)
consumption for public lighting	567.9 (157.7)	582.0 (161.7)	583.9 (162.2)
consumption for drinking and non-drinking water distribution (*)	1,673.3 (464.8)	1,736.3 (482.3)	1,765.1 (490.3)
consumption for waste water treatment (*)	1,086.84 (301.9)	1,066.7 (296.3)	1,069 (297.0)
energy consumption for the offices	37.2 (10.3)	37.4 (10.4)	37.4 (10.4)
<b>total indirect energy consumption</b>	<b>5,132.5 (1,425.6)</b>	<b>5,318.46 (1,477.4)</b>	<b>5,044.64 (1,401.3)</b>

NB: the figures for the three-year period include the consumption of A.R.I.A., Acea Produzione, A.R.S.E., Acea SpA and the water companies included in the boundaries.

(\*) consumption for distribution and treatment includes all the water companies within the reporting boundaries.

**TABLE NO. 91 - ACEA VEHICLE FLEET CONSUMPTION (2010- 2012)**

vehicle fleet consumption	2010	2011	2012
<b>petrol</b>			
l	980,754.41	639,227.8	831,595.2
kg	720,854	469,832	611,222
TJ	31.7	20.7	26.9
<b>diesel (gas oil)</b>			
l	788,809.71	566,066.1	848,330.4
kg	658,656	472,665	708,356
TJ	27.6	19.8	29.7

NB: the scope of the consumption for the vehicle fleet up until 2011 includes: Acea SpA, Acea Distribuzione, Acea Reti e Servizi Energetici, LaboratoRI, Acea Produzione, Acea Energia, Acea Ato 2 and Marco Polo. As from 2012 it also includes Acea Ato 5.

## Water consumption

Group water consumption concerns both the industrial processes and civil uses, as analysed in table No. 92. During 2012, there was a sharp reduction in consumption for the cooling of the Tor di Valle plant, caused by the low levels of production reported at this site. What is more, this is water taken from the outflow channel of the

adjacent Rome South treatment plant which has made it possible to achieve an advantageous synergy between the two plants.

For the other **types of consumption**, Acea mainly uses aqueduct water.

**TABLE NO. 92 - ACEA GROUP WATER CONSUMPTION (2010-2012)**

Mm <sup>3</sup>	2010	2011	2012
industrial processes: district heating and others for thermoelectric generation (*) (source: aqueduct, wells)	0.14	0.15	0.14
non-industrial/sanitary use (source: aqueduct)	1.15	1.26	1.90
cooling of thermoelectric plants (source: outflow from rome south treatment plant)	34.70	6.69	0.80
<b>total water consumption</b>	<b>35.99</b>	<b>8.10</b>	<b>2.84</b>

(\*) Includes: the process water used care of the Tor di Valle thermoelectric plant, and the water used care of the A.R.I.A. waste to energy plants, mainly deriving from the aqueduct and only from wells to a minor extent.

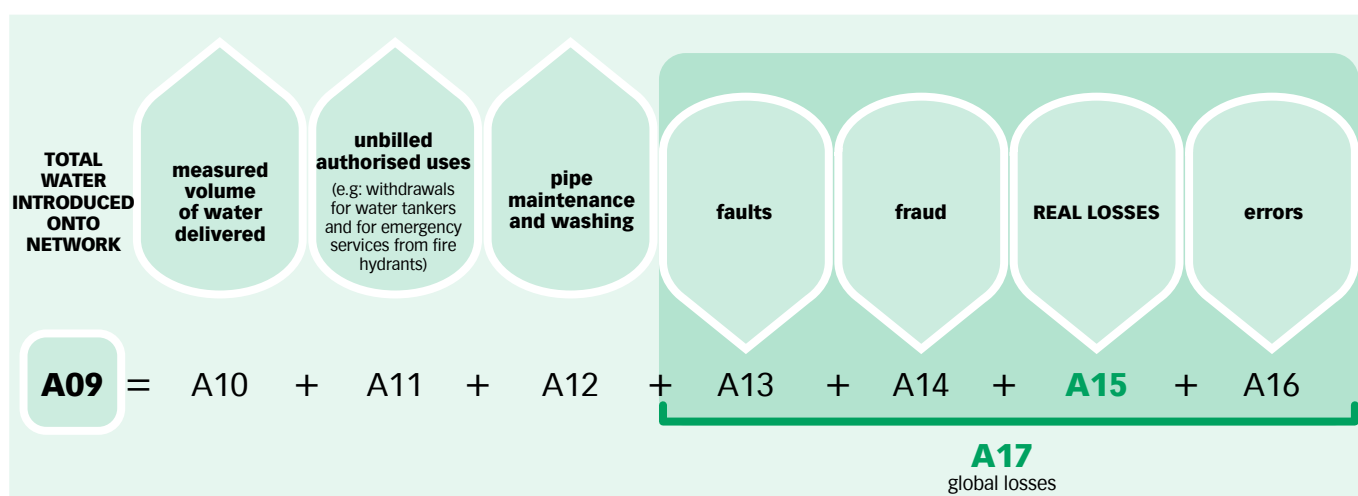
### Water losses

The water losses which are detected in the aqueducts and distribution networks represent a negative aspect with significant consequences from an economic standpoint. In order to contain them at the lowest levels possible, the Group companies spend considerable amounts, as witnessed by **Acquedotto del Fiora** which has developed numerous loss detection campaigns obtaining important results in the Municipalities of Follonica and Piancastagnaio where savings of around 0.45 Mm<sup>3</sup> of water have been reported.

In order to assess the losses on the water networks in a comparable manner, the model indicated in **Italian Ministerial Decree No. 99/97** is adopted (see chart No. 43).

The **real losses**<sup>104</sup>, with reference to the historic network of Rome and Fiumicino, amounted in 2012 to **around 26% of the total introduced into the network**. With regard to the other water distribution networks managed by the Group companies, the **satisfactory performances of Acque (Pisa) are mentioned**, where the losses, equal to 22% of that introduced onto the network, have improved with respect to past years. See the *Environmental accounts* for further details on the individual water companies.

**CHART NO. 43 - REAL WATER LOSSES, PARAMETER A15 (ITALIAN MINISTERIAL DECREE NO. 99/97)**



<sup>104</sup> The real losses, as per Italian Ministerial Decree No. 99/97 are indicated by the parameter A15; they only quantify the losses due to defects in the plants (e.g. leaks in the joints between piping, holes and lacerations in the pipes, structural subsidence of concrete or metal structures). To obtain the figure, it is necessary to subtract the water sold (A10) and all the types of failure to deliver to the end customer: emergency consumption (A11), washing (A12), faults (A13), fraud (A14), metering errors (A16), from total water introduced onto the network (A09).

# Emissions, mobility and waste

## THE BOUNDARIES

The boundaries of this section include Acea SpA, Acea Reti e Servizi Energetici, Acea Distribuzione, LaboratoRI, Acea Produzione and A.R.I.A. with the two waste to energy plants. With regard to the water sector, Acea Ato 2, Acea Ato 5, Acque, Gori, Acquedotto del Fiora, Publicacqua and Umbra Acque are included.

## Emissions into the atmosphere

The monitoring of the emissions into the atmosphere produced by thermoelectric plants and waste to energy plants is carried out, where possible, using continuous analyzers periodically checked by internal staff and by qualified outside laboratories.

Within the context of the environmental Management Systems in force care of all the Group plants which produce atmospheric emissions, annual containment targets are normally set for emissions of micro-pollutants (CO, powders, NO<sub>x</sub> and SO<sub>2</sub>) and carbon dioxide (CO<sub>2</sub>).

The carbon footprint of the thermoelectric generation

process at the two Tor di Valle and Montemartini plants fell considerably as from 2012 in absolute terms - from around 123,000 tons of CO<sub>2</sub> in 2010 to roughly 25,400 tons in 2012 (see table No. 93) - even if this is essentially due to a proportionate reduction in production volumes. Both thermoelectric plants are subject to the **Emission Trading Scheme** and therefore have the restriction of not emitting quantities of CO<sub>2</sub> greater than the allowances assigned to them by the **National Allocation Plan**, at the risk of a deterioration in the profile of the costs due to the need to buy quotas in excess on the market (see table No. 93).

**TABLE NO. 93 – CO<sub>2</sub> EMISSION ALLOWANCES AS PER THE NAP AND EFFECTIVE EMISSIONS BY PLANT (2010-2012)**

plants	2010		2011		2012	
	assigned by the NAP	effective	assigned by the NAP	effective	assigned by the NAP	effective
Tor di Valle	235,788	87,989	235,788	26,089	235,788	23,377
Montemartini	1,827	2,902	1,218	4,762	609	1,988

With regard to emissions of **CO**, **SO<sub>2</sub>** and **NO<sub>x</sub>** micropollutants, the same comments made in relation to emissions of CO<sub>2</sub> are valid: a sharp decrease was seen with respect to the 2010 values, due to the corresponding reduction in production levels.

With regard to atmospheric emissions produced by the waste to energy plant at San Vittore del Lazio, the levels registered by means of on-going monitoring, compared with the reference limits, are shown in table No. 94.

**TABLE NO. 94 - ATMOSPHERIC EMISSIONS PRODUCED BY THE SAN VITTORE DEL LAZIO WASTE-TO-ENERGY PLANT (2010-2012)**

**emissions into the atmosphere (main pollutants)**

pollutant	reference parameter It. Leg. Decree No. 133/2005	unit of measurement	2010	2011	2012		total
					line 2	line 3	
HCl	10	mg/Nm <sup>3</sup>	2.45	1.88	0.16	0.22	<b>0.38</b>
NO <sub>x</sub>	200		101.49	148.17	23.67	25.58	<b>49.25</b>
SO <sub>2</sub>	50		6.79	4.18	0.01	0.0017	<b>0.0117</b>
total powders	10		1.06	1.41	0.0025	0.0042	<b>0.0067</b>
IPA (polycyclic aromatic hydrocarbons)	0.01		0.00013	n.a.	0.000012	0.000012	<b>0.000024</b>
dioxins and furans (PCDD +PCDF)	0.1	ng/Nm <sup>3</sup>	0.05	n.a.	0.0185	0.02	<b>0.0385</b>
heavy metals (Sb, As, Pb, Cr, Co, Cu, Mn, Ni, V)	0.5	mg/Nm <sup>3</sup>	0.00967	n.a.	0.0025	0.00375	<b>0.00625</b>

N.B.:Line 1 is not present in the table, because as from March 2011 it was shutdown for revamping work.

CO<sub>2</sub> emissions of the San Vittore del Lazio plant came to around 99,700 tons and are mainly due to the combustion of the non-biodegradable component of the WDF treated (around 50% of the total).

In conclusion, the monitoring carried out on all the plants at risk demonstrated **the absence** of appreciable quantities **of emissions of substances responsible for reducing the ozone layer.**

Table No. 95 shows the total emissions of the Group, including those from vehicles and air-conditioning.

**TABLE NO. 95 - TOTAL ACEA GROUP EMISSIONS (2010-2012)**

(t)	2010	2011	2012
<b>emissions</b>			
CO <sub>2</sub>	122,940	35,308	132,123
CO	67.34	34.74	49.62
NO <sub>x</sub>	226.27	100.59	104.66
SO <sub>2</sub>	6.70	0.71	0.04

With regard to the waste to energy plant for treating pulper (Terni), a memorandum of intent was entered into with the bodies which control the area, which envisages a pollutant monitoring campaign that will go beyond the current regulatory fulfilments in force.

A.R.I.A., which manages the waste to energy plants, has taken steps to monitor the quality of the air at the points of greatest fallout of the pollutants emitted by its plants, thereby contributing to the effort to improve the general ecological quality. It also carried out the usual monitoring of the state of the quality of the soil and groundwater surrounding the San Vittore del Lazio plant and carried out studies on bioaccumulation of heavy metal in the lichen present in the soil surrounding the plant. The campaigns carried out so far have provided results in line with the limits envisaged by current legislation, consistent with the Integrated Pollution Prevention and Control Authorisation (IPPC), on the basis of which the plant operates.

**Group vehicle fleet**

For several years the Group has been involved in the reduction of atmospheric emissions; this also led to specific attention to the renewal of the company vehicle fleet, which in 2012 numbered 2,500 vehicles in circulation. Again in 2012, as in 2011, a lowering of the average age of the vehicles was seen thanks to the acceleration of the natural process for replacing obsolete vehicles with latest generation models. Furthermore, **42 electric vehicles** were introduced in 2012, purchased in 2011, which will be **joined by another 40**, the process for the purchase of which has been launched.

## Acea Group waste

The satisfactory handling of the waste cycle must permit the maximum recovery of material which can be re-used and, secondly, the maximum energy recovery. Before making any reasoning, it is also necessary to pose the primary objective of the reduction of the quantities produced, because minor quantities of waste in any production activities translate directly into an economic recovery, social wellbeing and a marked environmental improvement, in other words a clear shift towards sustainability, which represents a genuine challenge to be met.

As far as it is possible, Acea seeks to apply these concepts to its specific production set-up, handling its waste in accordance with cost-effective criteria and in complete respect of the environment.

Table No. 96 indicates the **total quantities of waste produced**, while **segmentation of the same as per the various industrial processes is illustrated further on**. For analysis and greater details, please refer to the *Environmental accounts*.

**TABLE NO. 96 - TOTAL WASTE PRODUCED BY THE ACEA GROUP (2012)**

total waste produced	quantity (t)
<b>all the activities excluding waste water treatment</b>	
hazardous	40,177.2
non-hazardous	96,679.0
<b>waste water treatment activities</b>	
sludge	280,878.0
sand and sediment	16,167.0

In the **energy area**<sup>106</sup>, a total of **1,982 tons of waste** was produced – 1,316 tons of non-hazardous waste and around 666 tons of hazardous waste (see chart No. 44), without any particularly significant changes with respect to last year. The figures concern the companies **Acea Distribuzione** and **Acea Produzione**.

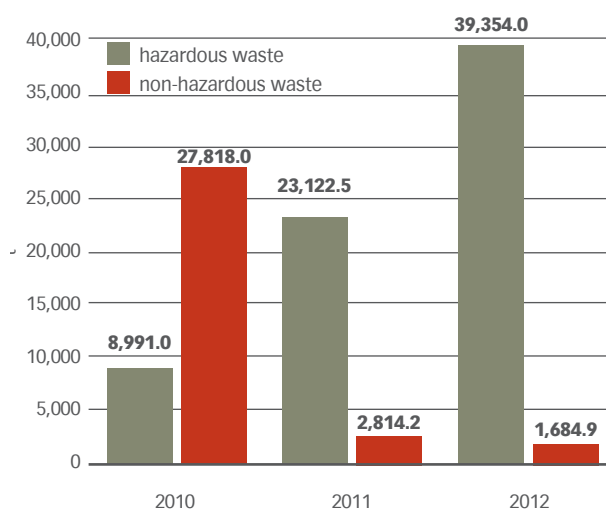
**CHART NO. 44 - GROUP WASTE PRODUCTION FOR THE ENERGY AREA (2010-2012)**



The main types of waste associated with the **waste to energy** activities are represented by **ash and slag**, which in 2012 came in total to **41,039 tons**, of which **39,354 tons** classified as “hazardous waste”.

The considerable increase in the quantities with respect to 2011 is due to the achievement of the full operations of the San Vittore del Lazio plant, as from July 2012, with the bringing onto stream of the two new lines (see Chart No. 45).

**CHART NO. 45- PRODUCTION OF WASTE FROM WASTE-TO-ENERGY PROCESS (2010-2012)**



<sup>106</sup> Total energy sector waste also includes 50% of that produced by Acea SpA, amounting to around 15 tons, of which 2 tons classified as “hazardous waste”.

With regard to the waste produced by Kyklos and Solemme, in the waste management area, see the *Environmental accounts*.

In the main Group companies operating in the **water sector** (see *Reference boundaries*)<sup>107</sup>, **78,628 tons** of waste was produced, **mainly** represented by **inert material**, equal to around **156 tons** of hazardous waste.

**Process waste**, in other words deriving **from** waste water **treatment activities has been represented separately** so as not to invalidate the interpretation of the figure for own production. This is mainly **sludge, whose production came to around 280,878 tons** (48.7% produced by Acea Ato 2 alone), and **sand/sediment which totalled around 16,167 tons** (57.7% of which produced by Acea Ato 2). See the *Environmental accounts* for further details.

The **waste recovery** activities are growing constantly, with certain Group companies which have reached **significant percentages, such as Acea Distribuzione, which in 2012** recovered around 873 tons of waste, **62% of the total** produced (amounting to around 1,415 tons) and **Acea Ato 2** which **recovered 91%** (980 tons out of around 1,074 tons).

**Acea Produzione** recovers around **6.4%** of waste produced (35 tons out of around 551 tons) with a partial **60% recovery of that classified as hazardous**.

**CHART NO. 46- GROUP WASTE PRODUCTION FOR THE WATER AREA (2010-2012)**



A.R.I.A., in conclusion, recovers around 30% of its waste. As from January 2013, the Acea Group implemented internal procedures for improvement of the separate collection of waste, in order to encourage the re-use of waste materials with the involvement of specialised outside firms.

<sup>107</sup> The total of water area waste includes, in addition to the water companies Acea Ato 2, Acea Ato 5, Gori, Acque, Publiacqua, Acquedotto del Fiora and Umbra Acque, also 50% of the waste produced by Acea SpA (equal to around 15 tons, of which 2 t classified as "hazardous waste").

## Research

Research and development activities are carried out by the Group operating companies, in the various business areas. In fact, initiatives aimed at experimenting and implementing technological innovation are furthered, often in synergy with research bodies and scientific-academic institutions (also see *Socio-economic relationships with the stakeholders, Institutions and the Company*). Some of the main projects being developed are indicated below.

- **Aquaser:**

- project for the creation in the city of Mexico of a composting pilot plant using innovative technology. For details, see the box in the section on *Management of treatment sludge*.

- **Acea Produzione:**

- study into the type of conditioning of the carrier fluid of the district heating network in Rome for the prevention of corrosion in the pipes and the prevention of potential losses of liquid into the ground.
- construction of a district cooling pilot plant for a residential buildings located in the Rome district of Mezzocammino.

- **Acea Distribuzione:**

- the **Smart-network Management System** project: technological evolution in the management of the electricity distribution network with the aim of improving the handling of the medium and low voltage electricity distribution networks for the city of Rome.
- the **Smart Grid** pilot project, for the development of innovative solutions for the integration of the distributed generation and the improvement of the service continuity. The project will be completed in the first half of 2013;
- **ORBT** project - *Low Voltage Network Optimisation* – for the development of a dedicated application capable of carrying out in-depth analysis into the LV network, identifying critical areas in relation to primary restrictions, assessing an optimised network set up by means of specific algorithms so as to reduce electricity losses, due to the joules effect. The first stage of the project was achieved in 2012;
- the **DigSilent PowerFactory** project was launched in 2011 for the optimisation of the running of the Medium Voltage networks for the purpose of: reducing the losses of electricity as a result of

the joules effect, improving the voltage profiles on electricity lines and maximising the overall reliability of the system, by means of an application on the dedicated calculation software. The first stage of the project was concluded by means of achieving these objectives. In **2012**, a **second implementation stage** of the application was launched for the definition of automatic calculation procedures functional for permitting the consolidation of the objectives already achieved also in the presence of the Distributed Generation connected to the network. These activities will also continue in 2013.

