



Acea Sustainability Report **2011**

- Corporate identity
- Socio-economic relationships
with the stakeholders
- Environmental issues
- Environmental accounts



Index

INTRODUCTORY LETTER	4	CORPORATE IDENTITY	19
COMMUNICATING SUSTAINABILITY: METHOD NOTES	6	Group profile	20
RECONCILIATION OF GLOBAL COMPACT PRINCIPLES WITH THE GRI INDICATORS	10	Activities and functions of the main Group companies	24
GRI CONTENT INDEX: STANDARD ELEMENTS	12	General economic indicators	26
OPINION LETTER ISSUED BY THE CONSULTING FIRM	16	Development and Strategic Plan	29
		Strategy and sustainability	32
		Acea: the values and the contribution towards sustainability	32
		Sharing of the corporate social responsibility themes	34
		The 2011 sustainability objectives	35
		Corporate governance and management systems	45
		Corporate governance within Acea	45
		Management systems	50
		Stakeholders and sharing added value	55
		Stakeholders and their involvement	55
		Distribution of Acea's added value	57

SOCIO-ECONOMIC RELATIONSHIPS WITH THE STAKEHOLDERS	59	ENVIRONMENTAL ISSUES	153
The economic and social performance indicators	60	GRI environmental performance indicators	154
Customers and the Community	67	The commitment towards sustainability	157
Acea Group customers	67	Climate change: an open question	158
Perceived quality	68	Biodiversity and the Company	159
Supplied quality	74	The exchanges which enhance	160
The tariffs	93	Environmental operations	160
Customer care	96	Environmental expenditure	161
Communication, events and solidarity	101	Energy	162
Suppliers	109	Energy generation:	162
Consolidated external costs	109	fossil and renewable energy sources	169
Purchasing policies	109	Energy distribution: networks and smart grid	171
The supply of goods, services and work	110	Energy savings	171
Supplier assessment	115	Water	174
Human resources	118	Activities in Central Lazio:	175
Acea's Human Resources	118	springs and protected areas	176
Industrial relations	123	Water quality	180
Diversity and Equal opportunities	126	The sewerage service and the treatment system	182
Working hours and absences	127	Use of energy and water	182
Safeguarding health and safety in the workplace	128	Energy consumption	183
Capitalising on Human Resources	131	Water consumption	185
and communication	137	Emissions, mobility and waste	185
Social activities	139	Emissions into the atmosphere	187
Shareholders and Financial backers	139	Acea Group waste	189
The economic flow towards shareholders	139	Research	189
and financial backers	139		
Agency ratings	140	INDEX OF CHARTS AND TABLES	194
Financial disclosure	141		
Ethical finance	143	ENVIRONMENTAL ACCOUNTS	I-XXXVII
Institutions and the Company	143		
Relations with Institutions	143		
The company as stakeholder	146		
Activities abroad	148		

Introductory letter

The *Sustainability Report*, which in 2011 reached its fourteenth edition, has become the main reporting instrument adopted by the Group so as to present the results for the year from a sustainability standpoint, results awaited by outside observers increasingly more heedful of the principles of corporate social responsibility.

The description and quantification of the non-financial data, the intangible assets and the social and environmental performance indicators represent the nerve centre of the document which intends to supplement and complete the overview of the economic-financial information already available in the statutory financial statements. In full awareness, Acea therefore deemed that the moment was more than ripe for aligning the publication timescales of the Sustainability Report with those of the annual financial statements - and this is the innovation for this edition - so as to render the two reports usable at the same time, offering the parties concerned a more structured and complex picture of the results of the activities and corporate management, with indication of all the elements which contribute towards defining the distinctive value of the company.

The value and principles which guide the Group find ample room among the contents of the report, along with the activities and operating results, the sustainability objectives achieved and to be achieved, the areas of excellence and those to be improved. Among the elements of excellence which can be mentioned for characterising 2011 in sustainability terms, it is sufficient here to recall the energy efficiency measures planned and consistently achieved care of the operating companies in the water area, with results that exceeded the established objectives; the various projects implemented over the last few years for the improvement of the continuity performances for the distribution of electricity, with rewarding results for the company, and further still the increase in generation from solar sources, the considerable development and enhancement under way of the plants serving the Environment industrial area or in conclusion projects as specific as they are worthy, such as the vendor rating system applied in the work sector-energy area which generated a marked increase in the quality and safety factors along the supply chain.

Taking into account the continuation of a context of general difficulty at macro-economic level in the country, it can be stated that the Group has managed to confirm its economic-financial stability, achieving positive results even if slightly down with respect to 2010. Revenues amounted to Euro 3.5 billion, with a growing contribution from the Water, Networks and Environment industrial areas. The EBITDA (gross operating margin) came close to Euro 656 million and the net profit amounted to around Euro 86 million. Investments achieved during the year, mostly attributable to the water management activities and energy networks, totalled Euro 413 million.

98% of Human Resources employed in Group companies, who exceeded the threshold of 7,000, were employed under permanent contracts. Against a rise in the leaver rate and a drop in the recruit rate, the turnover rate has remained more or less stable in the last three years. This demonstrates that the need to achieve lay-off plans and downsize the workforce, despite being present in the Group, is satisfied by conscientiously limiting the social impacts.

The figures relating to accidents also improved thanks to careful awareness raising activities regarding safety: there are currently 12 Group companies in which a safety in the workplace management system

has been implemented in compliance with the OHSAS 18001:2007 standard, including Acea SpA which obtained this acknowledgement during the year.

During the first quarter of 2011, as per the agreement reached at the end of 2010, the procedure for the winding-up of the "AceaElectrabel" joint venture with the partner GdF Suez Energy Italia SpA in the electricity generation, trading and sales sectors was completed, leading Acea to acquire complete autonomy in the energy sector, with the establishment of a new industrial production and sales structure under its complete operational responsibility. The presence of the Group in the electricity sales sector was consolidated confirming the trend of constant growth in the segment of the free market, with an increase in the number of customers of 115% with respect to 2010; while with regard to the generation of energy, Acea is now focused on renewable sources and in particular on hydroelectric and photovoltaic power.

The Business Plan in force for the whole of 2011, as well as the new one recently approved, contains elements attributable to the sustainable evolution of the businesses. On a consistent basis with these, projects have been implemented to optimise the operational management in the water area, with measures aimed at improving the set up of the networks and the functionality of all the infrastructures dedicated to the integrated water service which in 2011 saw a rise in volumes of both drinking water introduced onto the network and waste water treated. The plan for developing photovoltaic activities between 2010 and 2011 more than doubled the installed output and production. In the Environment sector, mention is made of the following: the progress of the work for modernising and enhancing the waste-to-energy plants, whose treatment capacity will emerge as considerably increased when fully up and running; the continuation of the authorisation processes for the launch of work for enhancing the compost production plants as well as the acquisition of the control over the company ISA, active in accessory waste management services. Furthermore, research projects continued during the year aimed at technological innovation, achieved in various sectors of operations; among these, some of primary importance have been implemented in relation to the operating excellence in electricity distribution (smart grids) that will be developed further over the next few years.

In conclusion, referring to the reading of the report introduced here for an accurate interpretation of the activities undertaken by the Group in the various industrial areas and in relation to the stakeholders, we would like to remark on the validity of the choice to direct company growth towards sustainable development criteria, which show preference for a balanced and long-lasting process.

The Chief Executive Officer
Marco Staderini



The Chairman
Giancarlo Cremonesi



Communicating sustainability: method notes

The *Sustainability Report* provides a qualitative and quantitative description of 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 2011, and is the fourteenth report, published annually, since Acea, at the time of redefining its corporate mission and stock market listing, started down the route of social responsibility.

For the first time, the ***Sustainability Report***, having obtained the **approval of the Board of Directors**, is published in **concurrency with the approval of the Annual statutory financial statements** by the shareholders' meeting.

The new timing is due to the wishes of senior company management, formalised by the Reporting and CSR development lines adopted in November 2011 by Acea SpA's Ethics Committee.

Guidelines

The reference guidelines - necessary for drawing up an objective and comparable account - have become more challenging over time, introducing more accurate indicators. In this edition, Acea has followed the reporting standards and performance indicators of the **GRI-G3.1 Guidelines**¹, 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**, around 250 items which quantify the physical flows generated by the Group's activities²: the production values, the factors used (the resources), and the external outputs (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**, and each year compliance with the international body has been formally confirmed by senior management. The *Communication on Progress* (CoP) envisaged by the Global Compact 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 Global Compact and the GRI.

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 environment), **of the country - Italy - in which the activities are mainly carried out** and the **types of stakeholders** with whom the Group interacts.

In order to more fully apply the **principle of materiality**, adequately highlighting 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**, taking into account the "importance" assigned - low, average, high - on the basis of an analysis³ of the internal and external factors checked by a benchmark. On conclusion of these survey activities, elements emerged

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; 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 environmental figures for the energy area, in 2011, were 100% calculated, on a consistent basis with the criteria adopted for the consolidated financial statements and taking into account the changes to the ownership set up which took place with the winding up of the JV with GdF Suez Energy Italia, following which Acea also acquired 100% of Acea Produzione. The figures for the water sector are 100% booked to the Group, irrespective of the shareholding and on a consistent basis with the principles indicated by the GRI, since Acea represents the industrial entity responsible for management activities.

³ The documentary analysis, supplemented by interviews with internal stakeholders and focus groups with external stakeholders, was achieved during 2011 and envisaged the processing of the "mapping of the importance" both for the report currently being drafted (the 2010 Sustainability Report) and for the subsequent editions, establishing, for example, the permanence in the "high importance" area of the "protection of biodiversity" for just the 2010 edition, coinciding with the year dedicated by the United Nations to biodiversity, and the subsequent allocation of the item to the "average importance" area.

summarily represented in table No. 1, each of which in reality has more complex breakdowns⁴. 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. The *2011 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).

Table No. 1 – MATERIALITY: MAPPING OF THE IMPORTANCE

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

Table No. 2 – LEVEL OF APPLICATION OF THE GRI-G3.1 GUIDELINES

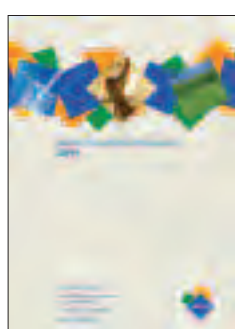
APPLICATION LEVEL	C	C+	B	B+	A	A+
PROFILE DISCLOSURE	Report on: 1.1 2.1-2.10 3.1-3.8 3.10-3.12 4.1-4.4 4.14-4.15	REPORT ASSESSED EXTERNALLY	Report on all the criteria listed for Level C plus: 1.2 3.9, 3.13 4.5-4.13 4.16-4.17	REPORT ASSESSED EXTERNALLY	Same as requirement for level B	REPORT ASSESSED EXTERNALLY
DISCLOSURES ON MANAGEMENT APPROACH	Not required		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	Reportfully on a minimum of 10 performance indicators, including at least one indicator from each of economic, social and environment		Report 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	

⁴ 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.

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.

The **structure of the 2011 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 on the institutional website – 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 2011 SUSTAINABILITY REPORT



Corporate identity
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 composite dimension of the Group (also see the section **Group Profile**) and without omitting significant information or data.

The wider boundary considered is that referring to economic information, comprising the complex made up of Acea SpA and the other companies falling within the **scope of consolidation**, as defined in the 2011 *Consolidated Financial Statements*⁵. **Each time this boundary changes**, according to the effective availability of the data - to be placed in relation with a progressive centralised management of the same -, **this is specified and appropriately indicated in the text**⁶. The activities of the holding company and the main operating companies in the water, energy and environment sector, which represent the most significant economic, social and environmental performances of the Group, have been subject to due reporting, to ensure comparability, and year by year, Acea seeks to extend the reporting boundary, reflecting the dimension of the Group as fully as possible.

Box – 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 (the 3 companies established further to the winding up of the joint venture between Acea SpA and GdF Suez Energia Italia SpA); A.R.I.A. (within which the companies EALL, Terni En.A, Enercombustibili and Ergo Ena were merged via incorporation), Acea Ato 2, Acea Ato 5, LaboratoRI, Acque, Gori, Acquedotto del Fiora, Publiacqua, 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.

⁵ Available on the website www.aceaspa.it (Shareholders section).

⁶ In various cases, the reporting area of The socio-economic relationships with the stakeholders and Environmental issues sections does 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 (dataowners); they are 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 measurement** 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, measurement or estimation**.

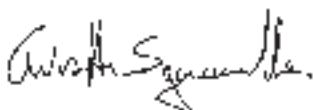
Box – Other sources of information on Group performances: the website

On the website www.aceaspa.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 and the texts of the main value codes adopted by the Group;
- in the **"Shareholders"** section, the economic-financial reports are published, including the on-line version of the *Consolidated Financial Statements* (in Italian and English) along with other information of interest. 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;
- in the **"Sustainability"** section, the complete text, in PDF format, of the *2011 Sustainability Report* is available, along with all the previous editions of the report; in addition, as from the 2008 edition, 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: rapporti.istituzionali@aceaspa.it

Giuseppe Sgaramella
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Institutional and Regulatory Affairs Division



Reconciliation of Global Compact principles with the GRI indicators

Global Compact 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 below⁷, 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

Global Compact Principles	Corresponding GRI indicators	Sustainability Report	
Human rights	1: Businesses should support and respect the protection of internationally proclaimed human rights within their sphere of influence	EC5 – LA4 – from LA6 to LA9 – LA13 – LA14 – from HR1 to HR9 – PR1 – PR2 – PR8 –	pages 131 – from 123 to 125 – 116, 129, 130 – 122, 126, 138 – 131 – 32, 63, 64, 109, 115, from 123 to 125, 126, 135, 137, 138, 143 - 50, 52, 53, 90, 116, 146 – 65 – 46, 96
	2: Businesses should ensure that they are not complicit in human rights abuses	from HR1 to HR9	pages 32, 63, 64, 109, 115, from 123 to 125, 126, 135, 137, 138, 143
Work	3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	LA4 – LA5 – from HR1 to HR3 – HR5	pages from 123 to 125 – 109, 115, 135, 143 – from 123 to 125, 137, 138
	4: Businesses should uphold the elimination of all forms of forced and compulsory labour	from HR1 to HR3 – HR7	pages 109, 115, 135, 143 – 64
	5: Businesses should uphold the effective abolition of child labour	from HR1 to HR3 – HR6	pages 109, 115, 135, 143 – 63
	6: Businesses should uphold the elimination of discrimination in respect of employment and occupation	EC7 – LA2 – LA13 – LA14 – from HR1 to HR4	pages 60 – 119, 122 – 122, 126, 138 – 63, 131 – 32, 63, 109, 115, 126, 135, 138, 143

⁷ This reconciliation has been drawn up by UNGlobal Compact and the Global Reporting Initiative, and is available on-line (www.unglobalcompact.org) under Making the Connection. The GRI Guidelines and the UNGC Communication on Progress.