- **Acea Ato 2:**

- in collaboration with **LaboratoRI**: activities for the study of the distribution networks and **loss detection** on the basis of the “division into districts” approach envisaged by Italian Ministerial Decree No. 99/97, which was mainly carried out in the municipalities of Monterotondo, Riano, Fiano Romano, Cerveteri, Subiaco, Formello, Mentana and Velletri.
- in collaboration with **LaboratoRI**: experimentation of systems for the on-going and on-line monitoring of fluorides and arsenic, sector-related microbiological analysis with the collaboration of the I.S.S. Study of treatment systems for the removal of natural pollutants, such as arsenic.

- **Umbra Acque:**

- **Life Palm Project** (Pump and leakage management), whose purpose is to create an instrument which makes it possible to achieve and maintain the “minimum” loss objectives, at the same time optimising the pumping system to limit the energy and operating costs. The conclusion of the project phase relating to loss detection permitted a recovery of around 13 l/s;
  - studies and trial relating to the **AERE Project** (increase the energy efficiency in the waste water treatment plants), developed in collaboration with the *Ricerca di Ingegneria Sanitaria Ambientale* Unit at Florence University and other Italian companies of primary importance in the management of Integrated Water Systems, with the conclusion of the second analytical control campaign on the functioning of the oxidative system of the Ponte Valleceppi treatment plant (90,000 equivalent inhabitants).
- **Acquedotto del Fiora:**
  - loss detection campaigns continued with recoveries

of the water resource in the Municipalities of Follonica and Piancastagnaio where savings for around 0.45 Mm<sup>3</sup> in network introduction were reported. Projects are currently being studied to resolve anomalies on the energy consumption of the plants which have a heavy use of power under management in certain municipalities: Piancastagnaio, Santa Fiora, Orbetello, Castiglione della Pescaia and Grosseto.

• **Laboratori:**

- environmental monitoring for Solemme (Aquaser Group);
- functional checking of drinking water treatment

plants for Acea Ato 5;

- studies into the instability of the water and rainfall phenomenon in the Tufano – Acea Ato 5 water system;
- Development of methods for the assessment of the eco-toxicity features of the waste - slag and experimental application of the method on samples of ash and slag.

As has occurred for several years now, numerous research activities in the environmental water sphere are carried out jointly by **Laboratori** and **Acea Ato 2** (see tables No. 97-100).

**TABLE NO. 97 - MAIN RESEARCH ACTIVITIES ON DRINKING WATER QUALITY AND SOURCES**

<b>project title (year)</b>	<b>description</b>
<b>Protection areas (2012)</b>	Technical proposals were drafted for the protection areas of the well fields of Pescarella and Laurentino. Numeric simulations were carried out for Doganella preparatory to the emission of the protection areas.
<b>Removal of contaminants from water intended for human consumption (2010-2012)</b>	Activities continued for the definition of suitable treatment processes for the <b>removal of contaminants</b> (arsenic, vanadium, fluorides and manganese) so as to align the quality of certain water collected in key areas with the standards envisaged by Italian Legislative Decree No. 31/2001.
<b>Experimentation on new filtering materials columns (2012)</b>	Pilot experimentation was carried out on filtering columns to test a new filtering material for the <b>removal of arsenic</b> from drinking water. The new materials made up of iron hydroxides and lanthanum oxides has been subject to comparative test with the material which is used most commonly in the area managed by Acea Ato 2, for the purpose of checking the specific absorption capacity under various operating conditions.
<b>Development of an on-going monitoring prototype for recording the mineralisation parameters of water intended for human consumption (2009-2012)</b>	Validation of the prototype systems for on-going monitoring, validation and display of certain mineralisation parameters of the water distributed for drinking use in the city of Rome in 2011, were concluded; in 2012, the model for the transmission and display of data by means of display panels was defined.
<b>Experimentation of on-going fluoride and arsenic monitoring systems on drinking water plants (2010-2012)</b>	Validation of an on-line system for establishing the concentration of fluorides and arsenic. The possibility of implementing a network for the validation and remote display of the concentrations of the two natural pollutants exiting the drinking water treatment plants is envisaged.
<b>Optimisation, checks on the functioning of the drinking water treatment processes in the plants of the South, West and North catchment areas of ATO 2 (2011-2012)</b>	Activities for the functional checking of the drinking water treatment plants, aimed at checking the performances of the various treatment stages and optimisation of the processes. During 2012, these activities were carried out in 19 plants already installed in the last few years, following test and inspection.



**TABLE NO. 98 - MAIN RESEARCH ACTIVITIES ON TREATMENT PLANTS**

<b>project title (year)</b>	<b>description</b>
<b>Application of CLARIUS software for the management of the waste water treatment plants (2009-2012)</b>	The project envisages the application of the Clarius software as an instrument for a systematic and systemic gathering and handling of data on the treatment plants. In the period 2009-2011, it was applied to the large Rome plants; during 2012, activities were carried out for the implementation for the small and medium-sized plants of Acea Ato 2.
<b>Monitoring of hydrogen sulphide (H<sub>2</sub>S) at the waste water treatment plants (Rome South, East, North, Ostia, Co.BI.S.) (2007-2012)</b>	The study into the spatial and temporal distribution of the odorous impacts in the areas within and outside the main treatment plants continued. Once again during 2012, ordinary, extraordinary and night-time monitoring campaigns were carried out, based on the research for hydrogen sulphide (air quality odour indicator).
<b>Safety Project: chemical and biological monitoring of gaseous substances in waste treatment plants (Rome South, East, North, Ostia, CoBIS and 15 minor plants) (2007-2012)</b>	During 2012, the project envisaged the updating of the biological and chemical DVR (risk assessment documents) for the large treatment plants and for 15 minor plants (5 of these vary each year). The review of the documents was implemented by means of monitoring campaigns aimed at determining the concentrations and the loads of certain chemical and microbiological agents.
<b>Smells: valuation of preliminary experimentation by means of on-going monitoring using the "electronic nose" (2012)</b>	In relation to the evolution of current regional, national and international legislation which disciplines olfactory impacts, a preliminary valuation was carried out on the technical - functional features of the "electronic noses" present on the market in view of their possible use in the areas affected by the company's treatment plants.

**TABLE NO. 99 - MAIN RESEARCH ACTIVITIES ON CATCHMENT AREAS**

<b>project title (year)</b>	<b>description</b>
<b>Updating of aqueduct models (2012)</b>	The aqueduct water balances, also used for out-of-service simulations and drawn up using numeric models, have been updated by introducing the works (by-passes, new line reservoirs, pressure control valves, and other) introduced in the last decade together with the new branches with the measures carried out on Simbrivio, the Peschiera Destro, Acqua Marcia – VIII Sifone – Mola Cavona, etc. therefore updating them to the current plant engineering situation.
<b>Support for Water Availability Supervision (2009-2012)</b>	The project, launched in 2009, developed the formulations and proposed the contents and the format for a periodic report which, via the weather monitoring network, estimates the refilling of the aquifers for the area subtended by the collection and treatment plants. This project also includes the periodic (monthly) flow measurements carried out on the Peschiera and Capore springs.
<b>Peschiera Springs: hydrogeological study for a long by-pass (2011-2012)</b>	The study, launched in 2011, by means of the examination of specific scenarios also created using numeric models, demonstrated in 2012 the possibility of creating an initial stretch of aqueduct which interconnects with the existing stretch within the 10km of distance from the springs using the water not collected.
<b>Activities for the organisation of the water supply of the North catchment area (2012); West catchment area (2011-2012)</b>	The supply sources have been investigated in relation to the networks for reconstructing the user catchment areas, assessing the main criticalities existing and drawing up a list of the types of measures by individual municipality in the catchment area with the related priorities.
<b>Development of the calcium-carbon balance in the water of the Peschiera-Capore system (2012)</b>	During 2012, a study was carried out into the calcium-carbon balances in the water of the Peschiera-Capore system so as to analyse the instability features of the water in relation to the potential outside imbalances.
<b>Rivers Tiber and Aniene: quality, on-line chemical physical monitoring network and ecotoxicology implementation status (2007-2012)</b>	Once again in 2012, the study continued into the temporal evolution of the quality features of the rivers Tiber and Aniene, via accurate samples taken for the purpose of annual classification pursuant to Italian Legislative Decree No. 152/06 and analysis of the chemical-physical, biological and hydraulic data produced by the on-going monitoring network, made up of 4 control units and a bio-monitoring system for the observation of the trend in the total toxicity index.

**TABLE NO. 100 - MAIN RESEARCH ACTIVITIES ON SEWERAGE NETWORKS AND TREATMENT SLUDGE**

<b>project title (year)</b>	<b>description</b>
<b>Treatment sludge features: compatibility with energy recovery systems and analysis of the criticalities (2011-2012)</b>	An analytical study has been completed on the presence, removal and distribution of heavy metals in the sections of the non-industrial waste water treatment plants. The experimentation has specifically evaluated the accumulation of metals in sludge, to deepen the compatibility with energy recovery systems.
<b>Urban Drainage Model for the Rome North sewerage basin (2004-2012)</b>	Up-dating of the urban drainage model for the Rome North sewerage basin continued. The mathematical model is able to simulate the functioning of the system under various conditions and is useful for assessing: the response of the system in relation to significant historic rain fall and the frequency of the functioning of the flood drains with respect to historic series. Specifically, during 2012 analysis was carried out on scenarios representative of the most significant rain events during the year and a detailed study into a number of key points, along with quali-quantitative monitoring campaigns in dry and in rainy periods.
<b>Inflow/Run-off model for the entire Sewerage Basin, Rome East, Rome South, CoBIS and Ostia (2005-2012)</b>	The aim of the project is to reconstruct the physical characteristics of the waste water and rain water drainage system, relating to the treatment plant basins in question, so as to create a mathematical model capable of simulating the functioning of the urban drainage system under various conditions. During 2012, work continued for each of the basins identified, involving the up-dating of the model, the collation and processing of data, and the definition of the sewer basins. In detail, scenarios representative of the most significant rain events during the year were analysed for the Rome South and CoBIS sewage catchment areas. The Model for the Ostia catchment area was launched in 2009; in 2012, surveys were carried out on the 17 sewage raising constructions.

# Index of charts and tables

## Charts

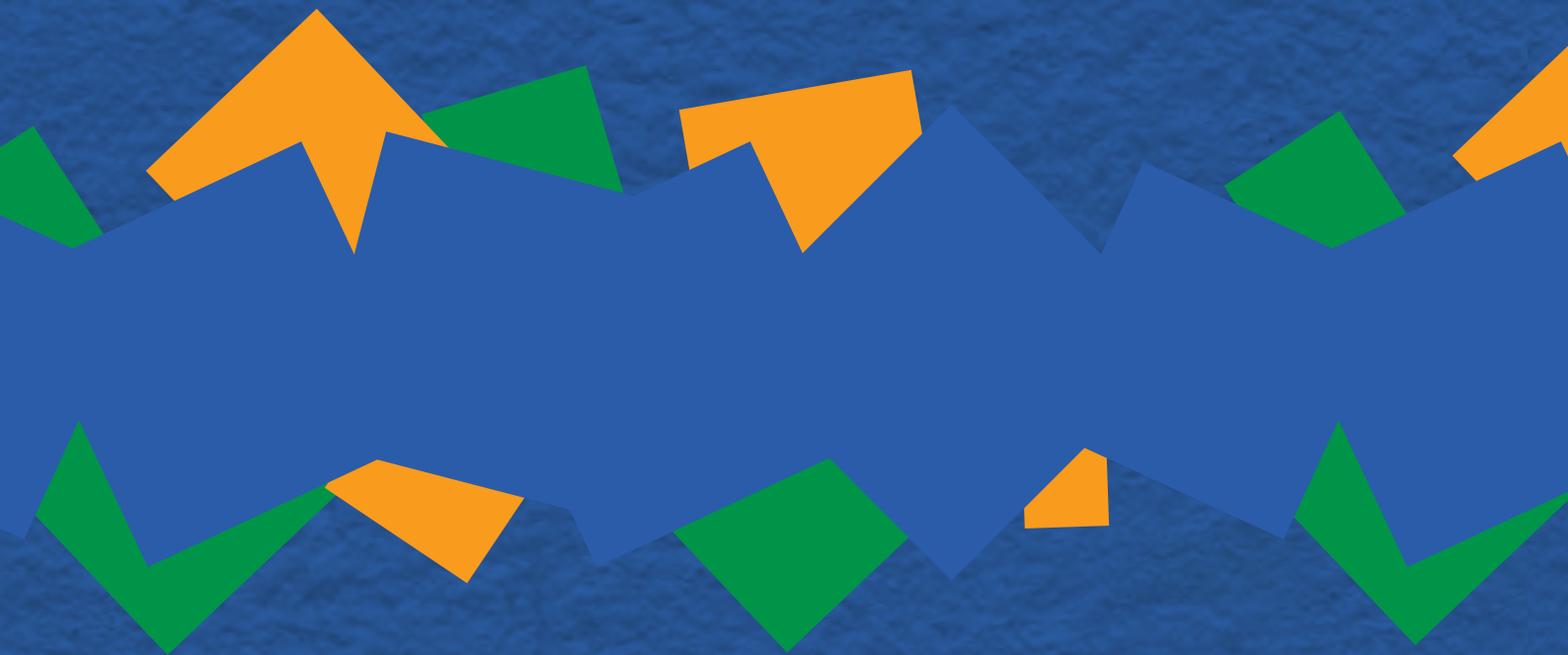
n. 1 – Structure of the 2012 Sustainability Report	8
n. 2 – Acea Group activities	21
n. 3 – The shareholding structure as of 31 December 2012	22
n. 4 – Operational set-up as of 31 December 2012 (direct investee companies of Acea SpA)	24
n. 5 – Contribution of the business segments to the overall EBITDA (2011-2012)	27
n. 6 – Acea Spa organisation chart as of 31 December 2012	44
n. 7 – Internal regulations system	51
n. 8 – Acea and its stakeholders	54
n. 9 – The Acea values system vis-à-vis the stakeholders	55
n. 10 – Global opinions on the services supplied (2010-2012)	71
n. 11 – Electricity service – protected market sales: overall customer satisfaction CSI and satisfaction intensity CSI and on macro-components (1st and 2nd half of 2012)	72
n. 12 – Electricity service – eligible market sales: overall customer satisfaction CSI and satisfaction intensity CSI and on macro-components (1st and 2nd half of 2012)	73
n. 13 – Electricity service - network: overall customer satisfaction CSI and satisfaction intensity CSI and on macro-components (1st and 2nd half of 2012)	75
n. 14 – Water service: overall customer satisfaction CSI and satisfaction intensity CSI and on macro-components (1st and 2nd half of 2012)	77
n. 15 – Public lighting service: overall customer satisfaction CSI and satisfaction intensity CSI and on macro-components (1st and 2nd half of 2012)	79
n. 16 – Trend in Acea performance for repairing public lighting faults (2008-2012)	95
n. 17 – Types of public lighting fault out of total reports received (2012)	96
n. 18 – Type of measures carried out on the sewage networks in ATO 2 – central Lazio (Rome and municipalities managed) (2012)	104
n. 19 – Electricity price trend for a typical household consumer (cents/kwh) (2011 -2012)	105
n. 20 – Total telephone traffic of Acea free-phone numbers (2011-2012)	113
n. 21 – Percentage-related distribution of the telephone traffic received by Acea free-phone numbers in 2012	113
n. 22 – Acea website: the main indicators (monthly averages 2010-2012)	118
n. 23 – Value of tender contracts and incidence of the main types on the total (2010 -2012)	129
n. 24 – Breakdown of the costs for supplies (goods, services, work) by business segment (2010-2012)	130
n. 25 – Geographic distribution of the suppliers and the amounts for the procurement of goods and services, in Italy and abroad (2010-2012)	132
n. 26 – Geographic distribution of the amounts for work contracted out (2010-2012)	134
n. 27 – Breakdown of accidents by business area (2011-2012)	154
n. 28 – Industrial accidents and frequency and severity indexes (2010-2012)	154
n. 29 – Breakdown of training hours by role (2010-2012)	164
n. 30 – Overall number of SRI funds in Europe (2008-2012)	171
n. 31 – Total assets under management for SRI funds in Europe and Italy (2008-2012)	171
n. 32 – assets under management for SRI funds by country (2012)	172
n. 33 – Breakdown of investments by business sector (2011-2012)	178
n. 34 – Energy saving targets assigned to Acea Distribuzione, surplus tees produced (2010 – 2012)	206

n. 35 – Water companies: overall progress of the energy efficiency plans (2012)	207
n. 36 – The Group's water distribution network in Italy (2012)	208
n. 37 – Volumes of drinking water introduced into the network: by company (2012)	208
n. 38 – Analytical checks on drinking water: totals and by company (2012)	210
n. 39 – Analytical checks on waste water: totals and by company (2012)	210
n. 40 – Sewerage networks: total and by company (2012)	213
n. 41 – Treatment plants: total and by company (2012)	213
n. 42 – Volumes of waste water treated in total and by company (2012)	213
n. 43 – Real water losses, parameter A15 (Italian Ministerial Decree no. 99/97)	218
n. 44 – Group waste production for the energy area (2010-2012)	221
n. 45 – Production of waste from waste to energy process (2010-2012)	221
n. 46 – Group waste production for the water area (2010-2012)	222

## Tables

n. 1 – Materiality: mapping of the importance	7
n. 2 – Level of application of the GRI-G3.1 guidelines	7
n. 3 – Global Compact-GRI	10
n. 4 – Standard GRI-G3.1 elements	12
n. 5 – The Acea Group: the numbers for 2012	22
n. 6 – Scope of consolidation as of 31 December 2012 (companies consolidated on a line-by-line and proportional basis)	23
n. 7 – Acea Group income statement and equity highlights (2011-2012)	26
n. 8 – Acea Group balance sheet figures and net financial position (2011-2012)	28
n. 9 – The main profitability indicators (2009-2012)	28
n. 10 – Acea instruments for sustainable development and social responsibility	32
n. 11 – Economic value directly generated and distributed (2011-2012)	57
n. 12 – Breakdown of the value generated by stakeholder (2011-2012)	57
n. 13 – GRI-G3.1 economic and social indicators	60
n. 14 – Gas and electricity sales: Acea Group customers by market type (2010-2012)	69
n. 15 – Customer and inhabitants served in Italy by the main Acea Group water companies (2012)	70
n. 16 – Overall opinion on the electricity service (2011-2012)	71
n. 17 – Electricity service (sales - protected and eligible markets): percentage of those satisfied on specific aspects (2012)	74
n. 18 – Electricity service (network): percentage of those satisfied on specific aspects (2012)	75
n. 19 – Overall opinion on the water supply service in Rome (2011-2012)	76
n. 20 – Rome water service: percentage of those satisfied on specific aspects (2012)	78
n. 21 – Overall opinion on public lighting in Rome (2011-2012)	78
n. 22 – Public lighting service: percentage of those satisfied on specific aspects (2012)	80
n. 23 – Main measures in 2012 for the management and development of electricity networks and stations	83
n. 24 – Specific levels of commercial quality and performances achieved by Acea Distribuzione (2011-2012)	85
n. 25 – Automatic compensation for customers in the event of failed observance of the "specific" quality levels (2012)	86

n. 26 – Specific levels of commercial quality: promptness of the distributor in communicating the technical data to the seller (2011-2012)	87	n. 63 – Acea’s employees - pegaso: gender and age bracket (2012)	159
n. 27 – Specific levels of commercial quality and performances achieved by Acea Energia - protected market (2011-2012) (figures communicated to the AEEG)	87	n. 64 – Acea’s employees - Pegaso: grade (2012)	159
n. 28 – Specific levels of commercial quality and performances achieved by Acea Energia - eligible market (2011-2012) (figures communicated to the AEEG)	87	n. 65 – Return on the value of the units of the Pegaso segments and the employee leaving indemnity as of 31 december 2012	159
n. 29 - General levels of commercial quality and performances achieved by Acea Distribuzione (2010 - 2011)	88	n. 66 – Training courses and costs (2011-2012)	164
n. 30 – General levels of commercial quality and performances achieved by Acea Energia - protected market (2011-2012)	89	n. 67 – Members who use CRA services (2010-2012)	168
n. 31 – General levels of commercial quality and performances achieved by Acea Energia - eligible market (2011-2012)	89	n. 68 – Acea stock and stock exchange index performance (2012)	169
n. 32 – Electricity service continuity indicators for Iv customers: blackout duration and improvement percentages (2010-2012)	90	n. 69 – 2012 Ratings	169
n. 33 – Electricity service continuity indicators for Iv customers: average number of blackouts and improvement percentages (2010-2012)	90	n. 70 – Webranking Italia Top 100: Acea’s ranking (2010-2012)	170
n. 34 – Public lighting in Rome: the numbers (2012)	91	n. 71 – CSR online awards Italy: Acea’s ranking (2010-2012)	170
n. 35 – Main public lighting measures on lighting units (2012)	93	n. 72 – GRI-G3.1 environmental indicators	188
n. 36 – Scheduled and extraordinary public lighting repairs and maintenance (2012)	94	n. 73 – Environmental expenditure of the main operating companies (2010-2012)	196
n. 37 – Public lighting fault repairs: Acea fines, standards and performances (2011-2012)	95	n. 74 – Energy produced, broken down by primary energy source (2010-2012)	198
n. 38 – The main artistic monumental lighting measures in 2012	96	n. 75 – Potential energy, broken down by primary energy source used (2010-2012)	199
n. 39 – Main measures on the acqueduct system and drinking water checks in ATO 2 – central Lazio (2012)	101	n. 76 – Acea Produzione electricity plants	199
n. 40 – Number, type and duration of water supply stoppages (2010-2012)	102	n. 77 – Group installed electric power broken down by energy source (2010-2012)	201
n. 41 – Main measures on the treatment and sewerage system and waste water checks in ATO 2 – central Lazio (2012)	104	n. 78 – Availability indexes for Acea Produzione plants (2010 - 2012)	202
n. 42 – Average 2012 water tariffs applied by the Acea Group companies (2012)	108	n. 79 – Average output of the Acea Produzione plants (2010-2012)	202
n. 43 – The main performance indicators of the Acea free-phone numbers (2011-2012)	114	n. 80 – San Vittore del Lazio waste to energy plant: running figures (2011-2012)	203
n. 44 – Counter performance at central headquarters (2010-2012)	116	n. 81 – Overhead and underground distribution lines and plants: numbers (2010-2012)	204
n. 45 – 2012 top ten suppliers of goods and services to the Group and percentage of total (2012)	132	n. 82 – The springs under protection in Ato 2 – Central Lazio	209
n. 46 – 2012 top ten suppliers of work to the Group and percentage of total (2012)	133	n. 83 – Analytical checks on drinking water: totals and by company (2010-2012)	210
n. 47 – Evolution of group employees by business segment (2010-2012)	140	n. 84 – Analytical checks on waste water: totals and by company (2010-2012)	210
n. 48 – Geographic location of human resources (2011-2012)	140	n. 85 – Analytical tests carried out overall in Ato 2 - Central Lazio (2010-2012)	211
n. 49 – Acea’s employees: composition of the human resources (2010-2012)	141	n. 86 – Analytical tests on drinking water – historic network of Rome (2010-2012)	211
n. 50 – Acea’s employees: new recruits and leavers (2010-2012)	142	n. 87 – Average chemical and microbiological features of the water distributed in Rome and italian legislative Decree no. 31/01 (2012)	212
n. 51 – Acea’s employees: duration of the employment relationship (2012)	143	n. 88 - Parameters exiting the main treatment plants managed by Acea Ato 2 – Municipality of Rome (2012)	214
n. 52 – Energy sector companies: duration of the employment relationship (2012)	143	n. 89 – The Acea Group’s direct energy consumption (2010-2012)	216
n. 53 – Acea’s employees: contract types (2010-2012)	143	n. 90 – The Acea Group’s indirect energy consumption (2010-2012)	217
n. 54 – Turnover, recruitment, and leaver rates (2010-2012)	144	n. 91 – Acea vehicle fleet consumption (2010- 2012)	217
n. 55 – Acea’s employees: average age of the human resources (2010-2012)	144	n. 92 – Acea Group water consumption (2010-2012)	218
n. 56 – Acea’s employees: average length of service of the human resources (2010-2012)	144	n. 93 – CO <sub>2</sub> emission quotas as per the PNA and effective emissions by plant (2010-2012)	219
n. 57 – Acea’s employees: age bracket (2012)	145	n. 94 – Atmospheric emissions produced by the San Vittore del Lazio waste to energy plant (2010-2012)	220
n. 58 – Acea’s employees: level of education (2010-2012)	145	n. 95 - Total Acea Group emissions (2010-2012)	220
n. 59 – Women within Acea (2010-2012)	151	n. 96 – Total waste produced by the Acea Group (2012)	221
n. 60 – Acea’s employees: working hours (2010-2012)	151	n. 97 – Main research activities on drinking water quality and sources	224
n. 61 – Acea’s employees: days of absence (2010-2012)	152	n. 98 – Main research activities on treatment plants	225
n. 62 – Average gross remuneration by role (2011-2012)	157	n. 99 – Main research activities on catchment areas	226
		n. 100 – Main research activities on sewerage networks and treatment sludge	227





## Environmental accounts

Product systems

The products

The resources used

Emissions and waste

Key environmental performance  
indicators (KPI)

Explanatory notes  
to the Environmental accounts

# Environmental accounts

## THE BOUNDARIES

The 2012 boundaries include Acea SpA, Acea Distribuzione, Acea Reti e Servizi Energetici, Acea Produzione, Acea Energy, Local Unit 3 of San Vittore del Lazio and Local Unit 1 of Terni, both of A.R.I.A., LaboratoRI, Acea Ato 2, Acea Ato 5, Acque, Gori, Acquedotto del Fiora, Publiacqua and Umbra Acque.

Since 2011 the electricity generation plants, using traditional and renewable sources, have been wholly-owned by Acea SpA, via the companies Acea Produzione, Acea Reti e Servizi Energetici and A.R.I.A.

With regard to the water sector, besides the information relating to the "historic" company Acea Ato 2, the account items relating to the other companies indicated above are also provided, as highlighted in the tables, as and when appropriate.

Note that the water figures are considered globally, irrespective of the holding of the parent company, because Acea represents the industrial entity responsible for the management activities within each of the companies considered.

The Environmental Accounts, an integral part of the *Sustainability Report*, bring together and systematically present the information and data on Acea Group's environmental performance in an in-depth manner.

Figures are separated into "product systems" for the energy, environment and water sectors according to the Life Cycle Assessment approach<sup>1</sup> (ISO standard 14040 series), which assesses the entire life cycle of the systems.

Additional information is provided in the Explanatory Notes concerning the quality of the figures presented herein, especially when such are measured, estimated or calculated, and the items of the Environmental Accounts (indicated in the tables and in the text by a number in brackets) are accompanied by a brief illustrative description.

<sup>1</sup> LCA is a method used to analyze a series of interactions that a product or service has with the environment, considering its entire life cycle, which includes pre-production (therefore material extraction and production), production, distribution, use (therefore reuse and maintenance), recycling and final disposal.



# Product systems

ENERGY	ENVIRONMENT	WATER
<ul style="list-style-type: none"> <li>• Energy generation (thermoelectric + hydroelectric + photovoltaic + waste-to-energy)</li> <li>• Electricity distribution</li> <li>• Heat production and distribution</li> <li>• Public lighting</li> <li>• Tests and Inspections</li> </ul>	<ul style="list-style-type: none"> <li>• Compost production</li> </ul>	<ul style="list-style-type: none"> <li>• Drinking water supply</li> <li>• Non-drinking water supply</li> <li>• Water distribution</li> <li>• Waste water transportation/treatment</li> <li>• Analysis and research laboratory</li> </ul>

The figures are provided for the three-year period 2010-2012 and are grouped together in three similar categories:

- **the product supplied;**
- **the resources used;**
- **the waste produced.**

The performance indicators and the key environmental performance indicators are illustrated for each sector below.



## The products - Energy

Electricity generation figures refer to Acea Produzione (AP) (100% Acea SpA), A.R.I.A (100% Acea SpA) and Acea Reti e Servizi Energetici (100% Acea SpA).

<b>ELECTRICITY – GENERATION</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Summarized figures</b>					
<b>Total gross electricity produced (1) = (3+11+16)</b>	<b>GWh</b>	<b>822.65</b>	<b>544.35</b>	<b>651.76</b>	<b>19.7</b>
<b>Total net electricity produced (2) = (10+15+18)</b>	<b>GWh</b>	<b>767.57</b>	<b>504.19</b>	<b>604.59</b>	<b>19.9</b>
<i>From fossil sources (thermoelectric) (5+0,49x12<sub>San Vittore</sub>)</i>	<i>GWh</i>	<i>218.42</i>	<i>95.66</i>	<i>119.94</i>	<i>25.4</i>
<i>From renewable sources (hydroelectric, solar, biodegradable fraction of waste) (4+0,51x12<sub>San Vittore</sub>+16)</i>	<i>GWh</i>	<i>604.23</i>	<i>448.69</i>	<i>532.54</i>	<i>18.7</i>
<b>Acea Produzione (100% Acea)</b>					
<b>Total gross electricity produced (3) = (4+5)</b>	<b>GWh</b>	<b>678.85</b>	<b>343.36</b>	<b>373.09</b>	<b>8.7</b>
<b>Total gross hydroelectric energy (4)</b>	<b>GWh</b>	<b>499.71</b>	<b>320.92</b>	<b>360.80</b>	<b>12.4</b>
<i>A. Volta Castel Madama</i>	<i>GWh</i>	<i>30.26</i>	<i>23.48</i>	<i>15.55</i>	<i>-33.8</i>
<i>G. Ferraris Mandela</i>	<i>GWh</i>	<i>22.91</i>	<i>15.31</i>	<i>10.26</i>	<i>-33.0</i>
<i>G. Marconi Orte</i>	<i>GWh</i>	<i>80.06</i>	<i>67.24</i>	<i>48.07</i>	<i>-28.5</i>
<i>Sant'Angelo</i>	<i>GWh</i>	<i>185.56</i>	<i>153.72</i>	<i>108.77</i>	<i>-29.2</i>
<i>Salisano</i>	<i>GWh</i>	<i>179.04</i>	<i>58.24</i>	<i>175.94</i>	<i>202.1</i>
<i>Other minor plants</i>	<i>GWh</i>	<i>1.89</i>	<i>2.93</i>	<i>2.21</i>	<i>-24.6</i>
<b>Total gross thermoelectric energy (5)</b>	<b>GWh</b>	<b>179.14</b>	<b>22.44</b>	<b>12.29</b>	<b>-45.2</b>
<i>From gas oil</i>					
<i>Montemartini Plant (*)</i>	<i>GWh</i>	<i>2.81</i>	<i>4.68</i>	<i>1.94</i>	<i>-58.5</i>
<i>From natural gas</i>	<i>GWh</i>	<i>176.33</i>	<i>17.76</i>	<i>10.34</i>	<i>-41.8</i>
<i>Tor di Valle combined cycle</i>	<i>GWh</i>	<i>166.00</i>	<i>9.71</i>	<i>1.09</i>	<i>-88.8</i>
<i>Tor di Valle co-generation plant</i>	<i>GWh</i>	<i>10.33</i>	<i>8.05</i>	<i>9.25</i>	<i>14.9</i>
<b>Total electricity losses (6) = (7+8+9)</b>	<b>GWh</b>	<b>40.47</b>	<b>16.34</b>	<b>13.29</b>	<b>-18.7</b>
<i>Internal consumption - hydroelectric plants (7)</i>	<i>GWh</i>	<i>2.28</i>	<i>2.17</i>	<i>2.49</i>	<i>14.7</i>
<i>Internal consumption - heat plants (Tor di Valle, Montemartini) (8)</i>	<i>GWh</i>	<i>12.21</i>	<i>7.51</i>	<i>6.04</i>	<i>-19.6</i>
<i>Initial transformation losses (9)</i>	<i>GWh</i>	<i>25.98</i>	<i>6.66</i>	<i>4.76</i>	<i>-28.5</i>
<b>Total net electricity produced by Acea Produzione (10) = (3-6)</b>	<b>GWh</b>	<b>638.38</b>	<b>327.01</b>	<b>359.80</b>	<b>10.0</b>
<b>A.R.I.A. (waste-to-energy) (100% Acea)</b>					
<b>Total gross energy produced (11) = (12+13)</b>	<b>GWh</b>	<b>125.64</b>	<b>149.43</b>	<b>218.24</b>	<b>46.0</b>
<i>San Vittore del Lazio plant (12)</i>	<i>GWh</i>	<i>80.17</i>	<i>149.43</i>	<i>218.24</i>	<i>46.0</i>
<i>Terni plant (13) (**)</i>	<i>GWh</i>	<i>45.47</i>	<i>n.a.</i>	<i>n.a.</i>	<i>-</i>
<b>Total electricity losses (14)</b>	<b>GWh</b>	<b>14.41</b>	<b>21.34</b>	<b>29.59</b>	<b>38.7</b>
<i>San Vittore del Lazio internal consumption</i>	<i>GWh</i>	<i>9.57</i>	<i>21.34</i>	<i>29.59</i>	<i>38.7</i>
<i>Terni internal consumption</i>	<i>GWh</i>	<i>4.84</i>	<i>n.a.</i>	<i>n.a.</i>	<i>-</i>
<b>Total net electricity produced (15) = (11-14)</b>	<b>GWh</b>	<b>111.23</b>	<b>128.09</b>	<b>188.65</b>	<b>47.3</b>

<b>ELECTRICITY – GENERATION</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Acea Reti e Servizi Energetici (100% Acea)</b>					
<b>Gross photovoltaic energy (16)</b>	<b>GWh</b>	<b>18.16</b>	<b>51.56</b>	<b>60.43</b>	<b>17.2</b>
Total electricity losses (17)	GWh	0.19	2.46	4.29	74.4
<b>Net photovoltaic energy (18) = (16-17)</b>	<b>GWh</b>	<b>17.97</b>	<b>49.10</b>	<b>56.14</b>	<b>14.3</b>

(\*) The Montemartini plant remains operational but only as a standby.

(\*\*) As from August 9th 2010, the Terni plant was shutdown for revamping work, still underway in 2012.

<b>THERMAL ENERGY – GENERATION</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Acea Produzione (100% Acea)</b>					
<b>Gross thermal energy produced Tor di Valle plant (19)</b>	<b>GWh<sub>t</sub></b>	<b>84.77</b>	<b>84.64</b>	<b>87.96</b>	<b>3.9</b>
Total thermal electricity losses (20)	GWh <sub>t</sub>	21.65	16.40	11.62	-29.1
<i>Distribution losses</i>	GWh <sub>t</sub>	18.76	13.90	9.35	-32.7
<i>Production losses</i>	GWh <sub>t</sub>	2.89	2.50	2.27	-9.2
<b>Net thermal energy sold (21) = (19-20)</b>	<b>GWh<sub>t</sub></b>	<b>63.12</b>	<b>68.24</b>	<b>76.34</b>	<b>11.9</b>

<b>ELECTRICITY – TRANSPORT AND SALE</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>to Rome and Formello - Summarized figures</b>					
Supply from Acea Group (22)	GWh	1.57	2.93	2.18	-25.6
Electricity from the market (23)	GWh	11,899.15	11,869.00	11,861.09	-0.1
<i>from Sole Buyer</i>	GWh	4,093.54	3,493.75	3,327.25	-4.8
<i>from imports</i>	GWh	432.38	432.38	433.56	0.3
<i>from third party producers interconnected to the Acea Distribuzione network (*)</i>	GWh	25.06	20.14	0.00	-
<i>from wholesalers + other producers</i>	GWh	7,348.17	7,922.74	8,100.28	2.2
<b>Electricity demand on the network (24) = (22+23) = (25+26+27+28+29)</b>	<b>GWh</b>	<b>11,900.72</b>	<b>11,871.93</b>	<b>11,863.27</b>	<b>-0.1</b>
Distribution, transport and commercial losses (25)	GWh	717.57 6.03% of (24)	733.10 6.18% of (24)	757.12 6.38% of (24)	3.3
Internal transmission and distribution (26)	GWh	30.55	27.90	30.61	9.7
Net electricity sold to third parties (27)	GWh	2.85	2.86	2.54	-11.2
<b>Net electricity conveyed by Acea to free market customer (28)</b>	<b>GWh</b>	<b>6,935.05</b>	<b>7,461.57</b>	<b>7,636.13</b>	<b>2.3</b>
<i>Net electricity sold by Acea Elettricità to free market customers on Acea Distribuzione network</i>	GWh	3,745.02	3,974.33	4,627.90	16.4
<i>Net electricity sold by Other Sellers to free market customers on Acea Distribuzione network</i>	GWh	3,190.03	3,487.24	3,008.23	-13.7
<b>Electricity sold to protected customers (29)</b>	<b>GWh</b>	<b>4,214.70</b>	<b>3,646.50</b>	<b>3,436.87</b>	<b>-5.7</b>

<b>ELECTRICITY – TRANSPORT AND SALE</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Sale in Italy - Summarized figures</b>					
<b>Net electricity sold by Acea on the free market - including sale on Rome (30)</b>	<b>GWh</b>	<b>15,400</b>	<b>12,891</b>	<b>9,960</b>	<b>-22.7</b>
<i>Acea Elettricità</i>	<i>GWh</i>	<i>12,400</i>	<i>10,139</i>	<i>9,050</i>	<i>-10.7</i>
<i>Other investee companies</i>	<i>GWh</i>	<i>3,000</i>	<i>2,752</i>	<i>910</i>	<i>-66.9</i>
<b>Net electricity sold by Acea in Italy (free market + protected customers) (29+30)</b>	<b>GWh</b>	<b>19,615</b>	<b>16,537</b>	<b>13,397</b>	<b>-19.0</b>

(\* In 2012 a thermoelectric production plant located at Malagrotta was temporarily suspended. In 2011 it produced 20.14 GWh.