Global Compact Principles

Corresponding GRI indicators

Sustainability Report

Environment	7: Businesses should support a precautionary approach to environmental challenges	4.11 – EC2 – EN18 – EN26 – EN30	pages 49, 116, 185 – 26, 57, 158, 171 – 172 – 156, 160, 162, 185 – 161
	8: Businesses should undertake initiatives to promote greater environmental responsibility	PR3 – PR4 – from EN1 to EN30	pages from 74 to 92 – 94, 147, 154, 155, 156, 159, 160, 161, 162, 169, 182, 183, 184, 185, 186, 187, 171, 172, 175, <i>Environmental accounts</i> from XI to XIII, XIV, XVI, XVII
	9: Businesses should encourage the development and diffusion of environmental friendly technologies	EN2 – from EN5 to EN7 – EN10 – EN18 – EN26 – EN27 – EN30	pages 154 – 94, 162, 169, 171, 172 – 183, 184 – 172 – 156, 160, 162, 185 – 156 – 161
Anti-corruption	10: Businesses should work against corruption in all its forms, including extortion and bribery	from SO2 to SO6	pages 44, 49, 50, 65, 133, 134, 143
	ALL (1-10)	1.1 – 1.2 – from 4.1 to 4.10 – 4.12 – 4.13 – 5 (DMA) – SO5	pages 4, 6 – 4, 26, 29, 30, 32, 33, from 35 to 44 – 6, 14, 32, 45, 46, 47, 48, 49, 54, 131, 132, 139 – 6, 45, 112, 129, 144, 158, 160 – 143, 144 – 26, 32, 34, 50, 74, 75, 109, 115, 131, 133, 139, 146, 157, 168 – 143

GRI content index: standard elements

The **standard elements** envisaged by the **GRI-G3.1 Guidelines, 2011 edition** are presented below⁸, 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 reference pages of the report, are by contrast presented on the first few pages of the sections: *The socio-economic relationships with the stakeholders* and *Environmental issues*. (tables No. 13 and 66).

The meaning of each standard element is illustrated in the *Guidelines*, available on the website 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. <i>Introductory letter</i> page 4; <i>Communicating sustainability: method notes</i> page 6
1.2	Description of key impacts, risks, and opportunities. <i>Introductory letter</i> page 4; <i>Corporate identity</i> pages 26, 29, 30, 32 et seq., 35-44
2.	PROFILE OF THE ORGANIZATION
2.1	Name of the organization. <i>Corporate identity</i> page 20
2.2	Primary brands, products, and/or services. <i>Corporate identity</i> page 20
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures. <i>Corporate identity</i> pages 22, 23, 24
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. <i>Corporate identity</i> pages 20, 27 and note 14
2.6	Nature of ownership and legal form. <i>Corporate identity</i> page 22
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries). <i>Corporate identity</i> page 26; <i>Socio-economic relationships with the stakeholders</i> pages 67-68
2.8	Scale of the organization, including: number of employees; net turnover (for private organizations) or net revenues (for public bodies); total capitalization. <i>Corporate identity</i> pages 22, 26; <i>Socio-economic relationships with the stakeholders</i> pages 118, 139
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). <i>Corporate identity</i> pages 23, 24, 29, 31, 45; <i>Socio-economic relationships with the stakeholders</i> pages 109, 146; <i>Environmental issues</i> page 162
2.10	Awards received in the reporting period. <i>Corporate identity</i> page 34; <i>Socio-economic relationships with the stakeholders</i> pages 75, 105, 145

⁸ With reference to the GRI-G3.1 Guidelines, for the standard elements already envisaged by the GRI-G3.1 Guidelines, 2006 edition, the definition present in the Italian translations 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 page 6
- 3.6 Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers).
Communicating sustainability: method notes page 8
- 3.7 State any specific limitations on the scope or boundary of the report.
Communicating sustainability: method notes page 8; *Socio-economic relationships with the stakeholders* page 110 note 82
- 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 page 8
- 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 page 6 note 2, 8; *Socio-economic relationships with the stakeholders* pages 119, 123-125, 126, 127, 128, 130, 131, 135 nota 97, 137; *Environmental issues* page 162
- 3.11 Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.
Communicating sustainability: method notes page 8; *Corporate identity* page 22; *Socio-economic relationships with the stakeholders* pages 119, 123-125, 126, 127, 128, 130, 131, 137

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 standards elements.; for the performance indicators (core and additional), see: *Socio-economic relationships with the stakeholders* pages 60-66; *Environmental issues* pages 154-156

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 45, 46, 47, 48, 49
- 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, 48
- 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 pages 46, 47 note 22
- 4.4 Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.
Corporate identity pages 46, 48, 49; *Socio-economic relationships with the stakeholders* page 139
- 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, 49; *Socio-economic relationships with the stakeholders* pages 131, 132
- 4.6 Processes in place for the highest governance body to ensure conflicts of interest are avoided.
Corporate identity pages 45, 47 and note 22
- 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.
Corporate identity pages 46, 47
- 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.
- 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 32, 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, 48, 49, 54
- 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, 48, 49

Commitment in external ventures

- 4.11 Explanation of whether and how the precautionary approach or principle is addressed by the organization.
Corporate identity page 49; *Socio-economic relationships with the stakeholders* page 116; *Environmental issues* page 185

- 4.12 (*) Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.
Communicating sustainability: method notes page 6; *Corporate identity* page 45; *Socio-economic relationships with the stakeholders* pages 112, 129, 144; *Environmental issues* pages 158, 160
- 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 143, 144

Involvement of the stakeholders

- 4.14 List of stakeholder groups engaged by the organization.
Corporate identity pages 34, 55; *Socio-economic relationships with the stakeholders* pages 96, 100
- 4.15 Basis for identification and selection of stakeholders with whom to engage.
Corporate identity page 55; *Socio-economic relationships with the stakeholders* pages 96, 100
- 4.16 Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.
Corporate identity page 55; *Socio-economic relationships with the stakeholders* pages 68-74, 92, 96, 100, 101-105, 116, 123-125, 140, 142
- 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 page 55; *Socio-economic relationships with the stakeholders* pages 68-74, 96, 100, 102, 116, 140, 142, 145, 146

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, 32, 34, 50; *Socio-economic relationships with the stakeholders* pages 74, 75, 109, 115, 131, 133, 139, 146; *Environmental issues* pages 157, 168
- EU1 Installed capacity, broken down by primary energy source and by regulatory regime.
Corporate identity page 30 note 17; *Environmental issues* page 166
- EU2 Net energy output broken down by primary energy source and by regulatory regime.
Environmental issues page 163
- EU3 Number of residential, industrial, institutional and commercial customer accounts.
Socio-economic relationships with the stakeholders page 67
- EU4 Length of above and underground transmission and distribution lines by regulatory regime.
Environmental issues page 169
- EU5 Allocation of CO₂ emissions allowances or equivalent, broken down by carbon trading framework.
Environmental issues page 185

(*) For the standard element 4.12, we preferred to internally translate the original English version of the GRI-G3 Guideline, presented as follows: "Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses".

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 2011, 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:

- 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 2011. In particular, the review was performed on all the data directly related to the Consolidated Financial Statements or Company Financial Statements and on the basis of test-checks of the data reported in such financial statements or 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 12 April 2012 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:
 - i) obtain information concerning the informative, accounting and reporting system supporting the elaboration of the *Sustainability Report*;
 - ii) review the processes and procedures supporting the data collection, aggregation, elaboration and transmission from the operating units and

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 Acea's management for 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 the Supplement for the Utilities Sector, electricity sector).

We note, *vis-à-vis* preceding fiscal years, a significant reduction in the time frame for preparing of the *Sustainability Report* thereby permitting the simultaneous publication of the Company Financial Statements and of the Consolidated Financial Statements; nevertheless, for purposes of pursuing the improvement path undertaken and facilitating, *inter alia*, a more homogeneous application of the accounting parameter, we suggest adequately implementing the flow of information that support the realization of a report in line with the principles of accuracy and reliability of the data and information defined by the GRI Guidelines.

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, 14 April 2012

RG&A S.r.l



Riccardo Giovannini
Managing Director





Corporate identity

Group profile

The Acea Group is one of the main Italian utility, with over a century of history, active in the industrial management of networks and services of general economic interest. Its activities cover the segments of the energy industry (from generation to distribution, from the sale of electricity and gas to the management of public lighting), the integrated water service (from catchment and distribution to collection and treatment) and waste management services (treatment and economic handling of waste).

Participating in the changes which have affected these sectors and following the evolution of the same, on a consistent basis with the mission of governing and running public utility services, Acea has grown endowing itself with companies with whom it faces new challenges, just consider the energy savings and efficiency services, the production of electricity from renewable sources, the exploitation of waste and sludge deriving from water treatment.

The company has extended and strengthened its commitment throughout the territory beyond the original area of operations centred on Rome, which characterised the very identity and to which it remains fundamentally linked. In the management of the water services, in fact, the Group companies are active in Italy, from Tuscany to Campania, also taking part in certain foreign activities in Latin America. 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 the Company becomes Azienda Governatoriale Elettricità e Acque (AGEA), with the conferral of the aqueduct services
- 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 on 1 January Acea begins to operate as a Joint-Stock Company under the name of Acea SpA
- 1999 it is listed on the Stock Exchange and becomes a corporate group
- 2000 the Company adopts a policy for expansion on both the Italian and overseas markets and explores new areas
- 2001 it acquires Enel SpA's energy distribution business segment serving Rome's metropolitan area
- 2002 it is awarded the management of the integrated water cycle in ATO 2 – Central Lazio and acquires the management of the sewage service in the Municipality of Rome; it creates a strategic joint venture - AceaElectrabel – with the partner GdF Suez Energia Italia SpA
- 2003 together with other partners it acquires Tirreno Power. In the water sector, it is awarded the management of the integrated water service in new Optimum Areas of Operation (ATO)
- 2004 it develops its production capacity: AceaElectrabel Produzione acquires the electricity generation initiatives from the other partners. It is awarded the PL service in Naples. Water management activities in Tuscany are consolidated.

- 2005 it further enhances production and develops sales activities in the energy sector, in view of their balancing; in the integrated water sector, it concentrates its commitment towards the neighbouring Optimum Areas of Operation
- 2006 it acquires control over TAD Energia Ambiente SpA, operative within the sphere of the production of energy from waste (waste-to-energy); it enhances its sales capacity of energy and gas (in Puglia and in Tuscany); it consolidates the management activities of the water service in the Tuscan Optimum Areas of Operation
- 2007 it increases its capacity to produce electricity from both traditional sources and renewable ones. In this latter sphere, it launches a considerable enhancement programme, in particular from wind and photovoltaic sources
- 2008 it concludes the phase for the construction and operational launch of the new thermoelectric plants, increases the ventures in the field of renewable energy and lays the foundations for the growth of the waste-to-energy business. By means of the formation of Acea8cento, it internalizes the management of the

channels of contact between Group companies and customers

- 2009 the Company consolidates integrated water management services in ATOs in Lazio, Campania, Tuscany and Umbria and expands Waste-To-Energy and energy production from renewable sources
- 2010 it defines the Outline Agreement with the partner GdF Suez, for the winding up of the JV with Electrabel in the energy generation, sale and trading sector; it increases its commitment in the sector of renewables (photovoltaic) and the waste management industrial area
- 2011 following the winding up of the JV with the partner GdF Suez, Acea acquires complete autonomy in the energy sector, with the establishment of an industrial production and sales structure under its full ownership and management; it develops technological innovation activities in relation to the operating excellence in electricity distribution (smart grid); it increases the production of energy from renewable sources and continues to develop activities pertaining to the Environment industrial area.

Chart No. 2 – ACEA GROUP ACTIVITIES

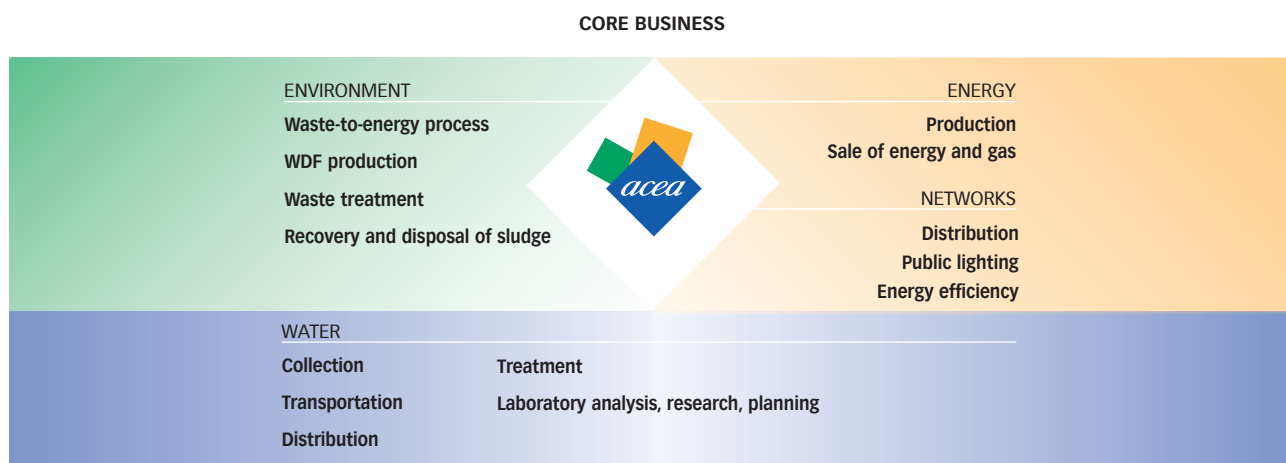


Table No. 5 – THE ACEA GROUP: THE NUMBERS FOR 2011

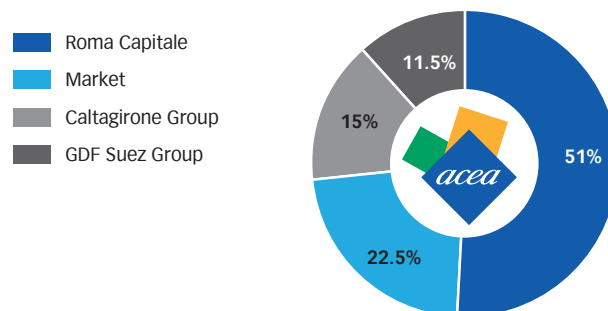
employees (number, per % of consolidation)	7,050
net revenues (millions of Euro)	3,538
total capitalisation (millions of Euro)	3,397.9
bonds	988.7
shares	1,098.9
long-term loans	1,310.3
total balance sheet assets (millions of Euro)	6,617.4
electricity	
generation (GWh) (gross)	544.4
from renewable sources (GWh) (gross)	447.7
hydroelectric	321
photovoltaic	52
waste-to-energy	74.7
distribution (GWh)	11,872
sale (GWh) (free and protected market)	16,537.5
electricity and gas customers (number)	1,460,959
waste to energy (WtE)	
energy generation (GWh) (gross)	149.4
waste treated - WDF (t)	158,557
public lighting	
lighting units managed in Rome (number)	181,991
water (integrated water service)	
drinking water supplied (Mm ³)	668.7
number of analytical controls on drinking water	1,102,737
waste water treated (Mm ³)	935.6
inhabitants served in Italy (millions)	8.5
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 (see Environmental issues and the Environment accounts); 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 2011**, other significant shareholdings in the share capital, direct or indirect, were in circulation on the market (22.5%), held by the Caltagirone Group (15%) and the GDF-SUEZ Group (11.5%).