<b>PUBLIC LIGHTING</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Lighting flux in Rome (31)</b>	<b>Mlumen</b>	<b>2,925</b>	<b>3,057</b>	<b>3,148</b>	<b>3.0</b>

<b>MONITORING AND GAUGING</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Monitoring and gauging activities (32)</b>	<b>No.</b>	<b>373</b>	<b>339</b>	<b>488</b>	<b>44.0</b>
<i>Electromagnetic field measures</i>	<i>No.</i>	<i>31</i>	<i>7</i>	<i>42</i>	<i>500.0</i>
<i>Noise monitoring</i>	<i>No.</i>	<i>7</i>	<i>3</i>	<i>39</i>	<i>1,200.0</i>
<i>Chemical analysis of PCB</i>	<i>No.</i>	<i>50</i>	<i>103</i>	<i>151</i>	<i>46.6</i>
<i>Waste classification</i>	<i>No.</i>	<i>40</i>	<i>13</i>	<i>16</i>	<i>23.1</i>
<i>Transformer diagnostics</i>	<i>No.</i>	<i>231</i>	<i>196</i>	<i>213</i>	<i>8.7</i>
<i>Other</i>	<i>No.</i>	<i>14</i>	<i>17</i>	<i>27</i>	<i>58.8</i>

## The products - Environment

Data refer to the companies Kyklos and Solemme, both in Aquaser Srl (100% Acea SpA)

<b>PRODUCTION OF COMPOST</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>High Quality Compost (32A)</b>	<b>t</b>	<b>10,077.26</b>	<b>19,473.92</b>	<b>11,652.66</b>	<b>-40.2</b>
<i>Kyklos</i>	<i>t</i>	<i>7,320.42</i>	<i>16,438.22</i>	<i>9,295.66</i>	<i>-43.5</i>
<i>Solemme</i>	<i>t</i>	<i>2,756.84</i>	<i>3,035.70</i>	<i>2,357.00</i>	<i>-22.4</i>

## The products - Water

Summarized water figures include the main water companies in the Acea Group - Acea Ato 2, Acea Ato 5, Gori, Acque, Publiacqua, Acquedotto del Fiora and Umbra Acque, calculated at 100%. This in consideration of the role of industrial entity responsible for management, covered by Acea in the shareholding structures of the service providers.

<b>GROUP WATER BALANCE IN ITALY</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Summarized figures</b>					
<b>Total drinking water withdrawn from the environment or from other systems (33)</b>	<b>Mm<sup>3</sup></b>	<b>1,383.9</b>	<b>1,401.5</b>	<b>1,399.1</b>	<b>-0.2</b>
<b>Total drinking water introduced onto the network (34)</b>	<b>Mm<sup>3</sup></b>	<b>1,251.5</b>	<b>1,254.6</b>	<b>1,263.0</b>	<b>0.7</b>
<b>Total drinking water supplied (35)</b>	<b>Mm<sup>3</sup></b>	<b>672.0</b>	<b>668.7</b>	<b>655.7</b>	<b>-1.9</b>

<b>WATER BALANCE OF THE COMPANIES OPERATING IN THE REGIONS OF LAZIO AND CAMPANIA</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Acea Ato 2 for Rome historic network</b>					
<b>Drinking water withdrawn from the environment (36)</b>	<b>Mm<sup>3</sup></b>	<b>594.0</b>	<b>612.8</b>	<b>609.8</b>	<b>-0.5</b>
<i>from Lake Bracciano, treated</i>	<i>Mm<sup>3</sup></i>	<i>2.1</i>	<i>13.9</i>	<i>21.9</i>	<i>57.6</i>
<i>from wells</i>	<i>Mm<sup>3</sup></i>	<i>8.9</i>	<i>16.2</i>	<i>27.2</i>	<i>67.9</i>
<i>from springs</i>	<i>Mm<sup>3</sup></i>	<i>583.0</i>	<i>582.6</i>	<i>560.7</i>	<i>-3.8</i>
Drinking water sold to municipal retailers (37)	Mm <sup>3</sup>	73.7	89.8	92.4	2.9
Drinking water introduced onto non-drinking water network (38)	Mm <sup>3</sup>	17.7	14.8	16.1	8.8
Drinking water returned to the environment /technical operating volumes (39)	Mm <sup>3</sup>	32.8	37.4	28.5	-23.8
<b>Drinking water introduced onto the Rome historic network (40) = (36) - (37+38+39)</b>	<b>Mm<sup>3</sup></b>	<b>469.8</b>	<b>470.8</b>	<b>472.7</b>	<b>0.4</b>
<b>Drinking water supplied via the Rome historic network (41)</b>	<b>Mm<sup>3</sup></b>	<b>300.4</b>	<b>300.3</b>	<b>298.0</b>	<b>-0.8</b>
<b>Assessment of losses according to Italian Ministerial Decree No. 99/97</b>					
Overall losses (parameter A17 MD 99/97) (42)	Mm <sup>3</sup>	154.0	155.1	159.3	2.7
Effective losses (parameter A15 MD 99/97) (43)	Mm <sup>3</sup>	116.4	117.5	122.1	3.8
		24.8% of (40)	25.0% of (40)	25.8% of (40)	

**WATER BALANCE OF THE COMPANIES OPERATING  
IN THE REGIONS OF LAZIO AND CAMPANIA**
**Water balance - Rome non-drinking water network**

	unit of measurement	2010	2011	2012	Δ % 2012/2011
<b>Non-drinking water withdrawn from the environment (44)</b>	<b>Mm<sup>3</sup></b>	<b>24.8</b>	<b>23.7</b>	<b>29.7</b>	<b>25.3</b>
<i>from the River Tiber, treated (Grottarossa plant)</i>	<i>Mm<sup>3</sup></i>	<i>0.2</i>	<i>0.0</i>	<i>4.7</i>	<i>-</i>
<i>from springs</i>	<i>Mm<sup>3</sup></i>	<i>6.1</i>	<i>8.9</i>	<i>8.9</i>	<i>0.0</i>
<i>drinking water introduced onto non-drinking network</i>	<i>Mm<sup>3</sup></i>	<i>18.5</i>	<i>14.8</i>	<i>16.1</i>	<i>8.8</i>
<b>Non-drinking water supplied to the Municipality of Rome (45)</b>	<b>Mm<sup>3</sup></b>	<b>14.5</b>	<b>13.8</b>	<b>14.1</b>	<b>2.2</b>
<b>Non-drinking water supplied to other Municipalities (46)</b>	<b>Mm<sup>3</sup></b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.0</b>

**Acea Ato 2 for ATO 2 – Central Lazio (Rome + 73 municipalities acquired as of 31 Dec. 2012)**

<b>Drinking water withdrawn from the environment (47)</b>	<b>Mm<sup>3</sup></b>	<b>701.5</b>	<b>718.1</b>	<b>715.4</b>	<b>-0.4</b>
<i>from Lake Bracciano, treated</i>	<i>Mm<sup>3</sup></i>	<i>2.1</i>	<i>13.9</i>	<i>21.9</i>	<i>57.6</i>
<i>from wells</i>	<i>Mm<sup>3</sup></i>	<i>69.6</i>	<i>76.9</i>	<i>89.6</i>	<i>16.5</i>
<i>from springs</i>	<i>Mm<sup>3</sup></i>	<i>628.1</i>	<i>625.6</i>	<i>602.3</i>	<i>-3.7</i>
<i>from other aqueduct systems</i>	<i>Mm<sup>3</sup></i>	<i>1.7</i>	<i>1.6</i>	<i>1.6</i>	<i>0.0</i>
Drinking water sold to municipal retailers (48)	Mm <sup>3</sup>	53.2	64.5	68.2	5.7
Drinking water introduced onto non-drinking water network (49)	Mm <sup>3</sup>	17.7	14.8	16.1	8.8
Drinking water returned to the environment /technical operating volumes (50)	Mm <sup>3</sup>	34.1	40.1	28.50	-28.9
<b>Drinking water introduced onto the ATO 2 network (51) = (47) - (48+49+50)</b>	<b>Mm<sup>3</sup></b>	<b>596.6</b>	<b>598.7</b>	<b>602.5</b>	<b>0.6</b>
<b>Total drinking water supplied to the ATO 2 network (52)</b>	<b>Mm<sup>3</sup></b>	<b>358.9</b>	<b>359.6</b>	<b>349.7</b>	<b>-2.8</b>
<b>Assessment of losses according to Italian Ministerial Decree No. 99/97</b>					
Overall losses (parameter A17 MD 99/97) (53)	Mm <sup>3</sup>	215.4	216.6	229.5	6.0
Effective losses (parameter A15 MD 99/97) (54)	Mm <sup>3</sup>	160.2	161.2	177.6	10.2
		26.9% of (51)	26.9% of (51)	29.5% of (51)	

**Acea Ato 5 for ATO 5 –Southern Lazio - Frosinone (85 municipalities)**

<b>Drinking water withdrawn from the environment (55)</b>	<b>Mm<sup>3</sup></b>	<b>103.9</b>	<b>103.9</b>	<b>98.8</b>	<b>-4.9</b>
<i>from lakes/rivers</i>	<i>Mm<sup>3</sup></i>	<i>0</i>	<i>0</i>	<i>0.0</i>	
<i>from wells</i>	<i>Mm<sup>3</sup></i>	<i>73.8</i>	<i>73.8</i>	<i>68.6</i>	<i>-7.0</i>
<i>from springs</i>	<i>Mm<sup>3</sup></i>	<i>30.1</i>	<i>30.1</i>	<i>30.2</i>	<i>0.3</i>
<b>Drinking water introduced onto network (56)</b>	<b>Mm<sup>3</sup></b>	<b>93.8</b>	<b>93.5</b>	<b>93.7</b>	<b>0.2</b>
<b>Drinking water supplied (57)</b>	<b>Mm<sup>3</sup></b>	<b>21.3</b>	<b>20.4</b>	<b>20.7</b>	<b>1.5</b>
<b>Assessment of losses according to Italian Ministerial Decree No. 99/97</b>					
Overall losses (parameter A17 MD 99/97) (58)	Mm <sup>3</sup>	70.00	70.50	70.41	-0.1
Effective losses (parameter A15 MD 99/97) (59)	Mm <sup>3</sup>	56.00	56.80	56.60	-0.4
		59.7% of (56)	60.7% of (56)	60.4% of (56)	

**Gori for ATO 3 - Sarnese Vesuviano (76 municipalities)**

<b>Drinking water withdrawn from the environment (60)</b>	<b>Mm<sup>3</sup></b>	<b>40.07</b>	<b>41.17</b>	<b>38.83</b>	<b>-5.7</b>
<i>from lakes/rivers</i>	<i>Mm<sup>3</sup></i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>-</i>
<i>from wells</i>	<i>Mm<sup>3</sup></i>	<i>36.55</i>	<i>38.56</i>	<i>36.19</i>	<i>-6.1</i>
<i>from springs</i>	<i>Mm<sup>3</sup></i>	<i>3.52</i>	<i>2.61</i>	<i>2.64</i>	<i>1.1</i>
<b>Water withdrawn from other aqueduct systems (61)</b>	<b>Mm<sup>3</sup></b>	<b>169.2</b>	<b>170.4</b>	<b>175.8</b>	<b>3.2</b>
<b>Drinking water introduced onto the network (62) = (60) + (61)</b>	<b>Mm<sup>3</sup></b>	<b>209.3</b>	<b>211.57</b>	<b>214.63</b>	<b>1.4</b>
<b>Drinking water supplied (63)</b>	<b>Mm<sup>3</sup></b>	<b>93.95</b>	<b>91.12</b>	<b>91.12</b>	<b>0.0</b>
<b>Assessment of losses according to Italian Ministerial Decree No. 99/97</b>					
Overall losses (parameter A17 MD 99/97) (64)	Mm <sup>3</sup>	114.28	119.33	123.49	3.5
Effective losses (parameter A15 MD 99/97) (65)	Mm <sup>3</sup>	92.97	94.62	94.62	0.0
		44.4% of (62)	44.7% of (62)	44.1% of (62)	

<b>WATER BALANCE OF THE COMPANIES OPERATING IN THE REGIONS OF TUSCANY AND UMBRIA</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Publiacqua per ATO 3 – Medio Valdarno (52 comuni)</b>					
<b>Drinking water withdrawn from the environment (66)</b>	<b>Mm<sup>3</sup></b>	<b>166.2</b>	<b>163.6</b>	<b>167.6</b>	<b>2.4</b>
<i>from lakes/rivers</i>	<i>Mm<sup>3</sup></i>	109.80	108.1	110.7	2.4
<i>from wells</i>	<i>Mm<sup>3</sup></i>	44.1	43.6	44.6	2.3
<i>from springs</i>	<i>Mm<sup>3</sup></i>	12.3	11.9	12.2	2.5
<b>Drinking water introduced onto the network (67)</b>	<b>Mm<sup>3</sup></b>	<b>151.0</b>	<b>148.8</b>	<b>151.6</b>	<b>1.9</b>
<b>Drinking water supplied (68)</b>	<b>Mm<sup>3</sup></b>	<b>86.0</b>	<b>86.0</b>	<b>86.0</b>	<b>0.0</b>
<b>Assessment of losses according to Italian Ministerial Decree No. 99/97</b>					
Overall losses (parameter A17 MD 99/97) (69)	Mm <sup>3</sup>	57.0	55.0	57.4	4.4 4.5
Effective losses (parameter A15 MD 99/97) (70)	Mm <sup>3</sup>	46.6 30.9% of (67)	44.5 29.9% of (67)	46.5 30.7% of (67)	
<b>Acque for ATO 2 – Basso Valdarno (57 municipalities)</b>					
<b>Drinking water withdrawn from the environment (71)</b>	<b>Mm<sup>3</sup></b>	<b>75.38</b>	<b>76.98</b>	<b>74.55</b>	<b>3.2</b>
<i>from lakes/rivers</i>	<i>Mm<sup>3</sup></i>	3.26	3.32	3.63	9.3
<i>from wells</i>	<i>Mm<sup>3</sup></i>	65.26	66.90	65.53	-2.0
<i>from springs</i>	<i>Mm<sup>3</sup></i>	6.85	6.76	5.39	-20.3
<b>Water withdrawn from other aqueduct systems (72)</b>	<b>Mm<sup>3</sup></b>	<b>6.65</b>	<b>5.98</b>	<b>6.09</b>	<b>1.8</b>
<b>Drinking water introduced onto the network (73)</b>	<b>Mm<sup>3</sup></b>	<b>82.02</b>	<b>82.96</b>	<b>80.63</b>	<b>-2.8</b>
<b>Drinking water supplied (74)</b>	<b>Mm<sup>3</sup></b>	<b>49.48</b>	<b>49.48</b>	<b>45.70</b>	<b>-7.6</b>
<b>Assessment of losses according to Italian Ministerial Decree No. 99/97</b>					
Overall losses (parameter A17 MD 99/97) (75)	Mm <sup>3</sup>	27.52	27.55	26.61	-3.4
Effective losses (parameter A15 MD 99/97) (76)	Mm <sup>3</sup>	18.83 23.0% of (73)	18.79 22.6% of (73)	18.08 22.4% of (73)	-3.8
<b>Acquedotto del Fiora for ATO 6 – Ombrone (56 municipalities)</b>					
<b>Drinking water withdrawn from the environment (77)</b>	<b>Mm<sup>3</sup></b>	<b>61.86</b>	<b>62.43</b>	<b>62.75</b>	<b>0.51</b>
<i>from lakes/rivers</i>	<i>Mm<sup>3</sup></i>	0.85	0.85	n.d.	-
<i>from wells</i>	<i>Mm<sup>3</sup></i>	21.97	21.97	n.d.	-
<i>from springs</i>	<i>Mm<sup>3</sup></i>	39.04	39.04	n.d.	-
<b>Drinking water introduced onto the network (78)</b>	<b>Mm<sup>3</sup></b>	<b>59.89</b>	<b>60.33</b>	<b>60.93</b>	<b>1.0</b>
<b>Drinking water supplied (79)</b>	<b>Mm<sup>3</sup></b>	<b>31.45</b>	<b>31.45</b>	<b>31.4</b>	<b>-0.2</b>
<b>Assessment of losses according to Italian Ministerial Decree No. 99/97</b>					
Overall losses (parameter A17 MD 99/97) (80)	Mm <sup>3</sup>	27.84	28.18	n.d.	-
Effective losses (parameter A15 MD 99/97) (81)	Mm <sup>3</sup>	22.76 38.0% of (78)	22.85 37.8% of (78)	n.d.	-
<b>Umbra Acque for ATOs 1 and 2 – Umbria (38 municipalities)</b>					
<b>Drinking water withdrawn from the environment (82)</b>	<b>Mm<sup>3</sup></b>	<b>59.15</b>	<b>58.96</b>	<b>59.30</b>	<b>0.6</b>
<i>from lakes/rivers</i>	<i>Mm<sup>3</sup></i>	0.77	0.98	1.18	20.4
<i>from wells</i>	<i>Mm<sup>3</sup></i>	44.35	44.62	45.27	1.5
<i>from springs</i>	<i>Mm<sup>3</sup></i>	14.03	13.36	12.85	-3.8
<b>Drinking water introduced onto the network (83)</b>	<b>Mm<sup>3</sup></b>	<b>58.91</b>	<b>58.72</b>	<b>59.07</b>	<b>0.6</b>
<b>Drinking water supplied (84)</b>	<b>Mm<sup>3</sup></b>	<b>30.91</b>	<b>30.63</b>	<b>31.09</b>	<b>1.5</b>
<b>Assessment of losses according to Italian Ministerial Decree No. 99/97</b>					
Overall losses (parameter A17 MD 99/97) (85)	Mm <sup>3</sup>	23.68	23.90	23.50	-1.7
Effective losses (parameter A15 MD 99/97) (86)	Mm <sup>3</sup>	22.08 (37.5% of 83)	22.30 (37.9% of 83)	21.9 (37.1% of 83)	-1.8

<b>TOTAL WASTE WATER TREATED BY THE GROUP COMPANIES, IN ITALY</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Waste water treated in main purification plants of the Group companies in Italy (87)</b>	<b>Mm<sup>3</sup></b>	<b>929.0</b>	<b>935.6</b>	<b>851.9</b>	<b>-8.9</b>

<b>WASTE WATER TREATED BY ACEA ATO 2</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Waste water treated in main purification plants (88)</b>	<b>Mm<sup>3</sup></b>	<b>587.2</b>	<b>598.6</b>	<b>522.1</b>	<b>-12.8</b>
<i>Rome South</i>	<i>Mm<sup>3</sup></i>	<i>334.6</i>	<i>353.3</i>	<i>300.2</i>	<i>-15.0</i>
<i>Rome North</i>	<i>Mm<sup>3</sup></i>	<i>112.4</i>	<i>104.7</i>	<i>96.7</i>	<i>-7.6</i>
<i>Rome East</i>	<i>Mm<sup>3</sup></i>	<i>98.9</i>	<i>100.2</i>	<i>87.8</i>	<i>-12.4</i>
<i>Rome Ostia</i>	<i>Mm<sup>3</sup></i>	<i>27.8</i>	<i>26.7</i>	<i>24.5</i>	<i>-8.2</i>
<i>CoBIS</i>	<i>Mm<sup>3</sup></i>	<i>7.8</i>	<i>7.9</i>	<i>7.4</i>	<i>-6.3</i>
<i>Fregene</i>	<i>Mm<sup>3</sup></i>	<i>5.7</i>	<i>5.8</i>	<i>5.5</i>	<i>-5.2</i>
<b>Other – municipality of Rome</b>	<b>Mm<sup>3</sup></b>	<b>13.9</b>	<b>13.4</b>	<b>14.4</b>	<b>7.5</b>
<b>Other – outside Municipality of Rome</b>	<b>Mm<sup>3</sup></b>	<b>58.5</b>	<b>60.8</b>	<b>63.0</b>	<b>3.6</b>
<b>Total waste water treated by Acea Ato 2 (89)</b>	<b>Mm<sup>3</sup></b>	<b>659.6</b>	<b>672.8</b>	<b>599.5</b>	<b>-10.9</b>