Acea SpA, the Parent Company, holds the corporate shareholdings and exercises **strategic policy** and **economic-**

Chart No. 3 – THE SHAREHOLDING STRUCTURE AS OF 31 DECEMBER 2011



Source: CONSOB - only shareholdings greater than 2% are shown.

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**, after the reorganisation in 2011⁹ is divided up into **corporate functions** and **four business areas** - **Water, Networks, Energy, Environment** - to whom the individual companies report (see chart No. 6).

The Group's scope of consolidation as of 31 December 2011 included the **50 companies** listed in table No. 6 (consolidated in the financial statements using the line-by-line and proportional method) and an additional **15 companies** carried at equity.

The **most significant changes** which took place during the year in the scope of consolidation mainly derive from the winding up of the energy joint venture outstanding since 2002 with the partner GdF Suez Energy Italia, which led to measures on both the companies included in the scope and the consolidation criteria. The companies involved in the trading and generation of energy (from traditional and wind sources) left the scope of consolidation, these including AceaElectrabel Produzione with its investee companies and Tirreno Power, while three new companies were established, wholly-owned by Acea SpA: Acea Energia Holding, Acea Energia and Acea Produzione; the holdings owned by Acea SpA in the energy sales companies, also previously included in the joint venture, were also increased. Other changes in the scope of consolidation concerned: the merger via incorporation of Terni En.A., EALL, Enercombustibili and Ergo Ena in the company A.R.I.A.; the change in the consolidation criteria of Acquedotto del Fiora; and the first-time consolidation of the company Innovazione Sostenibilità Ambientale (ISA).

⁹ For additional information on the 2011 reorganisation of the macrostructure, please refer to the section Corporate governance within Acea.

Table No. 6- SCOPE OF CONSOLIDATION AS OF 31 December 2011 (companies consolidated on a line-by-line and proportional basis)

company name	registered office	Acea SpA % holding	consolidation method
Acea Distribuzione SpA	Rome	100.00%	line-by-line
Acea Ato 2 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
Ombrone 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	95.79%	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 Bogotá SA	Bogotá-Colombia	51.00%	line-by-line
Acea Dominicana SA	Santo Domingo	100.00%	line-by-line
A.R.I.A SpA (**)	Terni	100.00%	line-by-line
SAO SpA	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
Consorzio Acea Ricerca e Perdite	Rome	67.00%	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)	40.00%	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 - Peru	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	Florence	40.00%	proportional
Publiutenti Srl	Florence	40.00%	proportional
Gori SpA	Torre Annunziata (NA)	37.05%	proportional
Umbra Acque SpA	Perugia	40.00%	proportional
A.PI.C.E. SpA	Rome	50.00%	proportional
Intesa Aretina Scarl	Milano	35.00%	proportional
Nuove Acque SpA	Arezzo	16.16%	proportional
Ingegnerie Toscane Srl	Florence	43.01%	proportional
Consorcio AZB-HCI (Conazul)	Lima - Peru	60.00%	proportional
Acquedotto del Fiora SpA	Grosseto	40.00%	proportional

(*) Crea Gestioni Srl absorbed Crea Partecipazioni and Acea Rieti.

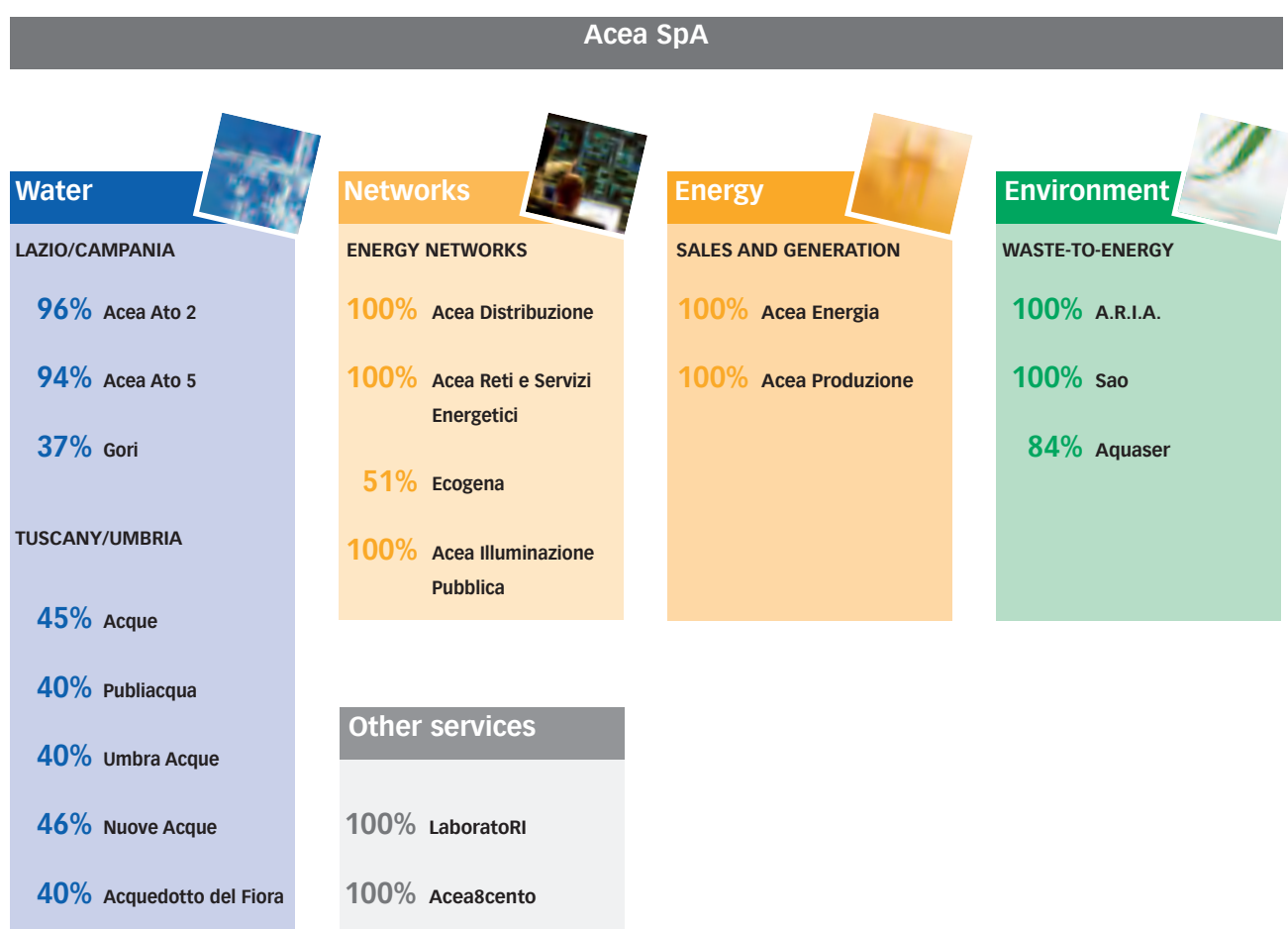
(**) A.R.I.A. SpA merged the companies EALL, Terni En.A., Enercombustibili and Ergo En.A via incorporation.

Activities and functions of the main Group companies

The Group's **operational set-up** as of 31 December 2011, by business area is outlined in chart No. 4. The activities carried out

by the main companies are described in summary form in the following diagram.

Chart No. 4 - OPERATIONAL SET-UP AS OF 31 DECEMBER 2011



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.

Ombrone SpA:

holds shareholdings in **Acquedotto del Fiora SpA**, operator of the integrated water service in ATO 6 – Ombrone, in Tuscany, which serves 56 municipalities.

Sarnese Vesuviano Srl:

this company has shareholdings in **Gori SpA**, operator of the integrated water service in ATO 3 – Sarnese Vesuviano, in Campania, which serves 76 municipalities.

Acque Blu Arno Basso SpA:

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

Acque Blu Fiorentina SpA:

holds shareholdings in **Publiacqua SpA**, operator of the integrated water service in ATO 3 – Medio Valdarno, in Tuscany, which serves 49 municipalities.

Acque Blu Srl:

55% owned by Acea SpA, it was established in December 2008 in accordance with the joint venture between Suez Environment and Acea SpA, for the purpose of gathering together the equity investments held by the two parties in various water management companies active in the Tuscan ATOs, within a single industrial entity.

Gruppo Crea:

it controls a number of water services management companies which operate in the ATOs of Massa Carrara, Lucca, 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 serve 38 municipalities, including Perugia and Assisi.

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. Runs the public and cemetery lighting systems in the municipality of Rome.

Acea Illuminazione Pubblica SpA:

established in 2010 for the purpose of dedicating it to the running and handling of the public lighting systems and the development of the service.

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 photovoltaic energy 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, CO₂ trading, RECS-COFER).

Acea Energia SpA:

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

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.

ENVIRONMENT**A.R.I.A. (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 treatment plant and associated landfill in Orvieto and a WDF (Waste-Derived Fuel) production plant in Paliano (Frosinone).

A.P.I.C.E. SpA:

established between Acea SpA and Pirelli & C. Ambiente Renewable Energy SpA, its corporate purpose involves activities within the sphere of the reuse and treatment of waste for the generation of energy, via fuel from high-quality waste (Q-WDF), and the purchase, sale, exchange, construction and management of industrial installations in the sector.

Aquaser Srl:

it is involved in the recovery and disposal of sludge which derives from the treatment of waste water. Aquaser controls the companies **Kyklos Srl** and **Solemme SpA**, both owners of composting plants. In March

2011, it acquired investment holdings in **ISA Srl (Innovazione Sostenibilità Ambientale)**, which is involved in logistics and 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

The **results for 2011**, down slightly with respect to last year, also considering the critical macro-economic context, confirm the economic-financial soundness of the Group and the income-earning ability of its business areas. **Core business operations**, having evaluated the trend in revenues (Euro 3,538 million) and the gross operating margin (Euro 655.8 million), maintained appreciable values. The operating result fell by 30% when compared with 2010, in particular due to the amortisation/depreciation of investments and prudent provisions, while the **final profit** for the Group, despite the presence of a tax burden of 41.2%, came to almost Euro 86

million, down slightly with respect to the Euro 92 million in 2010. **Consolidated revenues** amounted to Euro **3,538 million** (-1.9% compared with the Euro 3,605.7 million in 2010). In the **energy segment**, income came to **Euro 2,440.5 million**; the decrease of around Euro 115 million with respect to last year is essentially attributable to the change in the Group corporate scope, due to the winding up of the joint venture with AceaElectrabel. In the **distribution area**, revenues amounted to Euro 334.7 million (around Euro 305 million in 2010), determined by the adjustments acknowledged by the AEEG relating to previous year, the tariff reviews and the improved composition

Table No. 7 – ACEA GROUP INCOME STATEMENT AND EQUITY HIGHLIGHTS (2010-2011)

(in millions of Euro)	2010	2011
net revenues	3,605.7	3,538
payroll and related costs	274.9	280.6
external costs	2,672.9	2,599.9
operating costs	2,947.8	2,880.5
gross operating margin (EBITDA)	666.5	655.8
operating result (EBIT)	317.9	222.6
financial transactions	(98.9)	(120.6)
transactions on equity investments	2.6	57.1
pre-tax result	221.6	159.1
income taxes	85.4	65.6
net result	136.2	93.5
income/loss pertaining to minority shareholders	7.9	7.6
Group net result	128.3	86
<i>adjustment to fair value of discontinued activities</i>	<i>(36.2)</i>	
Group net result net of adjustment to fair value of discontinued activities being disposed of	92.1	86
shareholders' equity	1,381.3	1,311.5
invested capital	3,585.0	3,637.3

of the portfolio of customers served. The area of activities in question includes proceeds from the sale of energy produced by the **waste-to-energy plants**, amounting to Euro 26.5 million (Euro 22.3 million in 2010), and by **photovoltaic and co-generation activities**, for around Euro 5.5 million (Euro 2.3 million in 2010).

Income from **white**¹⁰, and **green**¹¹ **certificates and CO₂ trading**¹² amounted to **Euro 19.7 million** (Euro 47.4 million 2010): this reduction includes the balance of Euro 29.5 million in lower revenues for CO₂ trading and green certificates, due to the deconsolidation of the production companies disposed of, and around Euro 2 million in additional income for the energy efficiency certificates obtained by Acea Distribuzione.

Public lighting generated total revenues of Euro 77.9 million, of which Euro 71.3 for the service rendered to the City of Rome (Euro 65.7 million in 2010) and Euro 6.6 million from the tender contract for the management of public lighting in the municipality of Naples¹³ (Euro 2.9 million in 2010). Revenues from the management of the cemetery lighting service were stable at around Euro 7.3 million.

Revenues from **environment services** (waste treatment, landfill management, compost production and WDF), are in line with the previous year, amounting to Euro 28.9 million (Euro 28.1 million in 2010).

Water management activities in Italy and abroad generated sales turnover of **Euro 753.3 million** (Euro 690.9 million in 2010). The Group companies active in Tuscany, Umbria, Lazio and Campania, with Euro 717.4 million in revenues, reported growth of 7.5% when compared with the Euro 667.3 million in 2010 and the activities handled abroad (Peru, Honduras, Colombia and the Dominican Republic), via investment in local

companies, invoiced Euro 35.9 million, up by around 52% on last year¹⁴ (Euro 23.6 million in 2010) thanks to the revenues of Conazul in Peru¹⁵.

The **gross operating margin (EBITDA)** came to **Euro 655.8 million**, down slightly with respect to the Euro 666.5 million in 2010 (-1.6%). Observing the margins of the individual operational groupings, excluding the corporate area, it is revealed that:

- the **Water business segment**, essentially thanks to the proportional consolidation of the revenues of Acquedotto del Fiora and the additional proceeds obtained by Acea Ato 2 and Acque, reported growth reaching **Euro 323.7 million** (Euro 296.4 million as of 31 December 2010);
- the **Networks business segment**, considering the balance between lower revenues attributable to new agreements relating to the Public Lighting service contract with Rome City Council and the earnings consequent to the development of photovoltaic facilities and the acknowledgement by the AEEG of proceeds covering the additional costs for the distribution of electricity (specific company adjustment) relating to previous years, reported an increase to **Euro 269.6 million** (Euro 250.3 million as of 31 December 2010);
- the **Energy business segment**, as a consequence of the winding up of the joint venture AceaElectrabel, reported a decrease in the result, **Euro 61.4 million** (Euro 122 million as of 31 December 2010);
- the **Environment business segment**, despite the presence of lower revenues due to the shutdown of the Terni plant for technological and functional requalification work at the site (revamping), thanks to the bringing onto stream of two new lines of the waste-to-energy plant at S. Vittore del Lazio and the growth in the activities of the Aquaser Group, rose to **Euro 31.5 million** (Euro 23.1 million as of 31 December 2010).