<b>ANALYTICAL CONTROLS ON DRINKING WATER AND WASTE WATER FOR ACEA GROUP IN ITALY</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Group total analytical checks on drinking water (90) (*)</b>	<b>No.</b>	<b>1,081,141</b>	<b>1,102,737</b>	<b>1,169,201</b>	<b>6.0</b>
<i>Acea Ato 2</i>	<i>No.</i>	<i>330,269</i>	<i>337,529</i>	<i>328,202</i>	<i>-2.8</i>
<i>Acea Ato 5</i>	<i>No.</i>	<i>74,309</i>	<i>94,327</i>	<i>79,953</i>	<i>-15.2</i>
<i>Gori</i>	<i>No.</i>	<i>82,801</i>	<i>82,193</i>	<i>70,488</i>	<i>-14.2</i>
<i>Acque</i>	<i>No.</i>	<i>228,485</i>	<i>254,297</i>	<i>330,569</i>	<i>30.0</i>
<i>Publiacqua</i>	<i>No.</i>	<i>209,334</i>	<i>189,508</i>	<i>192,653</i>	<i>1.7</i>
<i>Acquedotto del Fiora</i>	<i>No.</i>	<i>61,001</i>	<i>65,007</i>	<i>87,079</i>	<i>34.0</i>
<i>Umbra Acque</i>	<i>No.</i>	<i>94,942</i>	<i>79,876</i>	<i>80,257</i>	<i>0.5</i>
<b>Group total analytical checks on waste water (91)</b>	<b>No.</b>	<b>351,205</b>	<b>358,320</b>	<b>412,461</b>	<b>15.1</b>
<i>Acea Ato 2</i>	<i>No.</i>	<i>98,150</i>	<i>95,527</i>	<i>122,231</i>	<i>28.0</i>
<i>Acea Ato 5</i>	<i>No.</i>	<i>28,383</i>	<i>17,786</i>	<i>23,816</i>	<i>33.9</i>
<i>Gori</i>	<i>No.</i>	<i>15,979</i>	<i>14,986</i>	<i>9,821</i>	<i>-34.5</i>
<i>Acque</i>	<i>No.</i>	<i>103,239</i>	<i>105,076</i>	<i>125,546</i>	<i>19.5</i>
<i>Publiacqua</i>	<i>No.</i>	<i>33,497</i>	<i>34,405</i>	<i>37,664</i>	<i>9.5</i>
<i>Acquedotto del Fiora</i>	<i>No.</i>	<i>31,699</i>	<i>42,902</i>	<i>48,259</i>	<i>12.5</i>
<i>Umbra Acque</i>	<i>No.</i>	<i>40,258</i>	<i>47,638</i>	<i>45,124</i>	<i>-5.3</i>

(\*) the number includes the controls carried out independently by each Company, and those carried out by LaboratoRI in-house.



## The resources used - Energy

The figures of the resources used refer to Acea Produzione (AP) (100% Acea SpA), A.R.I.A. (100% Acea SpA) and Acea Distribuzione (100% Acea SpA).

<b>GENERATION, TRANSPORT AND SALE OF ELECTRICITY, HEAT AND PUBLIC LIGHTING</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Natural gas</b>					
<b>Electricity and heat generation (92) = (93+94)</b>	<b>Nm<sup>3</sup> x 1,000</b>	<b>48,217</b>	<b>15,377</b>	<b>14,408</b>	<b>-6.3</b>
<b>Natural gas for thermoelectric and heat production AP (93)</b>	<b>Nm<sup>3</sup> x 1,000</b>	<b>42,837</b>	<b>12,664</b>	<b>11,352</b>	<b>-10.4</b>
<i>Tor di Valle reserve boilers - for district heating</i>	<i>Nm<sup>3</sup> x 1,000</i>	<i>2,291</i>	<i>7,419</i>	<i>7,615</i>	<i>2.6</i>
<i>Tor di Valle co-generation plant</i>	<i>Nm<sup>3</sup> x 1,000</i>	<i>3,873</i>	<i>2,956</i>	<i>3,328</i>	<i>12.6</i>
<i>Tor di Valle combined cycle</i>	<i>Nm<sup>3</sup> x 1,000</i>	<i>36,673</i>	<i>2,289</i>	<i>408</i>	<i>-82.2</i>
<b>Waste to energy (94)</b>	<b>Nm<sup>3</sup> x 1,000</b>	<b>5,380</b>	<b>2,713</b>	<b>3,056</b>	<b>12.6</b>
<i>San Vittore del Lazio waste-to-energy plant</i>	<i>Nm<sup>3</sup> x 1,000</i>	<i>2,051</i>	<i>2,713</i>	<i>3,056</i>	<i>12.6</i>
<i>Terni waste-to-energy plant (*)</i>	<i>Nm<sup>3</sup> x 1,000</i>	<i>3,329</i>	<i>n. a.</i>	<i>n. a.</i>	<i>-</i>
<b>Gas oil for thermoelectric generation</b>					
Montemartini Plant (95)	l x 1,000	1,097	1,815	758	-58.2
<b>Waste derived fuel (WDF) burnt</b>					
San Vittore del Lazio waste-to-energy plant (96)	t x 1,000	92.799	158.451	218.256	37.7
<b>Pulper from paper industry waste burnt</b>					
Impianto di termovalorizzazione di Terni (97) (*)	t x 1,000	54.925	n. a.	n. a.	-
<b>Water</b>					
<b>Cooling of thermoelectric plants AP (98) = (147)</b>	<b>Mm<sup>3</sup></b>	<b>34.70</b>	<b>6.69</b>	<b>0.80</b>	<b>-88.0</b>
<b>Offtake for hydroelectric production (99)</b>	<b>Mm<sup>3</sup></b>	<b>4,381.64</b>	<b>3,400.50</b>	<b>2,740.50</b>	<b>-19.4</b>
<b>Process water (100)</b>	<b>Mm<sup>3</sup></b>	<b>0.1392</b>	<b>0.1549</b>	<b>0.1380</b>	<b>-10.9</b>
<b>Domestic/sanitary uses (101)</b>	<b>Mm<sup>3</sup></b>	<b>0.2198</b>	<b>0.2609</b>	<b>0.3776</b>	<b>44.7</b>
<b>Sundry materials</b>					
<b>Dielectric mineral oil (102)</b>	<b>t</b>	<b>6.0</b>	<b>28.0</b>	<b>24.2</b>	<b>-13.6</b>
<b>SF<sub>6</sub> (103)</b>	<b>t</b>	<b>0.52</b>	<b>0.62</b>	<b>0.44</b>	<b>-29</b>
<b>Replacement/recovery refrigerating fluids (HCFC type) (104)</b>	<b>t</b>	<b>0.05</b>	<b>0.22</b>	<b>0.02</b>	<b>-90.9</b>
<b>Sundry chemicals (105)</b>	<b>kg</b>	<b>440,370</b>	<b>3,611,579</b>	<b>4,765,055</b>	<b>31.9</b>
<i>Acidity corrector</i>	<i>kg</i>	<i>2,860</i>	<i>7,200</i>	<i>2,340</i>	<i>-67.5</i>
<i>Deoxygenating substances</i>	<i>kg</i>	<i>3,080</i>	<i>660</i>	<i>0.0</i>	<i>-</i>
<i>Stabilizers and bio-dispersing agents</i>	<i>kg</i>	<i>20,200</i>	<i>2,700</i>	<i>1,300</i>	<i>-51.9</i>
<i>Sodium chloride</i>	<i>kg</i>	<i>80,000</i>	<i>76,500</i>	<i>78,000</i>	<i>2.0</i>
<i>Caustic soda</i>	<i>kg</i>	<i>119,630</i>	<i>109,080</i>	<i>71,990</i>	<i>-34.0</i>
<i>Sodium hypochlorite</i>	<i>kg</i>	<i>79,020</i>	<i>4,800</i>	<i>3,390</i>	<i>-29.4</i>
<i>Sodium bicarbonate</i>	<i>kg</i>	<i>0</i>	<i>2,910,380</i>	<i>3,982,720</i>	<i>36.8</i>
<i>Hydrochloric acid</i>	<i>kg</i>	<i>135,580</i>	<i>119,320</i>	<i>68,675</i>	<i>-42.4</i>
<i>Ammoniacal solution</i>	<i>kg</i>	<i>n.d.</i>	<i>380.939</i>	<i>556,640</i>	<i>46.1</i>
<b>Oil and greases / lubricants</b>	<b>kg</b>	<b>6,461</b>	<b>10,576</b>	<b>4,986</b>	<b>-52.9</b>
<b>Electricity</b>					
Consumed for electricity distribution (106) = (25)	GWh	717.57	733.10	757.12	3.3
Consumed for electricity generation (107) = (1)-(2)	GWh	55.07	40.16	47.17	17.5
Consumed for offices (50% of the electricity consumed by the Parent Company) (108)	GWh	5.16	5.21	5.20	-0.2
Other internal uses (109)	GWh	30.55	27.90	30.61	9.7
<b>Total (110) = (106+107+108+109)</b>	<b>GWh</b>	<b>808.35</b>	<b>806.37</b>	<b>840.10</b>	<b>4.2</b>
<b>Public lighting</b>					
<b>Consumption for public lighting (111)</b>	<b>GWh</b>	<b>157.75</b>	<b>161.66</b>	<b>162.16</b>	<b>0.3</b>

(\*) Terni plant was shutdown for revamping work from August 2010.

## The resources used - Environment

The figures of the resources used refer to Kyklos and Solemme both of Aquaser Srl (100% Acea SpA).

<b>PRODUCTION OF COMPOST</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Sludges</b>	<b>t</b>	<b>7,554.72</b>	<b>14,369.46</b>	<b>16,249.88</b>	<b>13.1</b>
<i>Kyklos</i>	<i>t</i>	<i>4,291.52</i>	<i>11,817.80</i>	<i>12,151.68</i>	<i>2.8</i>
<i>Solemme</i>	<i>t</i>	<i>3,263.20</i>	<i>2,551.66</i>	<i>4,098.20</i>	<i>60.6</i>
<b>Green matter</b>	<b>t</b>	<b>10,649.70</b>	<b>7,696.28</b>	<b>6,236.96</b>	<b>-19.0</b>
<i>Kyklos</i>	<i>t</i>	<i>6,658.96</i>	<i>5,468.26</i>	<i>4,522.86</i>	<i>-17.3</i>
<i>Solemme</i>	<i>t</i>	<i>3,990.74</i>	<i>2,228.02</i>	<i>1,714.10</i>	<i>-23.1</i>
<b>Organic fraction from waste collection</b>	<b>t</b>	<b>43,037.72</b>	<b>37,286.06</b>	<b>37,023.91</b>	<b>-0.7</b>
<i>Kyklos</i>	<i>t</i>	<i>43,037.72</i>	<i>37,286.06</i>	<i>37,023.91</i>	<i>-0.7</i>

## The resources used - Water

The figures of the resources used refer to the main Group water companies: Acea Ato 2, Acea Ato 5, Gori, Acque, Pubblica, Acquedotto del Fiora and Umbra Acque.

<b>COLLECTION, TRANSPORTATION AND DISTRIBUTION OF DRINKING AND NON-DRINKING WATER</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Sundry materials and natural resources</b>					
<b>Reagents for purification and disinfection (112)</b>	<b>t</b>	<b>12.222,1</b>	<b>11.213,7</b>	<b>11.585,67</b>	<b>3.3</b>
<b>Reagents used in chemical analyses (113)</b>	<b>t</b>	<b>1.30</b>	<b>1.30</b>	<b>1.7</b>	<b>30.8</b>
<b>Gas used in chemical analyses (114)</b>	<b>MNm<sup>3</sup></b>	<b>3.08</b>	<b>3.11</b>	<b>3.13</b>	<b>0.6</b>
<b>Replacement/recovery refrigerating fluids (HCFC type) (115)</b>	<b>t</b>	<b>0.05</b>	<b>0.22</b>	<b>0.02</b>	<b>-90.9</b>
<b>Electricity</b>					
Water pumping plants (116)	GWh	463.61	481.17	489.07	1.6
Offices /internal use (50% of energy consumed by the Parent Company) (117) = (108)	GWh	5.16	5.21	5.20	-0.2
Chemical laboratory (118)	GWh	1.16	1.14	1.25	9.6
<b>Total electricity consumed (119) = (116+117+118)</b>	<b>GWh</b>	<b>469.93</b>	<b>487.52</b>	<b>495.52</b>	<b>1.6</b>
<b>Drinking water</b>					
Domestic/sanitary uses (120)	Mm <sup>3</sup>	0.84	0.87	1.36	56.3
Offices (50% of drinking water consumed by Parent Company) (121)	Mm <sup>3</sup>	0.13	0.17	0.23	35.3
<b>Total drinking water consumed (122) = (120+121)</b>	<b>Mm<sup>3</sup></b>	<b>0.96</b>	<b>1.02</b>	<b>1.57</b>	<b>53.9</b>

<b>WASTE WATER TREATMENT</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Sundry materials and natural resources used</b>					
<b>Reagents used in waste water treatment (123)</b>	<b>t</b>	<b>6,544</b>	<b>8,430</b>	<b>9,897</b>	<b>17.4</b>
<i>Polyelectrolytes used to dehydrate sludge</i>	<i>t</i>	<i>1,388</i>	<i>1,692</i>	<i>1,781</i>	<i>5.3</i>
<i>Sodium hypochlorite for final disinfection</i>	<i>t</i>	<i>3,763</i>	<i>3,794</i>	<i>3,201</i>	<i>-15.6</i>
<i>Ferric chloride used to dehydrate sludge</i>	<i>t</i>	<i>233</i>	<i>571</i>	<i>1,040</i>	<i>82.1</i>
<i>Lime, Formic acid, aluminium polychloride</i>	<i>t</i>	<i>270</i>	<i>338</i>	<i>1,889</i>	<i>458.9</i>
<i>Peracetic acid</i>	<i>t</i>	<i>–</i>	<i>1,720</i>	<i>1,739</i>	<i>1.1</i>
<i>Others (anti-foaming agents, etc.)</i>	<i>t</i>	<i>890</i>	<i>315</i>	<i>248</i>	<i>-21.3</i>
<b>Mineral oil and grease (124)</b>	<b>t</b>	<b>8.83</b>	<b>2.05</b>	<b>1.1</b>	<b>-46.3</b>
<b>Electricity</b>					
<b>Sewage and purification systems (125)</b>	<b>GWh</b>	<b>299.1</b>	<b>296.3</b>	<b>297.0</b>	<b>0.2</b>

## Fuels used by the Group companies for automotive and heating purposes

The figures concerning the Vehicle Pool refer to the main Group companies: Acea Ato 2, Acea Ato 5, Acea Distribuzione, Acea Spa, Laboratori, Acea Reti e Servizi Energetici.

The figures concerning heating purposes refer to Acea SpA, Acea Ato 2, Acea Distribuzione and Acea Produzione.

<b>FUEL TYPE</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Automotive (Group Vehicle Pool)</b>					
<b>Gasoline (126)</b>	<b>litres x 1,000</b>	<b>980.8</b>	<b>639.2</b>	<b>831.6</b>	<b>30.1</b>
<b>Diesel (127)</b>	<b>litres x 1,000</b>	<b>788.8</b>	<b>566.1</b>	<b>848.3</b>	<b>49.8</b>
<b>Heating</b>					
<b>Gas oil (128)</b>	<b>litres x 1,000</b>	<b>9.4</b>	<b>6.5</b>	<b>8.7</b>	<b>33.8</b>
<b>Natural gas (129)</b>	<b>Nm<sup>3</sup> x 1,000</b>	<b>562.8</b>	<b>690.3</b>	<b>690.3</b>	<b>0.0</b>
<b>GPL (130)</b>	<b>litres x 1,000</b>	<b>18.2</b>	<b>23.2</b>	<b>24.5</b>	<b>5.6</b>

## Emissions and waste - Energy

The figures concerning emissions and waste refer to Acea Produzione (AP) (100% Acea SpA) and A.R.I.A. (100% Acea SpA).

### EMISSIONS INTO THE ATMOSPHERE

	unit of measurement	2010	2011	2012	Δ % 2012/2011
<b>CO<sub>2</sub> (131) = (132+133)</b>	<b>t</b>	<b>116.644</b>	<b>30.851</b>	<b>126.364</b>	<b>309,6</b>
Acea Produzione (132)	t	90.891	30.851	25.364	-17,8
A.R.I.A. (133)	t	25.753	n.a.	101.000	-
<b>NO<sub>x</sub> (134) = (135+136)</b>	<b>t</b>	<b>217,89</b>	<b>95,79</b>	<b>96,76</b>	<b>1,0</b>
Acea Produzione (135)	t	85,24	62,26	51,34	-17,5
A.R.I.A. (136)	t	132,65	33,53	45,42	35,5
<b>CO (137) = (138+139)</b>	<b>t</b>	<b>16,54</b>	<b>6,74</b>	<b>10,12</b>	<b>50,2</b>
Acea Produzione (138)	t	11,72	3,23	4,16	28,8
A.R.I.A. (139)	t	4,82	3,51	5,96	69,8
<b>SO<sub>2</sub> (140) = (141+142)</b>	<b>t</b>	<b>6,70</b>	<b>0,69</b>	<b>0,04</b>	<b>-94,2</b>
Acea Produzione (141)	t	0,05	0,07	0,03	-57,1
A.R.I.A. (142)	t	6,65	0,64	0,01	-98,4
<b>Dust (143) = (144+145)</b>	<b>t</b>	<b>3,04</b>	<b>0,32</b>	<b>0,05</b>	<b>-84,4</b>
Acea Produzione (144)	t	0,06	0,09	0,04	-55,6
A.R.I.A. (145)	t	2,98	0,23	0,01	-95,7

### OTHER EMISSIONS AND WASTE

	unit of measurement	2010	2011	2012	Δ % 2012/2011
<b>Waste water treated (146)</b>	<b>Mm<sup>3</sup></b>	<b>0.007</b>	<b>0.001</b>	<b>0.0001</b>	<b>-90.0</b>
<b>Cooling water returned (147) = (98)</b>	<b>Mm<sup>3</sup></b>	<b>34.695</b>	<b>6.694</b>	<b>0.803</b>	<b>-88.0</b>
<b>50 Hz electric fields</b>	<b>kV</b>		<b>Monitored</b>		
			Commitment to keep within the legal limits		
<b>50 Hz magnetic fields</b>	<b>μT</b>		<b>Monitored</b>		
			Commitment to keep within the legal limits		
<b>Noise</b>	<b>dB</b>		<b>Monitored</b>		
			Commitment to keep within the legal limits		
<b>Dispersed luminous flux</b>	<b>Mlumen</b>				
			Commitment to design the plants in order to limit to the maximum the percentage of emissions dispersed towards the sky		

### WASTE (ITALIAN LEGISLATIVE DECREE NO. 152/06)

	unit of measurement	2010	2011	2012	Δ % 2012/2011
<b>Hazardous waste excluding waste-to-energy sector and Aquaser's waste (148)</b>	<b>t</b>	<b>579.9</b>	<b>604.3</b>	<b>665.57</b>	<b>10.1</b>
Energy sector production	t	577.7	598.0	663.50	11.0
Portion deriving from activities carried out by Parent Company (*)	t	2.2	6.3	2.1	-66.7
<b>Hazardous waste of A.R.I.A. (149)</b>	<b>t</b>	<b>8,991.0</b>	<b>23,122.5</b>	<b>39,354.0</b>	<b>70.2</b>
<b>Non-hazardous waste excluding waste-to-energy sector and Aquaser's waste (150)</b>	<b>t</b>	<b>1,109.5</b>	<b>1,071.9</b>	<b>1,316.5</b>	<b>22.8</b>
Energy sector production	t	1.093.9	1.062,2	1,303.3	22.7
Portion deriving from activities carried out by Parent Company (*)	t	15.6	9.7	13.2	36.1
<b>Non-hazardous waste of A.R.I.A. (151)</b>	<b>t</b>	<b>27.818,0</b>	<b>2.814,2</b>	<b>1.684,9</b>	<b>-40.1</b>

(\*) 50% of waste produced by Parent Company.