¹⁰ **White Certificates** – more precisely Energy Efficiency Certificates (in Italian Titoli di Efficienza Energetica – TEE), certify fulfillment of energy saving targets gradually increasing over time pursuant to the Ministerial Decrees dated 20 July 2004 for energy distributors. The certificates are issued by the Electricity Market Operator according to the certification of savings ascertained by the Electricity and Gas Authority and can be traded on the market.

¹¹ **Green Certificates** are an instrument via which producers and importers of electricity from fossil sources comply with the obligation envisaged by Italian Legislative Decree No. 79/99 (Bersani Decree) to introduce an amount of energy deriving from renewable sources proportionate to the electricity produced (or imported) the year before, onto the network. In fact, compliance with this obligation can also be ensured by "purchasing all or part of the equivalent share", in other words "green certificates". The Electricity Services Operator, further to request and having carried out the necessary checks, issues Green Certificates to "green" energy producers and these can be traded on the market.

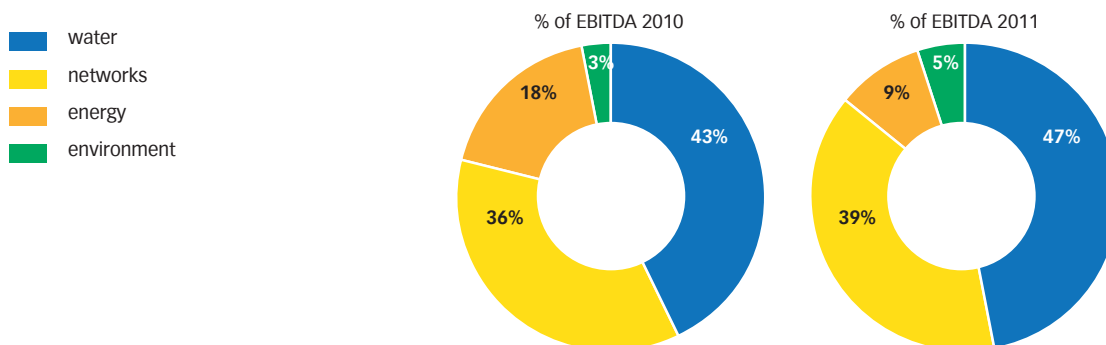
¹² The **Emission trading** (EU Directive 2003/87/EC) is a system for trading quotas of greenhouse gas emissions in force within the European Community which all industrial installations falling within the sphere of this directive are subject to; for each one, via the National Allocation Plans (NAPs), allocations are established which assign the right to emit corresponding tons of carbon dioxide, having to eventually resort to the emission trading instrument both in the cases of debts to be offset due to excessive emission with respect to the established limit and if the appropriateness of exploiting the greenhouse gas credits charged but not emitted into the atmosphere, has been ascertained.

¹³ The public lighting service in Naples, after having ceased at the end of 2008, was started up once again in Summer 2010 following the awarding of the contract by the municipal authority to the A.T.I. (temporary consortium) Citelum Napoli Pubblica Illuminazione scarl: Acea's interest in this consortium comes to 32.18%.

¹⁴ Revenues from foreign water management activities represent around 4.7% 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.

¹⁵ In 2010, Aguazul established Consorzio AZB-HCI (Conazul) together with local entrepreneurs; it owns 60% of this consortium which was awarded the contract to manage commercial services in the northern part of Lima.

Chart No. 5 – CONTRIBUTION OF THE BUSINESS SEGMENTS TO THE OVERALL EBITDA (2010-2011)



The **operating result (EBIT)** came to **Euro 222.6 million**, down considerably with respect to the Euro 317.9 million reported in 2010 (-30%). This should be placed in relation to both the **amortisation/depreciation**, totalling **Euro 264.7 million** (+11.5% compared with 2010), linked equally to investments already developed, such as those in the waste-to-energy area, and the changes in the corporate scope, and to the **provisions**, amounting to **Euro 113.7 million** (+140.5% when compared with 2010), associated mainly with the situation of uncertainty which the water companies Acea Ato 5 and Gori find themselves facing, essentially attributable to problems concerning tariff adjustments by the competent area

authorities, and, secondly, the provisions linked to voluntary lay-off procedures for staff underway in certain Group companies.

The **Group net result**, after allocations to minority shareholders, presented a **profit of Euro 86 million** (Euro 92.1 million as of 31 December 2010). The **net financial position** presented a loss of around **Euro 2,326 million** (Euro 2,203 million as of 31 December 2010) involving a change of Euro 122 million.

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

Table No. 8 - ACEA GROUP BALANCE SHEET FIGURES AND NET FINANCIAL POSITION (2010-2011)

(in thousands of Euro)	31.12.2010	31.12.2011
non-current financial assets (liabilities)	10,182	1,097
non-current intercompany financial assets (liabilities)	5,028	18,033
payables and other non-current financial liabilities	(2,490,696)	(2,298,916)
medium/long-term net financial position	(2,475,486)	(2,278,976)
liquid funds and securities	297,788	321,093
short-term amounts due to banks	(208,812)	(448,889)
current financial assets (liabilities)	(87,823)	(26,787)
current intercompany financial assets (liabilities)	270,612	107,727
short-term net financial position	271,764	(46,855)
total net financial position	(2,203,722)	(2,325,831)
shareholders' equity	1,381,263	1,311,457
invested capital	3,585,048	3,637,288

Table No. 9 – THE MAIN PROFITABILITY INDICATORS (2009-2011)

	2009	2010	2011
return on own capital			
ROE = Result for the year after taxation/shareholders' equity	--	9.9%	7.1%
return on capital invested			
Pre-tax ROIC = Operating result (EBIT)/invested capital	5.4%	8.9%	6.1%

Development and Strategic plan

The main variables which during 2011 affected the development of the Group's businesses are linked to the **winding up of the joint venture** with GdF Suez Energia Italia SpA, operative as from the second quarter of the year, and the referendum results concerning the **reform of local public services** (see dedicated box).

With regard to the first case, in the face of disposal of the trading activities and part of the group of electricity generation installations, **Acea redefined the industrial structures**, by means of setting up an electricity generation company under its full and direct control, specifically involved in renewable sources, along with a company tasked with the sale of

electricity and gas, also wholly-owned, with the consolidation of the network of sales companies on the free and protected markets.

With regard to the reform of local public services, subject to an inconstant evolution of the legislative and institutional context, Acea - which constantly oversees the potential impacts of these changes on the businesses involved - is committed to dealing with the development of a competitive outlook, as highlighted in the most recent public policies. Again with reference to the referendum results, the most significant effects to-date are perceived in the water sector and precisely with regard to tariff aspects (see the section *The tariffs*).

Box – Acea's new "energy" profile after the winding up of the JV with GdF Suez Energia Italia

Further to the steps taken last year by Acea and the partner GdF Suez Energia Italia - from the preliminary agreement between the parties in September to the formal drawing up of an outline Agreement in December - on **31 March 2011** the winding up of the energy partnership AceaElectrabel, operative since 2002, was finalised. Acea SpA is today the sole owner of the **energy sales** companies subject to separation, including the newly-established Acea Energia, and the new **generation** company, known as Acea Produzione SpA, which received the assets and activities functional to the management of the hydroelectric plants and the thermoelectric plants of Tor di Valle and Montemartini (including the commodities and district heating activities). The agreements between the partners also included the sale to GdF Suez Energia Italia of the trading company, the rest of the group of electricity generation installations, including the Acea holding in Tirreno Power (equating to 15%), the former ENEL generation company with almost 3,000 MW of installed production capacity.

This new set up revealed an essential change in the electricity production mix, to the benefit of production from renewable sources, and the need to endow oneself with an organisational structure aimed at supplying electricity and fuels on markets for the sales and production companies. Accordingly, the Energy management unit was set up, so as to oversee national and foreign electricity and fuel markets which, establishing commercial dealings with the leading Italian and foreign energy groups and with the main financial institutions, sees to the performance of purchase and sale activities on the main European energy exchanges. During 2011, with regard to volumes of electricity contractualised by Acea Energia, the coverage was carried out mainly by means of a supply agreement entered into with GdF Suez Italia prior to the date of the winding up of the joint venture, while with regard to supplies for 2012, the Energy Management unit has taken steps to activate physical and financial counterparts on the commodities markets for volumes which exceed 9 TWh in the face of a committed sales volume of more than 11 TWh.

Box – Local public services after the referendum

The referendum regarding the regulation of the formalities for handling and entrusting local public services of economic importance and on the subject of the remuneration of the water tariff, which concluded with an abrogative outcome in June 2011, challenged the legislative framework up till then in force on the various aspects.

Further to popular opinion expressed, the legislator - by means of Italian Decree Law No. 138/2011 converted into Italian law No. 216/2011 - launched a new discipline of said services, which more or less entirely retraces the previous discipline (Article 23 bis of Italian Decree Law No. 112/2008) but excluded not only the gas and electricity distribution service, regional railway transportation and the management of municipal pharmacies, as previously established, but also the water service. With regard to the handling and entrusting of all the other public services, the stance in favour of deregulation processes and assignment by means of competitive and public procedures is confirmed. In this manner, the intention is to pursue the widest possible involvement of companies, including public ones, and open up the sector of services of general economic interest to the market, ensuring quality of the services, transparency of the activities and absence of conflicts between public regulation functions and aspects of industrial management which are the responsibility of the operator.

The **Group Business Plan**, for the period 2011-2013, was approved in December 2010¹⁶, as presented below

Box – The 2011-2013 Business Plan

business area	strategy
water service management (integrated water service)	<ul style="list-style-type: none"> • consolidation of the leadership position in the Italian water sector, by means of taking part in tenders and developing partnerships; • optimisation of operations; • maintenance investments for the existing networks and plants envisaged in the various Area Plans; • further development of overseas management activities;
networks: electricity distribution, energy and photovoltaic efficiency	<ul style="list-style-type: none"> • maintenance investments on electricity distribution networks; • development of energy efficiency projects (e.g. smart grids); • development of the photovoltaic sector, co-generation and district heating; • growth opportunities in the gas distribution sector;
market: generation ¹⁷ and sale of electricity and gas	<ul style="list-style-type: none"> • revamping of the hydroelectric installations; • development of the sales activities and increase in the post-switching retention on the free market and supply of dual fuel; • development of a Customer Relationship Management (CRM) system;
waste-to-energy: electricity generation and environmental services	<ul style="list-style-type: none"> • extension of the existing waste-to-energy installations and revamping of two lines; • expansion of the biomass sector.

¹⁶ In February 2012, Acea SpA's Board of Directors approved the new 2012-2016 Business Plan, which steers the development of the Group along five strategic lines aimed at the systematic growth of the regulated activities, the implementation of projects in the Environment area, energy efficiency and new technologies for managing networks, operational and organisational efficiency and the improvement of the financial structure. See the company website (www.acea.it).

¹⁷ With regard to energy programming, it should be taken into account that further to the winding up of the joint venture between Acea SpA and GdF Suez Energia Italia SpA the company Acea Produzione SpA (100% owned by Acea SpA) received the assets and activities functional for the management of the hydroelectric plants and the thermoelectric installations of Tor di Valle and Montemartini, including district heating activities. In the generation sector, moreover, via the company A.R.I.A. (in which EALL, Terni En.A, Enercombustibili and Ergo Ena were merged via incorporation) and Acea Reti e Servizi Energetici, also wholly-owned by Acea SpA, the Group manages the waste-to-energy and photovoltaic plants.

The principles on which Acea's strategic plan is based, taking into account the new corporate boundaries formed following the winding up of the JV with GdF Suez Energia Italia SpA are: the **consolidation of the core businesses**, typically regulated network services, also exploiting any opportunities offered in the gas distribution sector; the targeted development of **investments in high-potential businesses** such as the environment, waste-to-energy and photovoltaic sectors; the increase of the level of efficiency in energy and gas sales activities, also via the development of dual fuel supplies; the search for **operating efficiency and internal growth**, to be

pursued by means of the rationalisation of the business organisation and the improvement of the operating functions of the industrial areas.

In **economic terms**, during the period covered by the business plan the Group envisages achieving annual growth in Ebitda of 11%, capable of reaching **Ebitda of Euro 865 million by 2013**, of which over 80% from regulated activities. The figures for investments will be likewise important and in the three-year period under review will reach a cumulative level of around Euro 1,300 million despite net financial borrowing contained at Euro 1,684 million as of 2013.

Box – Business development in 2011

Water

Italy and Abroad

- no new acquisitions or corporate equity investments were registered in the water sector in Italy or abroad but existing activities were consolidated which led to the improvement of the economic performances.

Networks

Distribution

- the pilot project for the development of an experimental Smart Grid in the Ponte Galeria area is at an advanced stage and conclusion is envisaged during 2012.
- the DigSILENT PowerFactory has been launched for the optimisation of the MV network.
- a memorandum of understanding has been signed with Enel for the development of electrical mobility in the city of Rome, with the joint definition of a standardised and interoperable recharging infrastructure.

Photovoltaic

- new plants were constructed and connected up during the year, leading to an installed capacity of around 52 MW at the end of 2011. The production of electricity came to 51.6 GWh, compared with 18.2 GWh in 2010.

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

- co-generation/tri-generation plants were built for an overall installed capacity of 10.2 MWt, 3.6 MWe and 3.2 MWf. The extension of the district heating network serving these plants came to around 5,000 m. The final planning was completed and authorisation was obtained for the construction of the plant relating to the co-generation installation for the "Europarco" office centre while final planning is underway for the installation of the Laurentino shopping centre.

Public lighting

- a total of 7,919 new lighting units were installed, of which 2,103 using LED technology; the digitalisation of the GIS (Geographic Information System) network, launched in 2009, was also continued.

Energy

Production

- following the finalisation of the agreement signed at the end of 2010 with GdF Suez, installed electrical power decreased considerably and the shareholding held in Tirreno Power was transferred. Production from thermo and hydroelectric plants came to around 343 GWh, almost exclusively from renewable origins (around 82%).
- energy produced by the waste-to-energy process involving WDF came to around 149 GWh (50% from renewable energy sources).

Sales

- customers on the Acea Energia free market rose further, with growth of 115% when compared with 2010. Specifically, the "dual fuel" segment of the free market, or rather that type of customer who receives the supply of electricity and gas at the same time, rose by more than 200% when compared with last year.

Environment

- two new lines were started up at the waste-to-energy plant of San Vittore del Lazio, out of the three which will be available once work has been completed; these treated a total of around 160,000 t of WDF during the year.
- revamping work continued on the Terni waste-to-energy plant, completion of which is envisaged during 2012.
- the Paliano (FR) WDF production plant, which was shut down for the whole of 2011, carried out technical tests for its start-up in 2012. Fully up and running, it will be able to produce 120,000 tons a year of WDF intended for the San Vittore del Lazio plant.
- the company SAO has planned the reorganisation of the quality compost production plant for 2012, with the implementation of a new co-generation section for the production of electricity from the anaerobic digestion of the organic fraction for an output of around 1 MW.
- the authorisation procedures launched by Aquaser in 2010 for the enhancement of the compost production plants (Kyklos and Solemme) are reaching the final stages. The production capacity will double when fully up and running, reaching around 190,000 tons per year with respect to the current 90,000 t.

Strategy and sustainability

Acea: the values and the contribution towards sustainability

Activities for the management and provision of essential public services, with evident **repercussions on the social and economic context**, grant the Acea Group a leading role for the development of the area it operates in. Equal importance should be given to a handling of the production cycles, the plants and the network infrastructures, capable of **containing**

the impacts on the natural environment which hosts the same. In conclusion, the same operational existence of the company, generates opportunities for employment and economic **development of side-line activities**. Acea is aware of the role played vis-à-vis the various players who interact with it and has adopted business governance aimed at transparency, correctness and corporate social responsibility (CSR).

The Group has endowed itself with **value codes, policies¹⁸ and management instruments** suitable for effectively

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
PROCEDURES, RULES AND VALUES	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 2001 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							•	•	•
REPORTING	Social Report and Environmental Report	•	•	•						
	Sustainability report (from 2002 GRI guidelines; from 2006 GRI-G3; from 2009 GRI-G3 + Utility Sector; from 2010 GRI –G3.1 + Utility Sector)				•	•	•	•	•	•
	COP drafting for Global Compact							•	•	•
FEEDBACK	Customer satisfaction	•	•	•	•	•	•	•	•	•
	On-line feedback			•	•	•	•	•	•	•
MEMBERSHIPS AND RATING	WEC membership					•	•	•	•	•
	CSR manager network membership						•	•	•	•
	Global Compact membership						•	•	•	•
	Sustainability rating			•	•	•	•	•	•	•

¹⁸ The full texts of the value codes - Acea Group Mission (1998), Environmental Policy (1998), Values Charter (2001), Tender Ethic Code (2003), Group Ethical Code (2004), Quality Policy (introduced in 1999 and, since 2005, regularly updated, in line with the UNI EN ISO 9001:2008 standard certification acknowledged Acea SpA), Protection Policy (2009) and Policy for health and safety in the workplace (2010 edition) - are available of the company intranet and on the website www.acea.it.

implementing the responsible governance of the company, along the three lines of economic, social and environmental sustainability, and each year bears witness to this commitment describing it in the sustainability report, in terms of quality and numbers. Following the theoretical and institutional debate underway and sharing the experiences regarding corporate social responsibility are fundamental elements for updating the business culture and guiding the management approaches towards sustainable development. In this context, 2011 saw an intense exchange of views between experts and institutions on certain aspects: the evolution of the CSR concept, the

integrated business reporting, the convergence of the international standards in favour of the growth in corporate responsibility and the surpassing of the economic-financial parameters for the assessment of quality and welfare. With reference to the afore-mentioned matters, with regard to 2011 mention should be made of the **new communication of the European Commission on corporate social responsibility** and the collaboration project between **Istat and Cnel** for the purpose of defining multi-dimensional statistical indicators for **measuring the progress of the Italian society** (see the related boxes).

Box – COM(2011) 681 - *Renewed EU strategy for the period 2011-14 regarding CSR*

As already announced last year, in October 2011, the European Union Commission published the **new communication on CSR** - COM(2011) 681 - by means of which it updated the contents and references previously expressed on the subject - with the 2001 Green Paper - laying the **bases for the related EU strategy for the 2011-2014 period**. The Commission highlighted the presence of the aspect of corporate social responsibility in the majority of the EU policy initiatives, as confirmation of the **transversal nature of the subject**, and its **growing and shared importance at international level**, as confirmed by the most recent references in the measures of the ONU, which in 2011 disclosed the new Guideline Principles on Companies and Human Rights, and the OECD, which updated the Guidelines for Multinationals. The new definition of CSR as **«responsibility of the companies for their impact on society»**, extends the commitment of the companies to objectives for the **creation of value shared** between the company and its stakeholders, and for **risk management**, aimed at identifying, preventing and mitigating the possible adverse effects of corporate conduct on society, widening the sphere of involvement of the companies as far as the supply chain. The Commission once again **emphasises** the **benefits** gained from CSR both for the **general competitiveness of the entrepreneurial system** and the **pursuit of sustainable development** and the social market economy and presents a **plan of action** to be implemented by the end of 2014, aimed at furthering the achievement of good practices - for example via the creation of multilateral platforms and a European CSR award - and at increasing market appreciation for CSR - by means of the furthering of policies for sustainable production and consumption and the improved integration of the socio-environmental aspects in public tenders. In conclusion, acknowledging the development of the international principles and stances regarding CSR (ISO 26000, Global Compact, OECD guideline principles) and hoping for convergence and integration in EU policies, the Commission invites leading European companies to contemplate at least one of the afore-mentioned instruments in their approach to CSR by the end of 2014.

Box – The twelve dimensions of fair and sustainable welfare

Over the last few years, the degree of complexity achieved by the company has fuelled the exchange of views on the appropriateness of **reviewing the indicators commonly used for measuring growth and progress**, so as to adequately seize and interpret the developments of the reality. The debate has focused on **gross domestic product (GDP)**: quantitative measurement of the macro-economic activities, used, for some time, as a reference parameter for the valuation of economic-social growth. Today more than ever, the awareness of having to consider multiple dimensions - not only economic but also environmental, social, relational, statutory - and the misalignment between the performance of the macro-economic variables and the perception that citizens have of welfare, render reflection on the interpretation keys most suitable for comprehending the phenomena underlying the subsequent decision on public policy, inescapable. Accordingly, in Italy during 2001 an agreement between **Istat and Cnel** was furthered, used to implement a **multidimensional approach of "fair and sustainable welfare"** (BES) for the company, which supplements the economic activity indicators, typically GDP, with other **non-economic indicators**. An initial outcome of the collaboration, which placed Italy in the group of countries at the forefront for the commitment with regard to the subject matter, together with France, Germany and the UK, led to the definition of **12 spheres of particular importance for the welfare of citizens**. On the basis of these, which will be consolidated or otherwise by means of public consultation extended to experts, civil society and individual citizens, high statistical quality **analytical indicators will subsequently be processed**, to be used to enhance the gauging and analysis instruments available to future public decision makers so as to pursue collective development policies. The **12 dimensions**, or spheres, of wellbeing identified are: **environment; health; economic welfare; education and training; work and conciliation of lifestyles; social relationships; safety; subjective welfare; landscape and cultural heritage; research and innovation; quality of services; politics and institutions**.

Sharing of the corporate social responsibility themes

A responsible business choice becomes the definition of company policies and strategies aspiring to values of active feedback and balanced exchanges of views with the reference stakeholders and the achievement of operations in harmony with the legitimate requests revealed. The opportunities for interaction with qualified parties and reflection on possible future scenarios in the economic, social and environmental sphere represent formative occasions for the company which intends to improve its business culture, combining the ability to generate profit with that of pursuing sustainable development. Accordingly, Acea participates in the most accredited networks and the initiatives of greatest interest organised by academic circles, civil society, institutions or other national and international companies, offering its contribution and assimilating the most functional incentives.

Among the 2011 ventures, Acea:

- 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, Acea was involved in a work group focused on environmental issues and occupied in the definition of environmental-type requisites to be introduced progressively in the supplier qualification systems. The aim of the encounters was also to divulge and encourage a preventive approach vis-à-vis the environmental challenges and a pro-active approach in the spreading of technologies which respect the environment.
- took part in the 2011 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 Corporate Citizenship organised by Fondaca, a master in Management and corporate social responsibility organised by the Pontificia Università San Tommaso d'Aquino-Angelicum and a master in Management and regulation of sustainable energy organised by LUISS;
 - contributed to the initiative entitled Management by Ethics, organised by Consorzio Elis and by the Pontificia Università della Santa Croce, comprising a cycle of encounters dedicated to top managers of leading Italian companies with the aim of furthering conciliation between managerial practice and ethics serving the individual, playing on the principles of CSR;
 - continued collaboration in the international CAT-MED project and bore witness at Ecolpolis, the event dedicated to the presentation of eco-sustainable solutions for the urban environment which in 2011 proposed a showcase of best practices to territorial managers who have the task of applying sustainable development choices in the areas managed;
 - followed the main conventions and seminars on various subjects pertaining to sustainability.

Box – The research CSR Online Awards Italy 2011

Over the last few years, the on-line communication of the companies with regard to their commitment and on the performances achieved in terms of society and environment, ethics, governance and dialogue with the stakeholders, also took on specific importance. Within this sphere, and for the second year running, Acea was assessed together with other businesses included in a panel containing the 50 leading Italian listed companies. **CSR Online Awards Italy 2011** research, carried out by Lundquist, was based on a protocol made up of 79 appraisal aspects, defined by more than 300 CSR experts at international level, pertaining to 3 specific areas of survey on websites of the companies (contents, surfability and usability, degree of dialogue and involvement), used to analyse the approaches of the latter towards social responsibility.

In this ranking, Acea remained more or less stable, rising one place and emerging as in 28th position in the classification, with 21.5 points.

The study, as witnessed by the average score received by the components of the sample under review, 35.4 points out of 100, practically unchanged with respect to 2010, reveals how there is still ample margin for improvement in the ability to provide an adequate response to the requests for information made by the stakeholders regarding non-financial aspects (environmental, social and governance) using the potential of the web. The research also revealed those which, according to the experts, are the more greatly appreciated elements in on-line communication of CSR so as to build relationships of trust with the users: the adoption of international CSR guidelines; audit processes carried out by external bodies; constant, easy and prompt communication of information on governance and corporate policies; also by means of the use of social media, for the purpose of structuring and qualifying dialogue with the stakeholders.

The 2011 sustainability objectives

The Group's sustainability objectives are shown, in summary form, in a layout which shows **the challenges, the growth prospects and the action undertaken** during the year, placing them in relation to the interests of the stakeholders. These objectives, consistent with the matters indicated in the 2011-2013¹⁹ Business Plan and the winding up of the JV with GdF Suez

Energia Italia SpA which took place in 2011²⁰, were drawn up by the heads of the business segments and the Divisions involved and approved by the Managing Director. Action carried out in 2011 for the pursuit of the objectives, mentioned in the layout, are described with greater accuracy in the sections of the report dedicated to illustrating the Group performances.

Challenges	Objectives	Main actions in 2011
Shareholders		
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	Maintain leadership in Italy in the water sector	<p>The water sector, with a population served of around 18 million individuals in 2010 (8.5 million in Italy and 9.7 million abroad), improved its economic and operating performances during the year.</p> <p>Both volumes of drinking water introduced in total onto the network, equating to 1,254 Mm³ (+3 Mm³ with respect to 2010) and volumes of waste water treated, (equating to 936 Mm³ (+7 Mm³ with respect to 2010) increased in Italy. The companies in the water area carried out a total of 1,102,737 analytical controls so as to monitor the quality of the drinking water distributed; these controls were higher in number than those envisaged by legislation. Consequently, the gross operating margin in the sector rose by 9.2% when compared with 2010, amounting to Euro 323.7 million and contributed 47% to the Group's gross operating margin.</p>
	Develop the electricity generation capacity, developing the contribution from renewable sources, and increase the sales activities on the deregulated market, inclusive of dual fuel	<p>Work was launched for the modernisation of the Salisano and G. Marconi hydroelectric plants belonging to Acea Produzione SpA, for the purpose of achieving the qualification of "Plant fuelled by renewable sources" for the acknowledgement of green certificates.</p> <p>Energy production from photovoltaic sources came to 51.6 GWh (+180% compared with 18.3 GWh in 2010).</p> <p>Ecogena achieved total installed capacity from co-generation of 3.6 MWe and 10.2 MWt. With regard to sales activities, seen to by Acea Energia SpA, growth continued in the free market segment, with an increase of 115% in the number of customers with respect to last year; there was also a rise in the gas market, "mass market" segment, with an increase in customers of 201% on 2010.</p>



¹⁹ The 2011-2012 Strategic Plan was approved by Acea SpA's Board of Directors in December 2010 and remained in force throughout 2011. During the meeting held on 22 February 2012, the Board of Directors approved the Group Business Plan for the period 2012-2016.

²⁰ Defined in the last quarter of 2010 and finalised in 2011, it confirmed the separation of the sales, trading and energy production activities participated in before. Acea received the sales and hydroelectric production activities and the Tor di Valle and Montemartini plants. Acea Energia holding, Acea Energia SpA and Acea Produzione SpA, wholly-owned by Acea SpA, are operative; therefore the figures for the energy area, up until 2010 calculated proportionally, are considered 100%.

Challenges**Objectives****Main actions in 2011****Shareholders**

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

Extend and modernize electricity distribution networks and public lighting systems, improving efficiency; further and activate electric mobility in the area of Rome city; assess the appropriateness of extending the network management business to the gas sector

The activities envisaged in the framework of the strategic "Road Map" project continued, and after four years have been completed, aimed at improving the continuity performances in the supply of electricity. The Electricity and Gas Authority (AEEG) **once again awarded Acea Distribuzione** for the positive performances achieved and, with reference to the final 2011 figures it is envisaged that the same trend in improvement and rewards will be achieved in 2012.

The Smart Network Management System project, aimed at supplementing the company technologies with consequent optimisation of the potential and increase in efficiency, safety and quality of the services, presented last year to the Ministry for economic development (MISE), was admitted in 2011 to the contractual stage preparatory for the disbursement of the soft loans (FIT). The Smart Grid project, chosen by the AEEG and included among the pilot projects receiving incentives, was launched in January 2011 and its completion is envisaged during 2012.

In the public lighting sector, a total of 7,919 new lighting units were installed during the year (+66% with respect to 2010) and the application of LED technology was increased (2,103 lighting units during the year); the digitalisation of the GIS (Geographic Information System) network continued, reaching around 30% of the total. The Networks industrial area paid particular attention to the subject of electric mobility. By virtue of the Memorandum of Understanding signed with Enel SpA in February 2011, Acea collaborates with the corresponding Enel structures to jointly develop a standard and interoperable recharging structure for electric vehicles, as well as to launch and carry out pilot projects on electric mobility in the area of the city of Rome and other Italian cities.

Develop the waste-to-energy business

Acea has confirmed itself to be the 5th leading operator in Italy in the waste-to-energy sector and on a more general note in waste management services, with around 820,000 tons a year of waste treated (+49% compared with the 550,000 t in 2010). The Environment business segment (waste-to-energy and waste management services with added value) generated an EBITDA of Euro 31.5 million, up considerably with respect to the Euro 23.1 million last year.

At the waste-to-energy plant located in Terni (fuelled by pulper from the paper industry), revamping work continued, having been launched in 2010; completion should take place by the end of 2012. The project for the enhancement of the waste-to-energy plant located in San Vittore del Lazio, authorised to treat 300,000 tons a year of WDF, is being completed, with two out of the three lines running.