## Emissions and waste - Environment

The figures refer to Kyklos and Solemme both of Aquaser Srl (100% Acea SpA).

<b>WASTE (ITALIAN LEGISLATIVE DECREE NO. 152/06)</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Hazardous waste of Kyklos + Solemme</b>	<b>t</b>	<b>12.2</b>	<b>1.5</b>	<b>1.6</b>	<b>8.8</b>
<b>Non-hazardous waste of Kyklos + Solemme</b>	<b>t</b>	<b>16,497.6</b>	<b>13,500.6</b>	<b>15,205.6</b>	<b>12.6</b>

## Emissions and waste - Water

The figures refer to the main water companies in the Acea Group: Acea Ato 2, Acea Ato 5, Gori, Acque, Publiacqua, Acquedotto del Fiora and Umbra Acque.

<b>ACEA ATO 2</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Specific waste from waste water treatment</b>					
<b>Treatment sludge (152)</b>	<b>t</b>	<b>126,666</b>	<b>140,880</b>	<b>136,831</b>	<b>-2,9</b>
<b>Sand and sediment from treatment (153)</b>	<b>t</b>	<b>10,184</b>	<b>10,008</b>	<b>9,332</b>	<b>-6.8</b>
<b>Waste (Italian Legislative Decree No. 152/06)</b>					
<b>Hazardous waste (154)</b>	<b>t</b>	<b>188.2</b>	<b>55.5</b>	<b>55.6</b>	<b>0.2</b>
<i>Own production in water sector</i>	<i>t</i>	<i>186.1</i>	<i>49.2</i>	<i>53.5</i>	<i>8.7</i>
<i>Portion deriving from activities carried out by Parent Company (*)</i>	<i>t</i>	<i>2.2</i>	<i>6.3</i>	<i>2.1</i>	<i>-66.7</i>
<b>Non-hazardous waste (155)</b>	<b>t</b>	<b>4,175.4</b>	<b>1,674.9</b>	<b>1,046.0</b>	<b>-37.5</b>
<i>Own production in water sector</i>	<i>t</i>	<i>3,284.3</i>	<i>1,188.3</i>	<i>325.1</i>	<i>-72.6</i>
<i>Portion deriving from activities carried out by Parent Company (*)</i>	<i>t</i>	<i>15.6</i>	<i>9.7</i>	<i>13.2</i>	<i>36.1</i>
<i>Inert material</i>	<i>t</i>	<i>875.6</i>	<i>477.0</i>	<i>707.7</i>	<i>48.4</i>
<b>Other emissions and waste</b>					
<b>Noise</b>	<b>dB</b>	<b>Monitored</b> Commitment to keep within the legal limits			
<b>Smells</b>		<b>Monitored</b> Commitment to keep within the limit of perception in areas nearby treatment plants			

(\*) 50% of waste produced by Parent Company.

<b>OTHER WATER COMPANIES (*)</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Specific waste from waste water treatment</b>					
Treatment sludge (156)	t	130,827	129,337	144,047	11.4
Sand and sediment (157)	t	7,557	6,652	6,835	2.8
<b>Waste (Italian Legislative Decree No. 152/06)</b>					
Hazardous waste (158)	t	201,0	247,9	100.6	-59.4
Non-hazardous waste (159)	t	61,084.1	48,538.4	77,426.3	59.5

(\*) 2012 waste figures are estimated. Data from previous years are annually confirmed or rectified.

## Emissions from vehicles and air-conditioning

The figures concerning the Car Pool refer to the main companies of the Group: Acea Ato 2, Acea Ato 5, Acea Distribuzione, Acea Spa, Laboratori, Acea Reti e Servizi Energetici.

The figures concerning heating purposes refer to Acea SpA, Acea Ato 2, Acea Distribuzione and Acea Produzione.

<b>GROUP COMPANIES</b>	<b>unit of measurement</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Δ % 2012/2011</b>
<b>Vehicles</b>					
CO <sub>2</sub> (160)	t	4,871	2,699	3,993	47.9
NO <sub>x</sub> (161)	t	8.4	4.8	7.9	64.6
CO (162)	t	50.8	28.0	39.5	41.1
SO <sub>2</sub> (163)	t	n.d.	n.d.	n.d.	-
<b>Heating</b>					
CO <sub>2</sub> (164)	t	1,425	1,758	1,766	0.5

# Environmental sustainability performance – Energy

Key environmental performance indicators (Key Performance Indicators).

INDICATOR	unit of measurement	2010	2011	2012
<b>ENERGY USED IN PROCESSES</b>				
A Consumption for electricity distribution	TJoules (GWh)	1,491.1 (414.2)	1,692.4 (470.1)	1,377.4 (382.6)
B Consumption for electricity production (item 107)	TJoules (GWh)	198.4 (55.1)	144.7 (40.2)	169.8 (47.17)
C Heat loss on district heating network (item 20)	TJoules (GWh)	77.8 (21.6)	59.0 (16.4)	41.8 (11.6)
D Consumption for public lighting (item 111)	TJoules (GWh)	567.9 (157.7)	582.0 (161.7)	583.9 (162.2)
E Water distribution (item 119 – 117)	TJoules (GWh)	1,673.3 (464.8)	1,736.3 (482.3)	1,765.1 (490.3)
F Waste water treatment (item 125)	TJoules (GWh)	1,086.84 (301.9)	1,066.7 (296.3)	1,069.2 (297.0)
G Electricity for offices (item 108 + 117)	TJoules (GWh)	37.2 (10.3)	37.4 (10.4)	37.4 (10.4)
H Consumption for office heating	TJoules (GWh)	20.1 (5.6)	24.5 (6.8)	24.6 (6.8)
I Vehicles (item 126 + 127)	TJoules (GWh)	59.3 (16.5)	40.4 (11.2)	56.5 (15.7)
<b>Indirect consumption + consumption from vehicles + heating</b>	<b>TJoules (GWh)</b>	<b>5,211.9 (1,447.7)</b>	<b>5,383.4 (1,495.4)</b>	<b>5,125.6 (1,423.8)</b>
L - Energy losses when converting from primary sources to electricity	TJoules (GWh)	2,508.1 (696.7)	2,237.15 (621.43)	2,884.6 (801.3)
<b>Total energy use (sum A : L)</b>	<b>TJoules (GWh)</b>	<b>7,720.0 (2,144.4)</b>	<b>7,620.5 (2,116.8)</b>	<b>8,010.1 (2,225.1)</b>
<b>EMISSIONS, EFFLUENT, AND WASTE</b>				
<b>Greenhouse gas emissions (CO<sub>2</sub>) (item 131) + (item 160) + (item 164)</b>	<b>t</b>	<b>122,940</b>	<b>35,308</b>	<b>132,123</b>
<b>Emissions of SO<sub>2</sub>, NO<sub>x</sub> and other significant gases by type</b>				
<b>NO<sub>x</sub> (item 134) + (item 161)</b>	<b>t</b>	<b>226.30</b>	<b>100.59</b>	<b>104.66</b>
<b>CO (item 137) + (item 162)</b>	<b>t</b>	<b>67.34</b>	<b>34.73</b>	<b>49.62</b>
<b>SO<sub>2</sub> (item 140) + (item 163)</b>	<b>t</b>	<b>6.70</b>	<b>0.71</b>	<b>0.04</b>
<b>Acea Produzione emission/production indicators (*)</b>				
<b>NO<sub>x</sub>/thermoelectric production</b>	<b>g/kWh</b>	<b>0.48</b>	<b>2.78</b>	<b>n.a</b>
<b>CO/thermoelectric production</b>	<b>g/kWh</b>	<b>0.07</b>	<b>0.14</b>	<b>n.a</b>
<b>CO<sub>2</sub>/thermoelectric production</b>	<b>g/kWh</b>	<b>507</b>	<b>1,375</b>	<b>n.a</b>
<b>CO<sub>2</sub>/total gross production</b>	<b>g/kWh</b>	<b>134</b>	<b>90</b>	<b>n.a</b>
<b>SO<sub>2</sub>/thermoelectric production</b>	<b>g/kWh</b>	<b>0.00028</b>	<b>0.00312</b>	<b>n.a</b>
<b>Indicatori di emissione/produzione Acea (Acea Produzione e A.R.I.A.)</b>				
<b>NO<sub>x</sub>/thermoelectric production</b>	<b>g/kWh</b>	<b>0.87</b>	<b>0.99</b>	<b>0.80</b>
<b>CO<sub>2</sub>/thermoelectric production</b>	<b>g/kWh</b>	<b>333</b>	<b>180</b>	<b>548</b>
<b>CO<sub>2</sub>/total gross production</b>	<b>g/kWh</b>	<b>141.8</b>	<b>56.7</b>	<b>193.9</b>
<b>SO<sub>2</sub>/thermoelectric production</b>	<b>g/kWh</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

(\*) having registered a very low level of thermoelectric production in 2012 at Tor Di Valle combined cycle plant, the emission indicators are not sufficiently representative.

INDICATOR	unit of measurement	2010	2011	2012
<b>PRODUCTS AND SERVICES: ELECTRICITY</b>				
<b>Electricity production process efficiency (solely Acea Produzione figures) (*)</b>				
<b>Gross average efficiency of thermoelectric production</b> (calculation 1)	%	<b>40.8</b>	<b>30.8</b>	<b>26.3</b>
Tor di Valle plant (combined cycle)	%	42.8	40.69	25.2
Tor di Valle plant (co-generation – solely electricity efficiency)	%	25.3	25.9	26.5
Montemartini plant	%	25.9	26.1	26.0
<b>Gross average efficiency of thermoelectric production including recovered thermal energy</b> (calculation 2)	%	<b>43.9</b>	<b>46.1</b>	<b>55.3</b>
<b>Gross average efficiency of hydroelectric production</b> (calculation 3)	%	<b>84.8</b>	<b>84.3</b>	<b>82.7</b>
<b>Gross average efficiency of total production</b> (calculation 4)	%	<b>73.2</b>	<b>80.8</b>	<b>80.8</b>
<b>Gross average efficiency of total production including recovered heat</b> (calculation 5)	%	<b>84.1</b>	<b>82.9</b>	<b>81.8</b>
<b>Electricity generation process efficiency – Waste to energy plants</b>				
<b>San Vittore del Lazio plant</b>				
Gross efficiency of WTE conversion in electricity (calculation 6)	kWh /kg CDR	0.86	0.94	1.00
Electric net efficiency (calculation 7)	%	20.7	22.6	24.0
<b>Terni plant</b>				
Gross efficiency of Pulper conversion in electricity (calculation 8)	kWh /kg pulper	0.83	n.a.	n.a.
Electric net efficiency (calculation 9)	%	17.4	n.a.	n.a.
<b>Electricity generation process efficiency – photovoltaic plants</b>				
<b>Average efficiency of photovoltaic units</b>	%	<b>n.d.</b>	<b>14.0</b>	<b>14.0</b>
<b>Other indicators (surroundings, public lighting, controls, water leaks)</b>				
<b>Specific production of waste</b>	<b>g/kWh</b>	<b>0.40</b>	<b>0.46</b>	<b>0.58</b>
<b>Protection of the surrounding areas</b> (total length of HV lines in cables / length of overhead HV lines) x 100	%	<b>64.78</b>	<b>64.78</b>	<b>64.78</b>
<b>Public lighting flux efficiency</b> (item 31) / (item 111)	<b>Lumen/kWh</b>	<b>18.5</b>	<b>18.9</b>	<b>19.4</b>
<b>Average efficiency of installed lamps</b> (item 31 / wattage)	<b>Lumen/W</b>	<b>78.6</b> (37,200 kW)	<b>79.8</b> (38,300 kW)	<b>80.5</b> (39,000 kW)
<b>Specific consumption per lighting unit</b> (item 111/No. of lighting units)	<b>kWh/lighting unit</b> (No. lighting units x year)	<b>899.6</b> (175,352)	<b>888.3</b> (181,991)	<b>870.7</b> (186,238)
<b>No. of operating and laboratory checks /GWh net electricity sold</b> (item 32) / (item 29)	<b>n./GWh</b>	<b>0.09</b>	<b>0.09</b>	<b>0.14</b>
<b>Total electricity losses</b> (item 25) / (item 24)	<b>% energy requested</b>	<b>6.0</b>	<b>6.2</b>	<b>6.4</b>
- internal consumption				
- initial transformation				
- transport				
- technical and commercial				

(\*) The thermoelectricity generation efficiencies, calculated using computation as described before the explanatory notes at the end of the document, are strongly affected by the low level of production recorded in 2012 at the combined cycle power plant of Tor di Valle. Such calculations therefore have to be evaluated cautiously because not complying with typical values of the plant technologies used.



# Environmental sustainability performance – Water

Key environmental performance indicators (Key Performance Indicators).

INDICATOR	unit of measurement	2010	2011	2012
<b>Carbon footprint</b>				
<b>WATER SERVICE IN ITALY</b>				
Total CO <sub>2</sub> /m <sup>3</sup> of water supplied (integrated water service) (*)	kgCO <sub>2</sub> /m <sup>3</sup>	0.60	0.61	0.63
CO <sub>2</sub> /m <sup>3</sup> of water supplied (distribution process)	kgCO <sub>2</sub> /m <sup>3</sup>	0.36	0.38	0.39
CO <sub>2</sub> /m <sup>3</sup> of treated water (treatment process)	kgCO <sub>2</sub> /m <sup>3</sup>	0.17	0.16	0.18
<b>DRINKING WATER SERVICE</b>				
<b>(Assessment parameters as per Italian Ministerial Decree No. 99/97)</b>				
<b>Acea Ato 2 network</b>				
Primary efficiency (R1): (item 52) / (item 51)	%	60.2	60.1	58.04
Efficiency at consumption level (R2): (item 52 + A 11) / (item 51) A11 = 2,2% of (item 52)	%	61.5	61.4	58.1
Net efficiency (R3): (item 52 + A 11 + A 12) / (item 51) A12 = 2,0% of (item 51)	%	63.9	63.8	58.2
<b>"Historic" network (Rome + Fiumicino)</b>				
Primary efficiency (R1): "historic" network (item 41) / (item 40)	%	63.9	63.8	63.0
Efficiency at consumption level (R2): (item 41 + A 11) / (item 40) A11 = 2,0% of (item 41)	%	65.2	65.1	63.2
Net efficiency (R3): (item 41 + A 11 + A 12) / (item 40) A12 = around 2,0% of (item 40)	%	67.2	67.1	63.3
<b>PRODUCT: DRINKING WATER</b>				
<b>Acea Ato 2 network</b>				
Linear index of overall drinking water losses (as per MD No. 99/97) (item 53) / (km network) (**)	Mm <sup>3</sup> /1,000 km	20.8 (10,367.1 km)	20.7 (10,444.9 km)	21.8 (10,508.5 km)
Linear index of effective distribution losses (as per MD No. 99/97) Ato 2 network (item 54)/(km network) (**)	Mm <sup>3</sup> /1,000 km	15.5 (10,367.1 km)	15.4 (10,444.9 km)	16.9 (10,508.5 km)
Specific electricity consumption for water network (Ato 2 energy network consumption)/(item 51)	kWh/m <sup>3</sup>	0.204	0.221	0.259
No. of checks on drinking water distributed (item 91- drinking water Ato 2)/(item 51)	n./Mm <sup>3</sup>	554	564	545
Drinking water additive process index (item 112 - only Acea Ato 2 network) / (item 51)	g/m <sup>3</sup>	1.9	1.9	2.8
<b>"Historic" network (Rome + Fiumicino)</b>				
Linear index of overall drinking water losses (as per MD No. 99/97: A 17 / km network) (item 42) / (km network) (**)	Mm <sup>3</sup> /1,000 km	21.7 (7,098.5 km)	21.7 (7,161.7 km)	22.1 (7,207.3 km)
Indice lineare delle perdite reali acqua potabile (as per MD No. 99/97: A15 / km network) (item 43) / (km network) (**)	Mm <sup>3</sup> /1,000 km	16.4 (7,098.5 km)	16.4 (7,161.7 km)	16.9 (7,207.3 km)

INDICATOR	unit of measurement	2010	2011	2012
<b>SERVICE: WASTE WATER TREATMENT</b>				
Total sludge disposed of (152)	t	126,666	140,880	136,831
Sand and sediment removed (153)	t	10,184	10,008	9,332
COD removed	t	126,029	149,055	133,210
Total Suspended Solids (TSS) removed	t	90,831	86,202	69,657
Additive process index	g/m <sup>3</sup>	7.60	9.81	10.44
Specific electricity consumption for treatment process	kWh/m <sup>3</sup>	0.245	0.237	0.273
Intensity of checks on waste water	n./Mm <sup>3</sup>	148.8	140.5	195.9
<b>COMPLIANCE</b>				
Penalty paid for non-compliance with environmental regulations/agreements	euro	228,406	473,731	544,132

(\*) "Scope 2" emissions, arising from electricity consumption of the Group.

(\*\*) These are the kilometres of distribution and transportation network.



## Description of the calculations used to determine electricity generation efficiency

### CALCULATION 1

$$\text{efficiency (thermoelectric)} = \frac{\text{Energy}_{\text{thermoelectric}} \text{ (kWh)}}{\text{Energy}_{\text{diesel oil}} \text{ (kWh)} + \text{Energy}_{\text{natural gas}} \text{ (kWh)}}$$

where:

$\text{Energy}_{\text{thermoelectric}}$  = gross electricity produced using thermoelectric cycle

$$\text{Energy}_{\text{diesel oil}} \text{ (kWh)} = \frac{\text{diesel oil (l)} \cdot 0.835 \cdot \text{NCV}_d \text{ (kcal/kg)}}{860 \text{ (kcal/kWh)}} \quad \text{Energy equivalent to diesel oil consumed (95)}$$

$$\text{Energy}_{\text{natural gas}} \text{ (kWh)} = \frac{\text{natural gas (Nm}^3\text{)} \cdot \text{NCV}_m \text{ (kcal/Nm}^3\text{)}}{860 \text{ (kcal/kWh)}} \quad \text{Energy equivalent to natural gas consumed (93)}$$

$\text{NCV}_m$  = 8,500 kcal/Nm<sup>3</sup> (net calorific value of natural gas)

$\text{NCV}_d$  = 10,000 kcal/kg (net calorific value of diesel oil)

860 = energy conversion factor from kcal to kWh

0.835 = specific weight of diesel oil (kg/l)

NB: between 2010 - 2012, the calorific values used for Acea Produzione were the effective ones taken from the gaugings of the natural gas and diesel oil suppliers

### CALCULATION 2

$$\text{efficiency (thermoelectric)} = \frac{\text{Energy}_{\text{thermoelectric}} \text{ (kWh)} + \text{Energy}_{\text{thermal}} \text{ (kWh)}}{\text{Energy}_{\text{diesel oil}} \text{ (kWh)} + \text{Energy}_{\text{natural gas}} \text{ (kWh)}}$$

where:

$\text{Energy}_{\text{thermal}}$  = Gross thermal energy produced

$\text{Energy}_{\text{thermoelectric}}$  = Gross thermoelectric energy produced

$$\text{Energy}_{\text{diesel oil}} \text{ (kWh)} = \frac{\text{diesel oil (l)} \cdot 0.835 \cdot \text{NCV}_d \text{ (kcal/kg)}}{860 \text{ (kcal/kWh)}} \quad \text{Energy equivalent to diesel oil consumed (95)}$$

$$\text{Energy}_{\text{natural gas}} \text{ (kWh)} = \frac{\text{natural gas (Nm}^3\text{)} \cdot \text{NCV}_n \text{ (kcal/Nm}^3\text{)}}{860 \text{ (kcal/kWh)}} \quad \text{Energy equivalent to natural gas consumed (93)}$$

$\text{NCV}_n$  = 8,500 kcal/Nm<sup>3</sup> (net calorific value of natural gas)

$\text{NCV}_d$  = 10,000 kcal/kg (net calorific value of diesel oil)

860 = energy conversion factor from kcal to kWh

0.835 = specific weight of diesel oil (kg/l)

NB: the calorific values used for Acea Produzione were the effective ones taken from the gaugings of the gas and diesel oil suppliers

### CALCULATION 3

$$\text{efficiency (hydroelectric)} = \frac{\text{Energy}_{\text{hydroelectric}} (\text{MWh}) \cdot 3.6 \cdot 10^9}{[m(\text{kg}) \cdot 9.8(\text{m/s}^2) \cdot h(\text{m})] (\text{joule})}$$

where:

- $3.6 \times 10^9$  = water energy conversion factor from Joules to MWh  
m = offtake water for hydroelectric production  
9.8 = gravitation acceleration at sea level  
h = height of water drop (free surface reservoir– turbine)  
Energy<sub>hydroelectric</sub> = energy produced in the hydroelectric cycle

### CALCULATION 4

$$\frac{(E_i)}{(E_i + E_t)} \cdot \epsilon_i + \frac{(E_t)}{(E_i + E_t)} \cdot \epsilon_t = \epsilon_{\text{average}}$$

where:

- $E_i$  = total hydroelectricity produced  
 $E_t$  = total thermoelectricity produced  
 $\epsilon_i$  = hydroelectric efficiency  
 $\epsilon_t$  = thermoelectric efficiency  
 $\epsilon_{\text{average}}$  = average production efficiency

### CALCULATION 5

$$\frac{(E_i)}{(E_i + E_t)} \cdot \epsilon_i + \frac{(E_t)}{(E_i + E_t)} \cdot \epsilon_t = \epsilon_{\text{average}}$$

where:

- $E_i$  = total hydroelectricity produced  
 $E_t$  = sum of total energy (thermoelectric and thermal) produced  
 $\epsilon_i$  = hydroelectric efficiency  
 $\epsilon_t$  = efficiency (thermoelectric + thermal)  
 $\epsilon_{\text{average}}$  = average production efficiency

### CALCULATION 6

$$\text{recovery efficiency} = \left( \frac{\text{kWh}}{\text{kg}} \right) = \frac{\text{Gross electricity produced (kWh)}}{\text{CDR (kg)}}$$

$\text{Energy}_{\text{gross electricity produced}} (\text{kWh}) = \text{Gross electricity produced at S. Vittore} = (\text{item 12})$

### CALCULATION 7

$$\text{electric efficiency (\%)} = \frac{\text{Net electricity produced (kWh)}}{\text{WDF internal energy (kWh)} + \text{Natural gas internal energy (kWh)}}$$

where:

*Net electricity produced at S. Vittore (item 12 - internal consumptions)*

$$\text{Natural gas internal energy} = \frac{\text{Natural gas Sm}^3 \cdot \text{NCV}_n (\text{kcal/Sm}^3)}{860 (\text{kcal/kWh})}$$

$\text{NCV}_n$  = about 8,500 kCal/Sm<sup>3</sup> (net calorific value of natural gas)  
860 = energy conversion factor from kcal to kWh

$$\text{WDF internal energy (kWh)} = \frac{\text{WDF (kg)} \cdot \text{NCV}_w (\text{kcal/kg})}{860 (\text{kcal/kWh})}$$

$\text{NCV}_w$  = 3,583 kCal/kg (15,000 kJ/kg) – WDF average net calorific value  
860 = energy conversion factor from kCal to kWh

**CALCULATION 8**

$$\text{recovery efficiency} = \left( \frac{\text{kWh}}{\text{kg}} \right) = \frac{\text{Gross electricity produced (kWh) at Terni}}{\text{pulper (kg)}}$$

Gross electricity produced at Terni (kWh) = (item 13)

**CALCULATION 9**

$$\text{electric efficiency (\%)} = \frac{\text{Net electricity produced (kWh)}}{\text{pulper internal energy (kWh) + Natural gas internal energy (kWh)}}$$

where:

Net electricity produced at Terni (item 13 – internal consumptions)

$$\text{Natural gas internal energy} = \frac{\text{Natural gas (Sm}^3\text{) x NCV}_n\text{(kCal/Sm}^3\text{)}}{860 \text{ (kcal/kWh)}}$$

$NCV_n$  = about 8,500 kCal/Sm<sup>3</sup> (net calorific value of natural gas)  
860 = energy conversion factor from kCal to kWh

$$\text{Pulper internal energy (kWh)} = \frac{\text{pulper (kg) • NCV}_p \text{ (kcal/kg)}}{860 \text{ (kcal/kWh)}}$$

$NCV_p$  = 3,635 kCal/kg 15,216 kJ/kg - Pulper average net calorific value (year 2010)  
860 = energy conversion factor from kCal to kWh

## Explanatory notes to the *Environmental accounts*

The figures presented in the *Environmental Accounts* have been produced and audited by the pertinent divisions.

Responsibility for the correct formation of the figures has been maintained within the individual production units, pending the implementation of a standardized Environmental Management System, capable of coding the procedures for obtaining a regular flow of numeric information.

Before final acceptance, however, the official figures have been subject to a validation process which anticipated four control procedures:

1. comparison with the historical data in order to highlight and justify any significant discrepancies;
2. repetition at least twice of the acquisition process;
3. feedback to the divisions responsible for the final validation of the figures;
4. sample audit carried out by an external specialised firm.

The figures have been divided up into three categories:

- estimated;
- calculated;
- measured.

In the event of estimated data, the greatest of attention was paid to checking the reasonableness of the underlying criteria used, with the aim of resorting as little as possible, in the future, to this form of measurement of the environmental parameters.

When the figures are the result of calculation, the algorithm used has been concisely specified in order to permit the full comprehension of the mathematical result.

When, lastly, the data has been measured, an estimate of the uncertainty to be associated with the number is provided.

## Additional information on figures provided in the *Environmental accounts*

### ENERGY SECTOR PRODUCTS

ITEM NO.	EXPLANATION – COMMENT
1	Total gross energy produced by the Group. This figure is calculated.
2	Electricity produced net of losses due to just the production phase. This figure is calculated.
3 = 4+5	Total electricity produced by the Acea Produzione plants, gross of losses. It includes thermoelectric and hydroelectric energy. The production increase registered at the Salisano plant is due to return to operation after repowering work. The figure is measured with uncertainty of less than $\pm 0.5\%$ .
6 = 7+8+9	Electricity losses attributable to just the production phase of the Acea Production plants. Includes: internal consumption (thermo and hydro) and initial transformation losses. The figure is measured with uncertainty of less than $\pm 0.5\%$ .
10	Electricity produced by the Acea Produzione plants, net of losses. This figure is calculated.
11 = 12+13	Electricity produced by the waste-to-energy plants: San Vittore del Lazio plant and Terni plant belonging to A.R.I.A. Note that the fuel used by the two plants (WDR- Waste derived fuel - for San Vittore and industry pulper for the Terni plant) comprises both biodegradable organic material, therefore neutral with regard to the CO <sub>2</sub> balance, and non-biodegradable organic substances (plastic, resins, etc.). The Terni plant was stopped through all 2012 for revamping works and was reactivated at the end of December 2012.
14	Internal consumption of the two waste-to-energy plants at S. Vittore and Terni. It does not include the energy withdrawn from the network. The figure is measured with uncertainty of less than $\pm 0.5\%$ .
15	Electricity produced by the two waste-to-energy plants at S. Vittore and Terni, net of internal consumption. This figure is calculated.
16	Gross energy produced by photovoltaic plants. The figure is measured with uncertainty of less than $\pm 0.5\%$ .
17	Total losses in photovoltaic generation phase, due above all else to the Joule effect (dissipation with heating) in the equipment. Estimated figure.
18	Net photovoltaic energy made available by the generation plants. The figure is measured with uncertainty of less than 0.5%.
19	Thermal energy produced at the Tor di Valle co-generation plant, gross of losses. The item is measured with uncertainty of $\pm 2\%$ in correspondence with the delivery pipes of the boilers. The thermal energy is produced by the co-generation plant, comprising a turbogas unit and superheated water regeneration generator powered by the hot exhaust fumes of the turbogas units, with the possibility of integration via Galleri-type auxiliary boilers.
20	Thermal energy losses of the district heating system, due to: heat dispersion, losses on the network, technical emissions due to maintenance work, thermal recoveries of the heat accumulation systems. The item is calculated as the difference between the thermal energy produced and that effectively supplied to the customers (billed).
21	Net thermal energy supplied to end customers. The item, calculated, was obtained from the reading of the billed consumption.
22	Electricity supplied by Acea Produzione to Acea Energy SpA involving infra-Group exchange. The item is marginal due to the decision made by the Acea Group to sell the electricity produced on the electricity exchange or by means of bilateral agreements.



## ENERGY SECTOR PRODUCTS

ITEM NO.	EXPLANATION – COMMENT
23	<p>Net electricity acquired on the market by:</p> <ul style="list-style-type: none"><li>• Sole Buyer for 3,327.25 GWh</li><li>• Imports for 433.56 GWh</li><li>• Market for 8,100.28 GWh.</li></ul> <p>In 2012 the "Colari" plant" of Malagrotta (waste Gasifier) didn't work. In 2011 had produced and marketed in the Acea distribution network 20.14 GWh. The item is measured with uncertainty of <math>\pm 0.5\%</math>.</p>
24	<p>Energy requested on the Rome and Formello distribution network by all the connected customers (free + protected). This item is estimated.</p>
25	<p>Electricity losses which take place during the distribution and transmission phase. These are attributable to: transformation and transport losses, fraud and erroneous measurements. This item is estimated.</p>
26	<p>Internal uses of electricity for the performance of distribution activities. The 2012 item is estimated.</p>
27	<p>Electricity transferred to third parties. This involves exchanges of energy between distribution companies. The item is measured with uncertainty of <math>\pm 0.5\%</math>.</p>
28	<p>Total net electricity conveyed to customers in free market connected to the Rome and Formello electricity distribution network. This includes both the portion of electricity sold by Acea Energy and that sold by other operators active on the free market. The item is measured with uncertainty of <math>\pm 5\%</math>. (CEI 13-4 standard).The considerable increase in the item over the last few years is the direct consequence of the process for deregulating the electricity market underway in Italy since 1999 (Italian Legislative Decree No. 79/99).</p>
29	<p>Net electricity sold to customers in enhanced protection market. The downwards trend is the consequence of the progressive changeover of protected customers to the deregulated market, in other words it is the direct consequence of the process for de-regulating the electricity market underway in Italy since 1999 (Italian Legislative Decree No. 79/99). The item is estimated on the basis of the readings of billed consumption.</p>
30	<p>Net electricity sold by Acea on the free market at Italian national level. The item is measured with uncertainty of <math>\pm 5\%</math>. (CEI 13-4 standard). Includes the sold on Rome and Formello (item 28). Total sales on the free and the protected market is obtained by summing the items (29) and (30). The figure is estimated.</p>
31	<p>Lighting flux supplied by the public lighting system in Rome. The item, calculated, represents the product between the number of lamps installed and the related value of "rated" lighting flux. As a result of the overestimation introduced by:</p> <ol style="list-style-type: none"><li>1. abatement of efficiency due to the ageing of the lamps;</li><li>2. shutdown due to faults;</li><li>3. shutdown due to maintenance;</li></ol> <p>it is believed that a more realistic supplied lighting flux figure equates to the item provided, decreased by 20%.</p>
32	<p>Total number of gaugings/checks carried out benefiting the energy area. The item is calculated as the sum of the individual calculations made in 2012 by the pertinent laboratories.</p>
32A	<p>High Quality Compost produced by Aquaser plants: Kyklos (Latina) and Solemme (Grosseto). The item is measured with an uncertainty of <math>\pm 1\%</math>.</p>

## WATER SECTOR PRODUCTS

ITEM NO.	EXPLANATION – COMMENT
33	Total drinking water withdrawn from the environment or from other systems. This is the sum of the water withdrawn by the Group companies: Acea Ato 2 (Rome), Acea Ato 5 (Frosinone); Gori (Sarnese Vesuviano); Acque (Pisa); Publiacqua (Florence); Acquedotto del Fiora (Grosseto); Umbra Acque (Umbria).
34	Total drinking water delivered to the distribution networks of the companies listed under item 33 net of losses due to the water supply at sources. The figure is estimated.
35	Total drinking water supplied to the respective customers of the companies listed in item 33. The figure represents estimated consumption due to the entire territories served. Includes consumptions due to users, fountains, pipe washing activities, etc. The figure is estimated.
36	Total drinking water withdrawn from the sources except the high drains, by the company Acea Ato 2 and introduced into the aqueduct system of the Rome historic network. It includes the water withdrawn from Lake Bracciano, treated. The item is measured with uncertainty of $\pm 3\%$ .
37	Total drinking water sold to Municipalities located along the route of the aqueducts, in turn retailers of the resource, who are not Acea Ato 2 customers. The item is measured and is affected by a systematic error estimated as around - 5%.
38	Drinking water introduced onto non-drinking water network. These are events which take place in the case of maintenance or extraordinary measures which make the dedicated non-drinking water resource insufficient. The item is estimated.
39	Drinking water returned to the environment / technical operating volumes with reference to the Rome "historic" distribution network (Rome + Fiumicino). This figure is calculated.
40	Total drinking water transported to the Rome "historic" distribution network (Rome + Fiumicino), net of the losses due to the water supply at sources. The item is estimated.
41	Total drinking water supplied in the Municipality of Rome on the "historic" network (Rome + Fiumicino). The figure represents estimated consumption due to the entire territory served. It includes the consumption due to users, drinking fountains, pipe washing activities, etc. The item is estimated.
42	Overall distribution losses – Rome "historic" network. This is the parameter A17 of the Italian MD No. 99/97 defined as the quantity of water lost during distribution. $A17 = A9 - (A10 + A11 + A12) = (A13 + A14 + A15 + A16)$ , where: Parameter A9 of MD 99/97 – total volume of water introduced onto the network; Parameter A10 of MD 99/97 – gauged volume of water supplied to the end user; Parameter A11 of MD 99/97 – authorized and unrecorded uses, totalling around 2% of total water supplied to end users; Parameter A12 of MD 99/97 – maintenance and cleaning, totalling around 2% of total introduced onto the network; Parameter A13 of MD 99/97 – inefficiencies, estimated at 3 million m <sup>3</sup> per year; Parameter A14 of MD 99/97 – frauds, totalling 1.0% of total water supplied to end users (item 20) x 1.0/100; Parameter A15 - volume lost in distribution (effective losses); Parameter A16 of MD 99/97 – gauging errors, totaling 10% of total water supplied to end users - (item 41) x 10.0/100; Parameter A17 of MD 99/97 – overall distribution losses.
43	Effective distribution losses - Rome "historic" network (Rome + Fiumicino). This is the parameter A15 of the Italian MD No. 99/97 and represents the nearest value to the true estimate of the volume of water lost along the distribution network for reasons linked to the state of maintenance of the assets.

## WATER SECTOR PRODUCTS

ITEM NO.	EXPLANATION – COMMENT
44	Total non-drinking water taken from the environment, gross of losses. This item is estimated.
45	Total non-drinking water supplied to Rome and Fiumicino. The item, calculated, corresponds with total water billed.
46	Total non-drinking water supplied to municipalities other than the Municipality of Rome and Fiumicino. This is a small estimated quantity.
47	Total drinking water withdrawn from the sources except the high drains, by the company Acea Ato 2 and introduced into the Central Lazio Optimum Area of Operations ATO 2 (Rome "historic" network + municipalities acquired) aqueduct system. The item is measured with uncertainty of $\pm 3\%$ .
48	Total drinking water sold to Municipalities located along the route of the aqueducts, in turn retailers of the resource, who are not Acea Ato 2 customers. The item is measured and is affected by a systematic error estimated as around - 5%.
49	Drinking water introduced onto non-drinking water network. These are events which take place in the case of maintenance or extraordinary measures which make the dedicated non-drinking water resource insufficient. This item is estimated.
50	Drinking water returned to the environment / technical operating volumes with reference to the Ato 2 distribution network (Rome and Fiumicino + municipalities acquired as of 31 December 2012). This figure is calculated.
51	Total drinking water transported to the Ato 2 distribution network (Rome and Fiumicino + municipalities acquired as of 31 December 2012). The item is gauged with uncertainty of $\pm 3\%$ . This item was estimated for 2012.
52	Total drinking water supplied (i.e. gauged at the metres, where present) to the customers connected to the Ato 2 network (Rome and Fiumicino + municipalities acquired as of 31 December 2012). The figure represents estimated consumption due to the entire territory served. It includes the consumption due to users, drinking fountains, pipe washing activities, etc.
53	Overall distribution losses – Ato 2 network (Rome and Fiumicino + municipalities acquired as of 31 December 2012). This is the parameter A17 of the Italian MD No. 99/97 defined as the quantity of water lost during distribution. See item 42 for details.
54	Effective distribution losses - Ato 2 network (Rome and Fiumicino + municipalities acquired as of 31 December 2012). This is the parameter A15 of the Italian MD No. 99/97. See item 43.
55, 56, 57	Respectively: quantity of water withdrawn from the environment, introduced onto the distribution network and supplied to its customers by Acea Ato 5 (Frosinone).
58	Overall distribution losses of Acea Ato 5 (Frosinone). This is the parameter A17 of the Italian MD No. 99/97 defined as the quantity of water lost during distribution. See item 42 for details.
59	Effective distribution losses of Acea Ato 5 (Frosinone). This is the parameter A15 of the Italian MD No. 99/97. See item 43.
60, 62, 63	Respectively: quantity of water withdrawn from the environment, introduced onto the distribution network and supplied to its customers by Gori (Sarnese Vesuviano).
61	Water withdrawn from other aqueduct systems to satisfy excess demand; if added to the water withdrawn from the environment (60), the quantity introduced onto the network is obtained (62).
64	Overall distribution losses of Gori (Sarnese Vesuviano). This is the parameter A17 of the Italian MD No. 99/97 defined as the quantity of water lost during distribution. See item 42 for details.
65	Effective distribution losses of Gori (Sarnese Vesuviano). This is the parameter A15 of the Italian MD No. 99/97. See item 43 for details.
66, 67, 68	Respectively: quantity of water withdrawn from the environment, introduced onto the distribution network and supplied to its customers by Publiacqua (Florence). 2. Estimated figures.