At the plant for the production of WDF, located in Paliano, at the end of 2011 technical tests were carried out aimed at starting up the plant once again in 2012, after its year-long shutdown.

SAO SpA, active in the selection, treatment, storage (landfill), recovery and disposal of municipal and special non-hazardous waste, with plants in the Municipality of Orvieto, planned the renovation and functional reorganisation of the treatment, waste recovery and quality composting plant in 2012, by means of the implementation of a new co-generation section.

The authorisation procedures launched in 2010 for the extension of the two composting plants (construction of new anaerobic digestion sections) managed by the Aquaser Group and located in Monterotondo Marittimo, Tuscany, and in Aprilia, Lazio, close to the main water companies whose waste water sludge they treat, continued during 2010 and are currently being completed. The work will make it possible increase the potential of the two plants in a very significant manner.

Challenges	Objectives	Main actions in 2011
Shareholders		
Maintain the governance system at optimum levels of transparency and correctness	Further the evolution of the corporate governance	<p>The on-going improvement of Acea and the Group's compliance has been ensured in observance of the principles and recommendations of the Code of best practice for listed companies and national and international best practices.</p> <p>The procedure for the assessment of related party transactions has been monitored, with the creation of the related database. Two external members of the Ethics Committee have been appointed, after this committee resumed full operations in 2011; the remuneration policy for executive directors and executives with strategic responsibility was approved. Acea SpA's General Manager also came into office, established and appointed at the end of 2010, and the new organisational macro-structure of the Group was approved.</p>
	Monitor the financial disclosure addressing the market, by means of a dedicated division which handles relations with analysts, Italian and international investors and sales, for the purpose of ensuring a continual, prompt and useful flow of information for the correct assessment of the income-earning prospects of the company and the Group	<p>The results of the periodic financial statements were presented promptly to the financial community, also via direct meetings with Italian and foreign investors.</p> <p>During 2011, the Investor Relations unit held around 60 one-to-one encounters with Italian and international investors, as well as conference calls with analysts that cover Acea stock and extended presentations in the main national and international financial marketplaces.</p> <p>Relations with ethical finance analysts also continued.</p> <p>The communication of economic-financial information relating to the Group was constantly updated in the shareholders' section of the company website.</p>
Constantly monitor the trend of the stock on financial markets	Reach a unanimous solution with the partner GdF-Suez with regard to the winding up of the JV	<p>Further to the Outline Agreement, signed in December 2010 between Acea and the partner GdF-Suez with regard to the winding up of the energy partnership AceaElectrabel created in 2002 (generation, trading and sales), and after having obtained the authorisations from the competent anti-trust authorities, the transaction was finalised in the first quarter of 2011, with the effective restructuring and separation of the activities invested in before. The Acea Group holds 100% of the company tasked with the sale of electricity and gas (Acea Energia SpA) and 100% of Acea Produzione SpA, which received the assets and operating activities of the hydroelectric plants and the turbogas plants of Tor di Valle and Montemartini.</p>
	Promptly inform Acea senior management of the stock performance, comparing it with the market trend and that of comparable utility companies	<p>Periodic analysis of Acea stock, the Italian and European comparables and the main national and international stock market indexes was carried out.</p>
	Consolidate the positive opinions on Acea expressed by the rating agencies	<p>A stable and regulated business together with a solid financial structure has made it possible for the rating agencies to assign Acea the best ratings in the sector: Fitch: A (7 Oct. 2011); Moody's: Baa1 (14 Oct. 2011); Standard & Poor's: A- (7 Dec. 2011).</p>

Challenges	Objectives	Main actions in 2011
Customers and the Community		
Respond to the growing expectations of the customers, in terms of distinctive quality of the services provided and customer care, observing the principle of saving.	Further the quality of the services provided: integrated water, electricity and public lighting	<p>In 2011, Acea Ato 2 achieved UNI EN ISO 9001: 2008 Quality Certification with reference to activities on networks and plants.</p> <p>The continuity parameters for the supply of the integrated water service in ATO 2 - Central Lazio were monitored, confirming a maximum positive performance level; the analysis on the quality of the water distributed confirmed the full compliance with the legal limits.</p> <p>Acea Distribuzione continued with the specific activities which aim to improve the service quality and satisfactory results have been accomplished, improving trend-wise, with particular reference to the continuity performance for the electricity supply.</p> <p>With regard to public lighting, the 2011 performances relating to the average timescales for restoring the service in the event of faults all improved.</p>
	Improve accessibility to services and the efficacy of the contact channels, encouraging their use by customers	<p>After the change of the logo, a restyling of the public hall was carried out according to the criteria of the new corporate identity. The functionality of access to the desks was reviewed at the same time. The advertising campaign for Acea Energia was created, with the first commercial proposals.</p> <p>During 2011, the CRM (Customer Relationship Management) system was brought onto stream for the handling of complaints made by Acea Ato 2 customers.</p> <p>With regard to the channels dedicated to the sale of electricity, Acea Energia has enhanced the free-phone number dedicated to sales proposals, which now permits customers who are interested to directly subscribe to the chosen proposal, and has totally overhauled the website with the prospect of progressively increasing the self-service area so as to even include on-line payment.</p> <p>Acea free-phone numbers received a total of around 3.5 million calls in 2011, up 30% with respect to the 2010 figures. 198,983 customers were dealt with at the counters at central headquarters, up 21% with respect to last year, and the service levels (numbers issued/customers served) were confirmed as very high: between 97% and 98%.</p>
	Promote and turn to account, via suitable disclosure, the quality of the drinking water supplied in Rome	<p>In order to improve and make communication on the quality of the water distributed more transparent, the validation of the system was completed for the determination and display by means of panels of the mineralisation characteristics of the water distributed for drinking use in Rome; this system will be started up over the next few years.</p>
	Regularly monitor the customer satisfaction with regard to the services supplied	<p>Two customer satisfaction survey sessions were carried out during the year (in the Spring and in the Autumn) on the water, electricity and public lighting services managed by Acea Group companies in Lazio, Campania, Tuscany and Umbria. The results of the surveys, carried out - via the overall performance of 34,000 interviews - by an institute specialised in public opinion polls with the centralised monitoring of a Division of the holding company, were shared with the operating companies.</p>
Express the Public Utility mission also by means of involvement in the social context	Contribute to the wellbeing of the community	<p>By means of sponsorships and the disbursement of donations, support was guaranteed for civil society in the areas in which the Group operates. The events held mainly concerned the sporting, cultural, institutional and solidarity sectors.</p>

Challenges**Objectives****Main actions in 2011****Suppliers**

Simplify the purchasing procedures and also develop the qualitative, environmental and safety aspects in the supply of goods, services and work, maintaining a good price/quality ratio

Improve the efficiency of the supply chain

Following the approval of the new Group macrostructure, a Division was set up in 2011 dedicated to Purchasing and Logistics with measures which changed the structure and operating procedures, so as 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 commodities' category. This reorganisation also concerned the Supplier qualification systems which were separated from the Purchasing division so as to make the two activities totally independent. New purchasing strategies were defined during the year and tested in certain commodities' areas, with an approach oriented at "category management"; the internal procedures linked to the purchasing process were reviewed with a view to greater administrative streamlining; the SAP environment was adapted so as to also be able to handle work tender contracts via the application, bringing together the procedures for the request and issue of orders with the goods' and services' contracts.

Supplement the aspects of quality and safety in the assessment of the companies who are work contractors for Acea

In the project for the reorganisation of the Purchasing division, particular importance was given to the aspects linked to the assessment of safety and quality, and for such purposes a system for the Vendor rating of all the suppliers was implemented, due to enter into service in 2012; this will measure the performances of the suppliers assessing the different operating and commercial ones, as well as those relating to work safety and environmental protection.

The application of Vendor rating continued within Acea Distribuzione during 2011, for work in the energy area. The system, already applied for some years and centred on the valuation of quality and safety parameters, continues to encourage the improvement of the performance of suppliers of work services; in fact, a further increase in the average reputation index of the companies assessed was revealed, reaching 91.5 in December 2011.

Human Resources

Focus on efficiency and professional qualification of the employees

Help the human resources grow, by means of resource assessment systems and adequate training plans

During the year, the guidelines were defined for the meritocratic policy and the MBO system based on the development of the resources on a consistent basis with the achievement of the assigned objectives, the individual assessment of the performance and the assessment of the distinct skills.

Training plans were also drawn up and achieved on a consistent basis with the needs expressed by the managers and the computerisation of the training process was finalised (requirement surveying; construction of training plan; registration of training used).



Challenges	Objectives	Main actions in 2011
Human Resources		
Ensure a satisfactory internal climate, by means of observance of workers' rights	Encourage an industrial relations model based on consensus or on the prevention of conflict	<p>During the resumption of industrial relations, after the breakdown in talks in mid 2010 on the subject of the 2009 results bonus paid to the employees of the "historic" Group companies, the Parties entered into two agreements (one relating to the "historic" companies and one to Acea8cento) concerning the extraordinary incentive, paid in February. Downstream from the consolidation of the legislation on facilitated rates applicable to the salary components attributable to increases in productivity, innovation, efficiency, etc, during 2011 a memorandum of agreement was entered into valid for the entire Group which permitted the "detaxation" of the portions of variable remuneration relating to the ends described above, to the economic advantage of the workers concerned. At the time of signing the new Gas-Water C.C.N.L. (national collective labour agreement), a Protocol was also signed concerning employment protection in the processes for the transformation of the two sectors, to be implemented for the transfers of staff between operators.</p> <p>The winding-up of the JV with Gdf Suez Energy Italia, finalised by means of Outline Agreement in December 2010, took place positively during the first quarter of 2011, after a trade union consultation phase not without critical moments.</p>
Improve the health and safety in the work place levels	Implement an efficient health and safety in the workplace management system within all the main operating companies (Sgsl)	<p>All the Group companies comply, autonomously and as directly responsible, with current legislation regarding safety management. Specific training courses regarding safety were provided to the Group's staff.</p> <p>In 2011, a formalised Sgsl (work safety management system) was implemented within 12 companies, including the operating companies whose employees are more greatly exposed to the risk of accidents. In particular, Acea SpA and the 3 companies created following the winding up of the JV with GdF Suez Energia Italia - Acea Energia Holding, Acea Energia and Acea Produzione - achieved Safety management system certification in accordance with the OHSAS 18001:2007 standard.</p> <p>The total number of accidents decreased with respect to last year, as did the frequency index, while the severity index remained stable.</p>
Environment		
Contribute towards cutting down CO ₂ emissions into the atmosphere	Increase the portion of electricity generation from renewable sources	<p>Electricity produced from photovoltaic solar sources in 2011 came to around 51.6 GWh (+180% compared with the 18.3 GWh in 2010), thanks to the plants constructed and connected up in 2011 by Acea Reti e Servizi Energetici, which led to a total installed capacity of around 52 MW.</p> <p>Generation from hydroelectric sources came to around 321 GWh, compared with 500 GWh in 2010. This decrease was mainly attributable to the plant shutdown of two installations for repowering.</p> <p>Among the production sites managed by the Environment area, the Terni waste-to-treatment plant, the plants and the service sheds managed by SAO in Orvieto, and the Paliano plant are already equipped with photovoltaic panels on the surface areas; it is also envisaged that panels will be installed on the surface areas at the waste-to-energy plant at Vittore del Lazio and the composting plants of Aprilia and Monterotondo Marittimo. Furthermore, the projects for expanding the sites envisaged new anaerobic digestion sections, which will recover energy from biogases produced by the composting processes.</p> <p>Acea Produzione took part in due diligence activities for the acquisition of small/medium sized hydroelectric plants/projects, mainly located in central Italy.</p>

Challenges**Objectives****Main actions in 2011****Environment**

Contribute towards cutting down CO₂ emissions into the atmosphere

Develop co-generation, tri-generation and district heating activities

At the end of 2011, co-generation/tri-generation plants (production of electricity, heating and cooling energy) built by Ecogena achieved an overall installed capacity of 10.2 MW_t, 3.6 MW_e and 3.2 MW_f. The extension of the district heating network serving these plants came to around 5,000 m.

The design and planning was finalised and authorisation obtained to construct the co-generation installation for the "Europarco" office centre, and planning is underway for the co-generation installation of the Laurentino shopping centre; furthermore, design and planning has been completed and the sole authorisation procedure launched for the construction of the Sogei tri-generation plant, with electrical power of 2 MW_e and cooling power of 1.4 MW_f.

The construction of the hybrid gas and oil tri-generation plant is envisaged for 2012 (around 1.6 MW_e and 5.2 MW_f), serving the Cinecittà World theme park being built in Castel Romano.

Contribute towards improving efficiency in the end uses of electricity (Italian Ministerial Decree dated 20/07/2004 and subsequent amendments)

Measures for improving efficiency in the end uses of energy, already achieved by Acea Reti e Servizi Energetici over the last few years, ensured a certified reduction in 2011 of consumption care of the customers served for around 169,430 toe compared with a fixed obligation of 143,702 toe.

Achieve energy efficiency within the Group companies

Within the sphere of purveying goods which consume energy, the Co-ordination of the Energy Managers of the Group established models for assessing the proposals, which once fully up and running will take into account "life cycle costing".

A study was also launched for introducing criteria for entrusting the "Energy Service" in the main Group buildings, which take into account efficiency measures.

Once again in 2011, energy efficiency measures were achieved in the water companies, thanks to which an overall saving of around 10,000 MWh was accomplished.

With regard to the Environment area, Energy Management activities were envisaged in the company A.R.I.A. (Acea Risorse e Impianti per l'Ambiente), so as to oversee the energy efficiency objectives, in co-ordination with the corresponding units of the other Group companies; furthermore, the new San Vittore waste-to-energy lines are equipped with specific technologies aimed at achieving energy efficiency.

A Memorandum of Understanding was entered into between Acea SpA and Fiat Group Automobiles SpA for the development of pilot projects and experiments on electric mobility, thanks to which Acea Distribuzione replaced 40 fuel-driven vehicles in its fleet with the same number of electric vehicles, achieving an average energy saving of around 50%.

Improve the public lighting plants with a view to technical-environmental efficiency

During 2011, an agreement was signed for the adaptation of the Service Agreement between the City of Rome and Acea SpA. During the year, 2,103 lighting units using LED source were installed (+53% compared with 2010), that are together new units and modernisations, including the "Alta Produttività" plan; the lighting efficiency and average lamp output figures were also improved.



Challenges	Objectives	Main actions in 2011
Environment		
Contain the environmental impacts of the activities	Implement formalised Environmental Management Systems (UNI EN ISO 14001:2004, Emas registration)	In the Energy business area, during 2011 Acea Produzione renewed its UNI EN ISO 14001:2005 standard certification for the offices at the operating headquarters in Rome, for the two thermoelectric turbogas plants - Tor di Valle and Montemartini - and for 2 hydroelectric plants - Salisano and G. Marconi - out of the total 7, including the minor installations. Extension of environmental certification is underway for the Heating Services Unit and for another two hydroelectric plants (A. Volta and G. Ferraris). In the Networks business sector, Acea Reti e Servizi Energetici obtained UNI EN ISO 14001:2004 certification and Acea Distribuzione carried out activities preparatory to the implementation of an Integrated safety, quality and environmental management system. In the Environment business area both UNI EN ISO 14001:2004 certification and EMAS registration were confirmed in 2011 for the 2 waste-to-energy plants in Terni and San Vittore del Lazio; SAO, operating in the environmental sector (landfills and composting plants), confirmed its UNI EN ISO 14001:2004 certification and obtained EMAS registration in September 2011. Furthermore, the procedure for obtaining registration is underway for the Aquaser Group companies. In the Water business sector, Publiacqua extended certification as per the UNI EN ISO 14001:2004 standard to the entire corporate sphere; the Acque Group companies maintained Best4; with regard to companies overseas, Consorzio Agua Azul, operative in Lima, confirmed integrated quality-environment certification (ISO 14001 and ISO 9001).
	Reduce odorous emissions from the waste water treatment plants	The space-time distribution of the odorous impacts in the areas inside and outside the main Rome treatment plants was monitored in 2011 by means of ordinary, extraordinary and night-time campaigns, assessing the air quality odour indicator (hydrogen sulphide) The data collated, besides enhancing the outstanding database, supports both the definition of any mitigation measures and the verification of the consequent results.
	Increase waste recovery/recycling activities	The bringing onto stream of the new San Vittore del Lazio waste-to-energy lines made it possible to pass from around 90,000 tons a year of recovered waste in 2010 to around 160,000 tons a year in 2011. The overall quantity of waste deriving from the treatment of water, handled by the Aquaser Group, passed from 188,000 tons in 2010 to 205,000 tons in 2011, an increase of 9%. Furthermore, 4.3% of the 205,000 tons was sent for recovery via direct spreading for agricultural purposes, 77.6% was sent for recovery via composting and 18.1% was sent for final disposal. The separate collection of office waste (paper, cardboard, toner) continued at the offices of the central headquarters in Rome, which accommodates around 1,300 employees, involving around 31,900 kg of material sent for recycling by authorised firms.
Reduce wastage and encourage the correct use of water resources	Reduce water losses on the water distribution networks and raise the awareness of customers and the community with regard to correct use of the resource	During 2011, mapping, modelling and loss detection activities were completed along with the definition of the optimum set ups of certain districts of the distribution network in the municipalities of Riano, Monterotondo, Santa Marinella – Santa Severa area, Grottaferrata, Cerveteri and Subiaco, falling with ATO 2. The activities made it possible to reconstruct the structure of the networks and their rationalisation, with a preliminary assessment of the recovery obtainable. Various communications initiatives continued for raising the awareness of customers and the community with regard to the correct use of the water resource.

Challenges	Objectives	Main actions in 2011
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Environment

Reduce waste and encourage the correct use of water resources	Make adequate quantities of drinking water distributed available by means of treatment processes for non-compliant water	In order to increase the availability of drinking water in certain municipalities falling within ATO 2, Acea Ato 2 has set up suitable treatment processes for the removal of specific contaminants (arsenic and fluorides) present due to the volcanic nature of the area. During 2011, pumping, treatment and purification plants were built, making it possible to reinstate compliant parameters in the various areas. The functioning of the treatment plants was monitored while running so as to optimise the performances and systems were validated for the on-going control of the fluoride and arsenic parameters.
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Safeguard the quality of the drinking water distributed and of the water returned to the natural environment	Guarantee the good quality of the drinking water distributed and protect the levels of excellence already achieved	In 2011, a total of 1,201,737 analytical checks were carried out by the water companies, in order to monitor the quality of the drinking water distributed (of which 337,529 in the area managed by Acea Ato 2 alone). Laboratori, UNI CEI EN ISO/IEC 17025 certified, supports various Group companies carrying out first and second level controls.
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Safeguard the natural balance of the receiving water bodies	In addition to the monitoring of the concentration of pollutants in the effluent of the treatment plants, on-going monitoring continued in 2011 on the qualitative-quantitative features of the rivers Tiber and Aniene. The monitoring network, complementary to the accurate sampling activities, is structured over 4 control units for the determination of the chemical-physical-hydraulic parameters. The data monitored is sent in real time to the Acea Ato 2 Operations Centre.
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The Company

Consolidate a financial structure capable of providing solidity for the company and constant security over time	Maintain the solidity of the present financial structure also in the current moment of serious market crisis	The financial restructuring project via the increase in credit facilities, the shift of borrowing to long-term and the optimisation of the management of working capital via implementation of a receivables securitisation programme, have protected the company both from the credit crunch and the increase in rates/spreads. Therefore, the Group has not been affected by the crisis underway at financial level, permitting the realisation of scheduled projects and maintaining an average cost of borrowing under the best market performers.
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Extend the fields of activity in sectors adjacent to the core business with high growth potential	Enhance the environmental sector and the waste management related services	The Environment business segment has set itself the aim of insourcing, thereby cutting costs, the disposal of the waste and water produced by the waste-to-energy plants, achieving specific plant engineering dedicated to the treatment of these subproducts and in 2011 set up a team dedicated to the identification of technical solutions. Furthermore, during the year the Aquaser Group acquired control over ISA, by means of which it was able to start direct activities for the transportation of treatment sludge and accessory services. ISA avails of 8 vehicles, which will become 14 in the two-year period 2012-2013, thereby making it possible to reduce recourse to outside contractors.
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Challenges**Objectives****Main actions in 2011**

The Company

Turn the Group companies into cutting-edge enterprises with regard to technological, process and product innovation

Carry out research and process management and innovative technology experimentation, exploiting best company practices

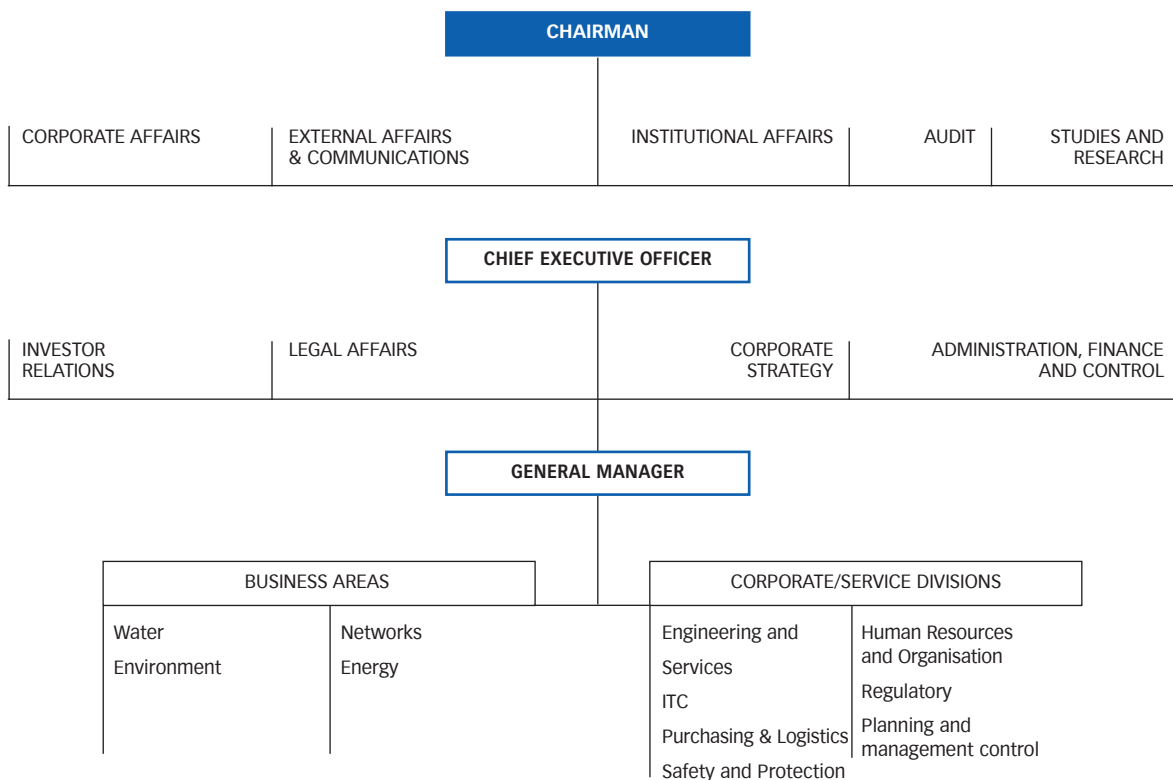
In the Water area, each year LaboratoRI develops numerous research projects aimed at technological innovation, in synergy with other Group companies and with research bodies. Achievement in 2011 included the completion of the study, on a pilot scale, into the treatment of waste water using SBBGR technologies (Sequencing Biological Biofilter Granular Reactor). The results obtained make a subsequent industrial scale-up phase plausible.

In the Networks area, besides the Smart Grid pilot project, being implemented, and the Smart Network Management System project, already mentioned, Acea Distribuzione implemented the DigSILENT PowerFactory calculation programme for the improvement of the MV network set up, developing an application, which used when operating fully could lead to significant reductions in electricity losses (even as much as 17% according to initial simulations).

Within the sphere of electric mobility, the already mentioned Memorandum of Understanding between Acea and Fiat Group Automobiles, also envisages collaboration for the carrying out of an experimental stage on electric vehicles, by means of tests and pilot projects.

Corporate governance and management systems

Chart No. 6 – ACEA SPA ORGANISATION CHART AS OF 31 DECEMBER 2011



Corporate governance within Acea

Acea complies with the Code of Best Practice for Listed Companies²¹, in the conviction that a corporate governance model aspiring to principles of accountability, equilibrium and separation between the policy, management and control activities is essential for the effective pursuit of its mission.

The Board of Directors has the function to define the strategic policies of the company and the Group it belongs to and is responsible for governing the business operations. It has also set up two Committees with proposal and advisory functions. The Board of Auditors carries out supervisory activities.

²¹ The last up-date of the Code of Best Practice for Listed Companies was December 2011, with the invitation to the issuers to apply the amendments by the end of 2012.

Box – 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 **CSR 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 (including those associated with the violation of norms protecting the environment, introduced by means of Italian Legislative Decree No. 121/11). During 2011, the following companies were involved: Acea Produzione, Acea Energia, Acea Distribuzione, Acea Ato 2, Acea Ato 5, LaboratoRI, Aquaser, Kyklos, Solemme, I.S.A., A.R.I.A., SAO and Crea Gestioni.

The management of the company is exclusively reserved for the **Board of Directors** (BoD). This body can be 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, in line with the best practices of listed companies, 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 law²².

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 2011, the Board of Directors met eleven times. The **Chairman** and the **Chief Executive Officer** are **executive Directors** while the other seven directors are not, since they lack individual management powers.

The information on the résumés of Acea SpA Directors, on the independence qualifications, on the presence during Board Meetings and those of any Committees which they are

members of and, in conclusion on any appointments covered in other companies is available in the **Report on corporate governance and the ownership set-ups** which can be consulted on-line on the company website (www.acea.it). 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 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 **2011 Consolidated financial statements**²³.

Box – Acea SpA's Board of Directors (as of 31 December 2011)

GIANCARLO CREMONESI	(Chairman)
MARCO STADERINI	(Chief Executive Officer)
PAOLO GIORGIO BASSI	(Co-ordinator of the Internal Auditing Committee)
ANDREA PERUZY	(Member of the Internal Auditing Committee and the Remuneration Committee)
LUIGI PELAGGI	(Member of the Internal Auditing Committee and the Remuneration Committee)
FRANCESCO CALTAGIRONE	(Member of the Internal Auditing Committee)
PAOLO DI BENEDETTO	(Co-ordinator of the Remuneration Committee)
JEAN LOUIS CHAUSSADE	(Member of the Remuneration Committee)
ALDO CHIARINI (*)	(Member of the Internal Auditing Committee)
GIOVANNI GIANI (**)	(Member of the Internal Auditing Committee)

(*) The Director Aldo Chiarini, further to him tendering his resignation, fell from office as from 10 November 2011.

(**) During the meeting held on 29 November 2011, the Director Giovanni Gianni was co-opted.

Box – The roles and the powers of the Board of Directors within Acea

The powers assigned by law and the Articles of Association 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 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 Best Practice 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).

²² 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 2011, the BoD checked that the Directors comply with the conditions required so as to be qualified as independent: as of 31 December 2011, 5 Directors out of 9 were independent

²³ Published each year on the company website, Shareholders section.

The Articles of Association discipline the powers which can be delegated by the Board of Directors and those of the **Chairman** and the **Chief Executive Officer**, to be exercised individually or jointly. In February 2011, the **General Manager** was installed in

Acea SpA and was granted powers of ordinary business by the CEO, by means of power of attorney dated 7 February 2011 (see related box).

Box – 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 chair of the **Strategic Committee**, still being reviewed; 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, Environment and Energy - the Regulatory Division, the Planning and Management Control Division, the Human Resources and Organisation Division, the Safety and Protection Division, the Purchasing and Logistics Division, the ICT Division and the Engineering and Services Division.

Box – The new 2011 macro-structure

At the start of the year, Acea SpA's Board of Directors approved the new Group macro-structure. The organisational set-up, whose foundations lie in the 2011-2013 Business Plan, envisaged: the establishment of **General Management** with powers for the operational management of the Parent Company and the individual businesses; the establishment of the **Corporate Strategy** divisions monitoring the strategic development of the Group and the significant extraordinary transactions in this context; the establishment of the **Planning and Management Control** division, whose mission includes the drawing up and co-ordinating of the planning and budget process for the business areas, the drafting of the credit management policies and the definition of the Group audit model; the establishment of the **Regulatory** division, with monitoring, co-ordinating and operational tasks regarding regulation aspects imposed by public authorities in the sector; the restructuring of the divisions currently known as Human Resources and Organisation, ICT and Purchasing and Logistics. By means of this reorganisation, the intention was to strengthen the governance, policy and audit role of the holding company to be achieved both vis-à-vis the current businesses and Group growth.

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 the integration of subjects to be dealt with by 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 right.²⁴

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.

The **Internal Audit System** (SCI) is deemed by Acea to be an essential element of the Corporate Governance system and is disciplined by Guidelines approved by the Board of Directors. The Guidelines have the purpose of steering the Group so that everybody adopts conduct consistent with the accepted risk profile and is able to handle - within the sphere of their tasks and responsibilities - events which might hinder the achievement of the corporate purposes, in observance of the Code of Best Practice and reference legislation.

The **risk monitoring and control facilities** are developed **starting off from the operating activities (first level)** and, for certain significant categories of risk (such as work safety, the safeguarding of the company assets, the financial and commodity-related risks, the IT security risks, etc.) **centralised monitoring facilities (second level)** exist entrusted to business structures of the Parent Company, which provide account of their operations via direct information flows to company management and the audit bodies.