## WATER SECTOR PRODUCTS

ITEM NO.	EXPLANATION – COMMENT
69	Overall distribution losses of Publiacqua (Florence). This is the parameter A17 of the Italian MD No. 99/97 defined as the quantity of water lost during distribution. See item 42 for details.
70	Effective distribution losses of Publiacqua (Florence). This is the parameter A15 of the Italian MD No. 99/97. See item 43.
71, 73, 74	Respectively: quantity of water withdrawn from the environment, introduced onto the distribution network and supplied to its customers by Acque (Pisa). Estimated figures.
72	Water withdrawn from other aqueduct systems to satisfy excess demand; if added to the water withdrawn from the environment (71), the quantity introduced onto the network is obtained (73).
75	Overall distribution losses of Acque (Pisa). This is the parameter A17 of the Italian MD No. 99/97 defined as the quantity of water lost during distribution. See item 42 for details.
76	Effective distribution losses of Acque (Pisa). This is the parameter A15 of the Italian MD No. 99/97. See item 43.
77, 78, 79	Respectively: quantity of water withdrawn from the environment, introduced onto the distribution network and supplied to its customers by Acquedotto del Fiora (Grosseto). Estimated figures.
80	Overall distribution losses of Acquedotto del Fiora (Grosseto). This is the parameter A17 of the Italian MD No. 99/97 defined as the quantity of water lost during distribution. See item 42 for details.
81	Effective distribution losses of Acquedotto del Fiora (Grosseto). This is the parameter A15 of the Italian MD No. 99/97. See item 43.
82, 83, 84	Respectively: quantity of water withdrawn, introduced and supplied by Umbra Acque (Umbria). Estimated figures.
85	Overall distribution losses of Umbra Acque (Umbria). This is the parameter A17 of the Italian MD No. 99/97 defined as the quantity of water lost during distribution. See item 42 for details.
86	Effective distribution losses of Umbra Acque (Umbria). This is the parameter A15 of the Italian MD No. 99/97. See item 43.
87	Total waste water conveyed to main treatment plants of Acea Ato 2 and treated. For the remarkable change of the item if compared with 2011, see item 88, that represents the most sensitive variation. This figure is calculated.
88	Total waste water conveyed to the main treatment plants of Acea Ato 2 and treated. The reduction amount is mainly due to exchanged flowmeter re-calibration of Roma Sud, decreasing. This figure is calculated.
89	Total waste water conveyed to the treatment plants of Acea Ato 2 and treated, including the quantities treated in the minor plants of the Municipality of Rome and in those outside the Municipality of Rome. This figure is calculated.
90	Overall number of analytical controls carried out on drinking water by the Acea Group. The item includes the analysis carried out by Laboratorio and the analysis carried out independently by the companies. This figure is calculated.
91	Overall number of analytical controls carried out on waste water by the Acea Group. The item includes the analysis carried out by Laboratorio and the analysis carried out independently by the companies. This figure is calculated.

## RESOURCES USED – ENERGY SECTOR

ITEM NO.	EXPLANATION – COMMENT
92 = 93+94	Total quantity of natural gas used for the generation of electricity and heat at the Acea Produzione and A.R.I.A. production plants. The item, expressed in normal cubic metres (volume at 0°C and 1 Atm), is measured with uncertainty of $\pm 0.5\%$ . The figure is estimated.
95	Total quantity of coal used for the generation of electricity at the Acea Produzione Montemartini (turbogas) plant. This item is measured with uncertainty of $\pm 2\%$ .
96	Quantity of WDF (waste derived fuel) sent to the waste-to-energy process at the San Vittore plant in Lazio. The item is measured with uncertainty of $\pm 1\%$ .
97	Quantity of Pulper sent to the waste-to-energy process at the Terni plant. The item is measured with uncertainty of $\pm 1\%$ .
98	Total cooling water in the thermoelectric plants. This item is estimated.
99	Total water taken from surface resources and from aqueducts (Salisano hydroelectric plant) for the production of hydroelectricity. This figure is calculated.
100	Total quantity of water used in the industrial processes. The various contributions were due to: - Replenishment of the losses in the thermal cycles at the Acea Produzione plants. This is drinking water; - Replenishment of losses on the district heating network. This is drinking water; - Various uses in the San Vittore and Terni waste-to-energy plants. This figure is calculated.
101	Quantity of drinking water used by the companies included in the energy sector for civil/sanitary use. The item, calculated, refers to billed consumption.
102	This represents the total quantity of new dielectric mineral oil introduced into the production circuit (transformers, condensers, storage deposits, etc.). It includes the figure for Acea Distribuzione and Acea Produzione. This item is gauged with uncertainty of $\pm 0.5\%$ . The total quantity of dielectric mineral oil present in the electro-technical equipment of Acea Distribuzione comes to 4,586.94 t as of 31 December 2012. This item is estimated.
103	Total quantity of new gaseous insulator (SF6) added to the production circuit (armoured sub-stations). This item is gauged with uncertainty of $\pm 0.5\%$ .
104	Quantity of refrigerating fluids used during maintenance of air-conditioning equipment, when the old gas is recovered and replaced with new gas. Note that the R22 gas, still present as refrigerating fluid, can no longer be purchased (European regulation No. 2037/2000 concerning hazardous substances for the ozone stratosphere) but is still recycled (until 31 December 2014); the replenishments are made using a different gas, R422 D. The item is calculated allocating the total gases purveyed by the Parent Company in equal parts (50%) to the energy area and the water area. This item coincides with item 115.
105	Total chemicals used in the electricity and heat generation process at the plants of Acea Produzione and A.R.I.A. (waste-to-energy plants). During 2011, having introduced a change in the process for combating the fumes from the chimney emissions of San Vittore (A.R.I.A.), for the first time sodium bicarbonate was used (2,900 tons) which led to a sharp increase in quantities consumed with respect to 2010. This figure is calculated.
106	This item coincides with item 25.
107	Coincides with the difference between the items 1 and 2.
108	Electricity consumed by the processes not directly linked with the production phases (offices). The item is calculated to an extent equating to 50% of the overall electricity consumed by the Parent Company. The remaining portion of 50% is assigned to the water sector as consumption.

## RESOURCES USED – ENERGY SECTOR

ITEM NO.	EXPLANATION – COMMENT
109	Other uses of electricity in the energy sector. This figure is calculated.
110	Total electricity consumed by the product systems included in the energy sector. This figure is calculated.
111	Total electricity consumed for public lighting in the Municipality of Rome. This figure is calculated.

## RESOURCES USED – WATER SECTOR

ITEM NO.	EXPLANATION – COMMENT
112	The figure represents the sum of the consumption of reagents for drinking water and disinfection of the water in Group water companies. In detail this includes: sodium hypochlorite - used as a disinfectant upon the request of the Health Authorities -, aluminium polychloride, caustic soda and ozone. This figure is calculated.
113	Total quantity of chemical reagents used by LaboratoRI for the performance of its duties, in other words the performance of analytical checks benefiting Acea Group companies. The item is measured.
114	Total volume of pure gas for analyses used by LaboratoRI. The item is measured.
115	Quantity of refrigerating fluids used during maintenance of air-conditioning equipment, when the old gas is recovered and replaced with new gas. The item is calculated allocating the total gases purveyed by the Parent Company in equal parts (50%) to the energy area and the water area. This item coincides with item 106.
116	Electricity used for the drinking and non-drinking water pumping plants. The item is measured with uncertainty of $\pm 1\%$ .
117	Electricity consumed by the processes not directly linked with the production phases (offices). The figure, equal to item 108, is calculated to an extent equating to 50% of the total electricity consumed by the Parent Company.
118	Electricity used by LaboratoRI. It includes all the energy relating to the various fields of activities of LaboratoRI, not only the laboratory analysis activities. This item is measured with uncertainty of $\pm 0.5\%$ , with the exclusion of 2011 when consumption was estimated.
119	Total electricity consumed in the water sector. This figure is calculated.
120	Quantity of drinking water used by the companies included in the water sector for civil/sanitary use. The item, calculated, refers to billed consumption.
121	Quantity of water consumed for civil/sanitary uses within the installations not directly linked with the production phases (offices). The item is calculated to an extent equating to 50% of the overall water consumed by the Parent Company.
122	Total drinking water consumed by the companies included in the water sector. The item, calculated, refers to billed consumption.
123	Total quantity of chemicals used in the waste water treatment process. This is obtained from the sum of the consumption registered for the following substances: polyelectrolytes, sodium hypochlorite, ferric chloride, lime. This figure is calculated.
124	Total quantity of lubricant oil and grease used for the apparatus of the water sector (pumps, centrifuges, engines, etc). This figure is calculated.
125	Electricity used for the running of the waste water treatment plants and for the running of the sewage network. The item is measured with uncertainty of $\pm 1\%$ .

## FUELS USED BY THE GROUP (VEHICLE FLEET AND CONDITIONING)

ITEM NO.	EXPLANATION – COMMENT
126	Total quantity of petrol used for the Acea Group's vehicle pool. A density value of 0.735 kg/l was used to convert from volume (litres) to mass (kg). This item is measured with uncertainty of $\pm 0.5\%$ .
127	Total quantity of diesel used by Acea Group's vehicle fleet. A density value of 0.835 kg/l was used to convert from volume (litres) to mass (kg). This item is measured with uncertainty of $\pm 0.5\%$ .
128	Total quantity of gas oil used to heat Acea and Acea Ato 2 workplaces and to power generators. A density value of 0.835 kg/l was used to convert from volume (litres) to mass (kg). This item is measured with uncertainty of $\pm 0.5\%$ .
129	Total quantity of natural gas used for heating working environments. The 2012 figure was estimated equal to 2011 one, because of consumption billing difficulties from behalf of the seller.
130	Total quantity of LPG (liquid petroleum gas) used for heating working environments. A density value of 0.550 kg/l was used to convert from volume (litres) to mass (kg). This item is measured with uncertainty of $\pm 0.5\%$ .

## SPILLS AND WASTE – ENERGY SECTOR

ITEM NO.	EXPLANATION – COMMENT
131	Total quantity of carbon dioxide emitted into the atmosphere as a consequence of the generation of thermoelectric energy from fossil fuels and from the waste-to-energy treatment of WDF and pulper. This is a "physiological" product deriving from combustion. The item is calculated as the sum of the items 132 and 133.
132	Quantity of carbon dioxide emitted into the atmosphere by the Acea Produzione plants. This item is calculated according to current legislation.
133	Quantity of carbon dioxide emitted into the atmosphere by the A.R.I.A. waste-to-energy plants. This item is calculated according to current legislation.
134	Total quantity of nitric oxides ( $\text{NO} + \text{NO}_2$ ) emitted into the atmosphere as a consequence of the generation of thermoelectric energy from fossil fuels and from the waste-to-energy treatment of WDF and pulper. Their presence in trace form in the emissions is due to the secondary undesirable reactions which take place at a high temperature between the nitrogen and the oxygen in the air. This figure is calculated.
135	Quantity of nitric oxides ( $\text{NO} + \text{NO}_2$ ) emitted into the atmosphere as a consequence of the generation of thermoelectric energy from fossil fuels in the Acea Produzione plants. This figure is calculated.
136	Quantity of nitric oxides ( $\text{NO} + \text{NO}_2$ ) emitted into the atmosphere by the A.R.I.A. waste-to-energy plants. This figure is calculated.
137	Total quantity of carbon monoxide (CO) emitted into the atmosphere as a consequence of the generation of thermoelectric energy from fossil fuels and waste-to-energy process. The presence of this pollutant in the emissions is due to incomplete combustion reactions and represents a symptom of decline in the combustion reaction efficiency. This figure is calculated.
138	Total quantity of carbon monoxide (CO) emitted into the atmosphere as a consequence of the generation of thermoelectric energy from fossil fuels in the Acea Produzione plants. This figure is calculated.
139	Quantity of carbon monoxide (CO) emitted into the atmosphere by the A.R.I.A. waste-to-energy plants. This figure is calculated.
140	Total quantity of sulphur dioxide ( $\text{SO}_2$ ) emitted into the atmosphere as a consequence of the generation of thermoelectric energy from fossil fuels and from the waste-to-energy treatment of WDF and pulper. The use of natural gas and gas oil with a low sulphur content in the plants made it possible to sharply contain this type of emission. This figure is calculated.

## SPILLS AND WASTE – ENERGY SECTOR

ITEM NO.	EXPLANATION – COMMENT
141	Quantity of sulphur dioxide (SO <sub>2</sub> ) emitted into the atmosphere as a consequence of the generation of thermoelectric energy from fossil fuels in the Acea Produzione plants. This figure is calculated.
142	Quantity of sulphur dioxide (SO <sub>2</sub> ) emitted into the atmosphere by the A.R.I.A. waste-to-energy plants. This figure is calculated.
143	Total quantity of dust (microscopic particles with an average aerodynamic diameter equal to or less than 10 thousandths of a millimetre) emitted into the air as a consequence of the generation of thermoelectric energy using fossil fuels and from the waste-to-energy treatment of WDF and pulper. This mainly involves unburnt amorphous carbon, with traces of other compounds of a mixed composition obtained as a by-product of the combustion when this does not take place completely.
144	Quantity of dust emitted into the atmosphere as a consequence of the generation of thermoelectric energy from fossil fuels in the Acea Produzione plants. This figure is calculated.
145	Quantity of dust emitted into the atmosphere by the A.R.I.A. waste-to-energy plants. The strong reduction in 2012 depends on the pollutant abatement system made even more efficient and using an electrostatic filter and bag filter. This figure is calculated.
146	Total quantity of waste water treated, deriving from thermoelectric production activities. This item is gauged with uncertainty of ± 2%.
147	This item coincides with item 98.
148	Total quantity of hazardous waste (pursuant to Italian Legislative Decree No. 152/06) disposed of by Acea Group companies with the exclusion of the waste-to-energy sector. The item is measured with uncertainty of ± 2%.
149	Hazardous waste (pursuant to Italian Legislative Decree No. 152/06) disposed of from the waste-to-energy sector. This basically involves light ash and slag deriving from incineration. The considerable increase in 2011 was due to the change in the CER code of the slag following the amendments introduced to the environmental consolidation act, as well as the activation of the two new lines. The item is measured with uncertainty of ± 2%.
150	Total quantity of non-hazardous waste (pursuant to Italian Legislative Decree 152/06) disposed of by the Acea Group companies with the exclusion of the waste-to-energy sector. The item is measured with uncertainty of ± 2%.
151	Non-hazardous waste (pursuant to Italian Legislative Decree No. 152/06) disposed of from the waste-to-energy sector. This is essentially heavy ash and slag, deriving from incineration. The item is measured with uncertainty of ± 2%.



## SPILLS AND WASTE –WATER SECTOR

ITEM NO.	EXPLANATION – COMMENT
152	Total quantity of sludge disposed of by Acea Ato 2. This sludge is non-hazardous waste. The item is measured with uncertainty of $\pm 2\%$ .
153	Total quantity of sand and sediment disposed of by Acea Ato 2. The item is measured with uncertainty of $\pm 2\%$ .
154	Total quantity of hazardous waste (pursuant to Italian Legislative Decree No. 152/06) disposed of by Acea Ato 2 plus a portion produced by the Parent Company ascribed in equal parts to the two areas of activities, energy and water. The figure is measured with uncertainty of less than $\pm 2\%$ .
155	Total quantity of non-hazardous waste (pursuant to Italian Legislative Decree 152/06) disposed of plus a portion produced by the Parent Company ascribed in equal parts to the two areas of activities, energy and water. In 2010, the figure was higher than the average since extraordinary work was carried out which generated waste essentially comprising earth and sundry material. The item is measured with uncertainty of $\pm 2\%$ .
156	Total quantity of sludge disposed of by all the water companies in the Acea Group, excluding Acea Ato 2. This sludge is non-hazardous waste. This figure is calculated.
157	Total quantity of sand and sediment disposed of by all the water companies in the Acea Group, excluding Acea Ato 2. This figure is calculated.
158	Total quantity of hazardous waste (pursuant to Italian Legislative Decree No. 152/06) disposed of by all the water companies in the Acea Group, excluding Acea Ato 2. This figure is calculated.
159	Total quantity of non-hazardous waste (pursuant to Italian Legislative Decree 152/06) disposed of by all the water companies in the Acea Group, excluding Acea Ato 2. Inert material is also included. This figure is calculated.

## ACEA GROUP SPILLS AND WASTE - EMISSIONS FROM VEHICLES

ITEM NO.	EXPLANATION – COMMENT
160	Total quantity of carbon dioxide emitted by the Acea Group vehicle fleet. The item was calculated, in 2012, using Sinanet emission factors ( <a href="http://www.sinanet.isprambiente.it">www.sinanet.isprambiente.it</a> ). In previous years the item was calculated using the COPERT IV programme. The increase in 2012 compared with 2011 depends on an expanding perimeter.
161	Total quantity of nitric oxides emitted by the Acea Group vehicle fleet. The item was calculated, in 2012, using Sinanet emission factors ( <a href="http://www.sinanet.isprambiente.it">www.sinanet.isprambiente.it</a> ). In previous years the item was calculated using the COPERT IV programme. The increase in 2012 compared with 2011 depends on an expanding perimeter.
162	Total quantity of carbon monoxide emitted by the Acea Group vehicle fleet. The item was calculated, in 2012, using Sinanet emission factors ( <a href="http://www.sinanet.isprambiente.it">www.sinanet.isprambiente.it</a> ). In previous years the item was calculated using the COPERT IV programme. The increase in 2012 compared with 2011 depends on an expanding perimeter.
163	Sulphur dioxide emissions by vehicles were not calculated, as they were extremely small amounts deriving from combustion of modest quantities of sulphur found in latest-generation fuels.
164	Total quantity of carbon dioxide emitted by the air-conditioning systems in the work environments. This item is calculated under the assumption that each toe of fuel used creates 3 tons of CO <sub>2</sub> .



## **Acea**

### **Sustainability Report 2012**

#### **Institutional Relations**

**tel. +39 06 57996440**

**mail: RSI@aceaspa.it**

Co-ordination of the editorial work

**Irene Mercadante**

Work Group

**Debora Sabatini**

**Davide de Caro**

**Silvia Fortuna**

Edited by

**Relazioni Esterne e Comunicazione**

**Tiziana Flaviani**

Graphics

**Message**

Photography

**Archivio Acea**

**Fabio Anghelone**

Printing

**LitografTodi**

on FSC certified paper



Finished printing in April 2013