Within the sphere of the complex audit system, the **Audit Division** carries out third level controls and achieves independent and objective assurance activities aimed at improving the efficacy and efficiency of the organisation in the pursuit of the business objectives. Acea's Internal Audit System is made up of a structured series of elements - bodies, rules and procedures, instruments - whose work aims to:

- supply the 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;
- identify the principles of a system of controls capable of mitigating the Risks associated with the business activities;
- ensure the observance of the Code of Best Practice and reference legislation;
- guarantee the transparency of communications addressing the stakeholders and the related coherence with the cognitive expectations, also in observance of the necessary confidentiality requirements.

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

- the **Board of Directors** (BoD), which together with the support of the Internal Auditing Committee defines the guidelines of the SCI so as to identify, gauge and handle the main risks pertaining to Acea and the Group companies. The BoD has also the power to appoint and remove the members of the Committees and the parties who operate within the system: the Chief Executive Officer, being the individual appointed to oversee the Internal Audit System, the Individual in charge of Internal Auditing and the Executive in charge of drawing up the corporate accounting documents;
- the **Internal Control Committee**, with proposal and advisory functions vis-à-vis the Board of Directors with reference to the duties defined by the Code of Best Practice. During 2011, the Committee met ten times; the body has an annual budget of Euro 25 thousand;
- the **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. It should be mentioned that in December Acea SpA's BoD approved, upon the proposal of the Committee, the policy for the remuneration of the executive directors and the executives with strategic responsibilities, in line with the matters envisaged by the Code of Best Practice for listed companies. 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 Best Practice for listed companies. The shareholders' meeting appointed the Chairman from among the Acting Statutory Auditors, appointed by the minority shareholders;
- the **Chief Executive Officer**, who supervises the functioning of the Internal Audit System, sees to the identification of the main business risks and ensures the correct handling of the corporate information;
- the **Executive appointed to draw up the accounting and corporate documents**, 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

²⁴ 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. See also the Report on corporate governance and the ownership set-ups.

independent decision-making and control powers with regard to the functioning 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 has an annual budget of Euro 25 thousand;

- the **Ethics Committee**²⁵ 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 Unit**, which carries out independent checks on the overall functioning of the Internal Audit System and on the monitoring of the execution of the improvement plans defined by the management. The Unit, which reports to the Chairman 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 and Management 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 to committing the crime of **corruption**. The processes subject to the afore-

mentioned audit activities were: *consulting and professional appointments* (for Acea SpA and another 11 Group companies); *sponsorships and donations* (for Acea SpA); *recruitment and employment* (for Acea SpA and another 8 Group companies).

In conclusion, the head of the Audit Unit has also been identified as the *Individual in charge of Internal Auditing*, who has the task of constantly and independently checking that the Internal Audit System is always adequate, fully operative and functioning, reporting his/her assessments to the Internal Auditing Committee, the Board of Statutory Auditors and the CEO. The head of the unit has an annual budget of Euro 25 thousand;

- 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 detection and measurement of the risks, spreading throughout the Group an increasingly greater awareness of the factors which may compromise the achievement of the corporate objectives and assisting the management in the identification of any corrective action;
- **all the Executives and employees** that are responsible, within their own sphere of competence, for the effective measures necessary for ensuring an efficient running of the Internal Audit System.

Management systems

A complex **system of internal regulations** is in force within Acea for the control, management and coherent supervision of all the business processes and **formalised management systems** are present according to external norms (UNI EN ISO 14001, UNI EN ISO 9001 OHSAS 18001 standards). Over time, **Policies** have been adopted, updated and implemented, increasingly integrated, overseeing **quality** and **safety**, safeguarding the **corporate assets** and the **environment**, both for the Group and of specific pertinence for the individual operating companies.

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, characteristic of the business sectors, according to the scheme proposed below:

- **Group management rules**, via which the Parent Company, within the sphere of its management, co-ordination and

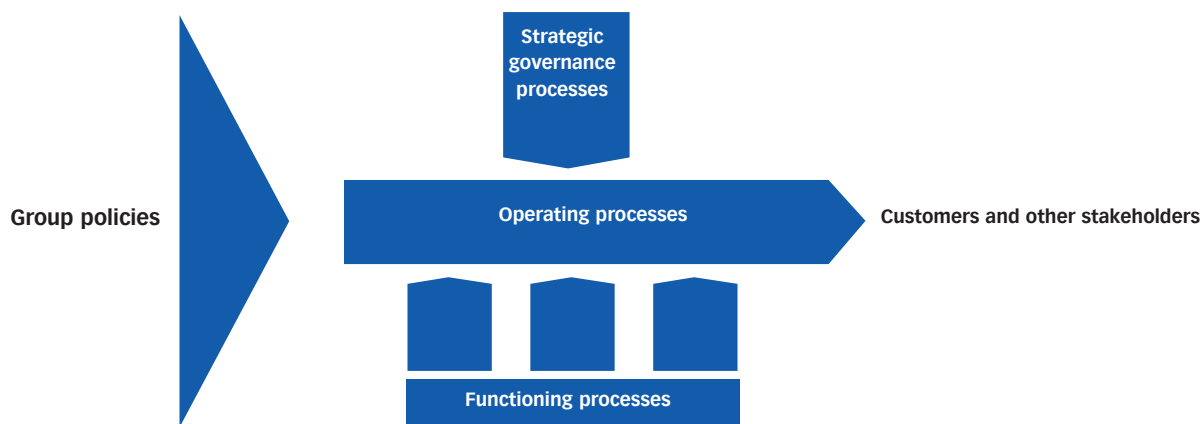
control function, imparts instructions to all the corporate components;

- **processes**, in turn separated up into strategic governance, functioning and operative processes, according to whether they pertain to the definition and management of the strategies, transversal themes or individual businesses;
- **procedures**, which define the methods for implementing the corporate processes.

In order to ensure a rapid and prompt response to the service requirements, all the components of the system of internal rules are constantly updated. Specifically, in 2011 a number of **Group procedures** were reviewed regarding the discipline of roles, responsibilities and tasks applicable in purchasing and logistics activities (for example regarding the divestments of company assets) and in safety and protection activities (assessment and qualification of suppliers).

²⁵ According to the new regulations, the members of the Ethics Committee are 5, of which two appointed externally. On 14 June 2011, two external members were appointed, Mr. Cesare San Mauro (lawyer) and Mr. Andrea Mondello.

Chart No. 7 – INTERNAL REGULATIONS SYSTEM



The Parent Company's *Quality System and Legislative Compliance Procedures Unit* has the task of **overseeing the Quality Management System certification process for Acea SpA**, working in collaboration with the competent structures and handling the dealings with the certifying body, and of **defining methods and reference standards for the implementation of management systems in the Group**, guaranteeing the support for the companies for the purpose of standardising the handling of certification activities.

The head of the *Safety and Protection Division* to which the afore-mentioned Unit reports to, is the HQ Representative for the implementation of the Quality System. He is responsible for periodically re-examining and possibly up-dating the **Quality Policy**, signed off on by senior company management. The document outlines the desire to **further the quality culture** at all levels of the structure and specifies the **reference to the sense of economic, social and environmental**

responsibility for the definition of the strategic choices²⁶. The *Safety and Protection Division* also defines and controls the implementation of the Group policies concerning **health and safety in the workplace** and **protection of material and immaterial company assets**; for such purposes, the *Health and Safety in the workplace* and *Asset Protection* Units are operative (also see the *Human Resources* and *Institutions and the Company* sections).

The majority of the Group companies and the energy generation plants - thermoelectric, hydroelectric and waste-to-energy installations - operate according to **Quality and Environmental Certification**;²⁷ some plants are also **EMAS** registered and numerous Group companies are equipped with a **health and safety** in the workplace Management system as per the **OHSAS 18001:2007** standard (see related boxes).

²⁶ The documentation on the Acea Quality Management System (Policy, Certificates, organisational structure, etc.) is available on the website www.acea.it (Quality and Safety section) and a dedicated area, constantly up-dated, has been organised on the company intranet.

²⁷ 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.

Box – Acea Group quality certification for 2011

- **Acea SpA – UNI EN ISO 9001:2008 Quality System Certification**, 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- UNI EN ISO 9001:2008 Quality System Certification** 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
- **SAO SpA – UNI EN ISO 9001:2008 Quality System Certification** for the waste collection and transportation services on behalf of third parties, waste intended for treatment, disposal or recovery; for the planning and management of urban sanitary services; for the planning, construction and running of plants for treatment, disposal, recovery of solid urban waste and special waste similar to urban
- **LaboratoRI SpA – UNI EN ISO 9001:2008 Quality System Certification** for the planning, design and works management activities for hydraulic works and hydro-environmental plants
- **Acea Ato 2 SpA – UNI EN ISO 9001:2008 Quality System Certification**, obtained in January 2011 for the management of the integrated water service, the design, construction and maintenance of aqueduct and sewage networks and waste water treatment plants in ATO 2 - Central Lazio
- **Acea Ato 5 SpA – UNI EN ISO 9001:2008 Quality System Certification** for the management of the integrated water service, the design, construction and maintenance of aqueduct and sewage networks and waste water treatment plants
- **Acque SpA – is Best4 certified** (quality, environment, safety, social responsibility) - see box on environment management systems
- **Acquedotto del Fiora SpA - UNI EN ISO 9001:2008 Quality System Certification** 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 – UNI EN ISO 9001:2008 Quality System Certification** 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
- **Umbra Acque SpA – UNI EN ISO 9001:2008 Quality System Certification**, 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 – UNI EN ISO 9001:2008 Quality System Certification** for the management of the integrated water service.

Box – 2011 Acea Group environmental and safety management systems certifications

- **Acea SpA** - in December 2011 obtained certification of the Health and safety in the workplace management system (Sgsl) in accordance with the OHSAS 18001:2007 standard for office activities: Management, Co-ordination, Administration, Finance and Control.

Energy

- **Acea Produzione SpA** - during 2011 it renewed its **UNI ISO EN 14001:2004 Environmental certification** for the centralised offices (Rome) 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)**. Extension of environmental certification is underway for the Heating Services Unit and for another two hydroelectric plants (A. Volta and G. Ferraris). Acea Produzione also has Sgsl certification in accordance with the OHSAS 18001:2007 standard
- for the 2 **waste-to-energy plants** of Terni and San Vittore del Lazio, since 2011 in **A.R.I.A. SpA** (Acea Risorse e Impianti per l'Ambiente), **UNI ISO EN 14001:2004 Environmental certification** was confirmed for the electricity production plant management activities involving the use of renewable sources along with **EMAS Registration**. It should also be mentioned that A.R.I.A. launched a process for the extension of the environmental management system to all its local units and corporate headquarters.
- **SAO SpA**, a company active in the management of environmental services, has a **QAS integrated system (Quality, Environment and Safety)** with certification inherent to the UNI ISO EN 14001:2004 Environmental Management System, the UNI EN ISO 9001:2008 Quality System and the OHSAS 18001:2007 Safety System. During 2011, it also obtained **EMAS Registration**
- **Acea Distribuzione** - Sgsl certification in accordance with the **OHSAS 18001:2007 standard**
- **Acea Reti e Servizi Energetici SpA** - during 2011 it obtained **UNI ISO EN 14001:2004 Environmental Certification** 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 Energia holding** - Sgsl certification in accordance with the **OHSAS 18001:2007 standard**
- **Acea Energia** - Sgsl certification in accordance with the **OHSAS 18001:2007 standard**

Furthermore, in 2011, **Acea Produzione** and the companies **Kyklos** and **Solemme**, from the Aquaser Group, launched the implementation of an integrated environment and safety management system and **Acea Distribuzione** carried out preparatory activities for the implementation of an integrated quality, environment and safety management system

Water

- **LaboratoRI SpA** - **ACCREDIA** (former SINAL) **Accredited, UNI CEI EN ISO/IEC 17025 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 standard** for the planning, design and works management activities concerning hydraulic works and water-environmental plants.
- **Acque SpA**, together with the subsidiary companies **Acque Industriali** and **Acque Servizi** and the associated company **Ingegnerie Toscane** maintained and implemented during 2011 the **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 supply of the integrated water service; design, planning, construction and running of the networks. The companies **Acque Industriali** and **Acque Servizi**, in addition, were subject to an extraordinary audit so as to extend the field of application of their management system and the related certification also to waste mediation activities.
- **Publiacqua SpA** extended **UNI ISO EN 14001:2004 environmental certification in 2011** 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), obtained certification of its integrated **Quality and Environment** management system, in accordance with the **UNI EN ISO 14001:2004** and **9001:2008** standards. The company is currently implementing the work safety management system
- **Aguas de San Pedro SA**, (Honduras) during the year continued with the certification process for the laboratory in accordance with the **ISO 17025 standard**, and launched the implementation of the **Quality Management System** in accordance with the **ISO 9001:2008 standard**
- **Aguazul Bogota SA**, (Colombia) operates according to the **ISO 9001:2008 standard** for quality purposes; this certification was renewed and updated in April 2011. A **Health and safety in the workplace and environmental protection management system** also operates within the company, which, verified by the Colombian Safety Council, led to enrolment in the Consolidated Register for Contractors (RUC).

The *Risk Control and internal controls unit*, within the Audit Division, sees to the identification and monitoring of the **main risk factors** – strategic, operating and process-related – **which may compromise the achievement of the Group objectives**. The activities are achieved **by means of a structured risk assessment model** which envisages the involvement of the heads at various levels of the organisations and for the various Group companies and the drafting and disclosure of reporting for Senior Management and the Audit Bodies.

Risk analysis envisages the identification of the risk categories most representative of the sectors in which the Group operates and the definition of a single taxonomy of the specific risks.

The **risk database is updated annually**, taking into account changes in the external context (sector norms and regulations, general economic conditions, market trends, impacts of the new technologies, etc.) and internal context with regard to the company (organisational amendments, changes in assets, entry into new business areas, etc.). The risk factors are subject to management assessment, which identifies the probabilities of occurrence and the impact of the potential risks.

Therefore, the Audit Division, via analysis of the main risks and the associated audit systems, the independent checks carried

out on the company processes subject to audit and the monitoring of the **improvement plans underway**, is able to define and propose further improvement activities for the Internal Audit System.

During 2011, the company improved the supervision of the **'regulatory' risks**, which the main reference businesses are subject to, setting up a new Division with the Parent Company (Regulatory), with the mission of providing the necessary policies for the companies/business areas in the implementation of resolutions and indications of Authorities and Bodies, for the purpose of minimising the exposure to regulatory risk as well as ensuring the monitoring of the Italian and international regulatory framework, assessing the impact of its developments on the business results.

Furthermore, particular attention has been paid to risks deriving from the **trade receivables management process**, subject to organisational, procedural and IT improvement measures, and to those related to the **environmental impacts**, in relation to which measures have been adopted aimed at reducing the consequences of the business activities on the environment (see box dedicated to Environmental certification).

Stakeholders and sharing added value generated

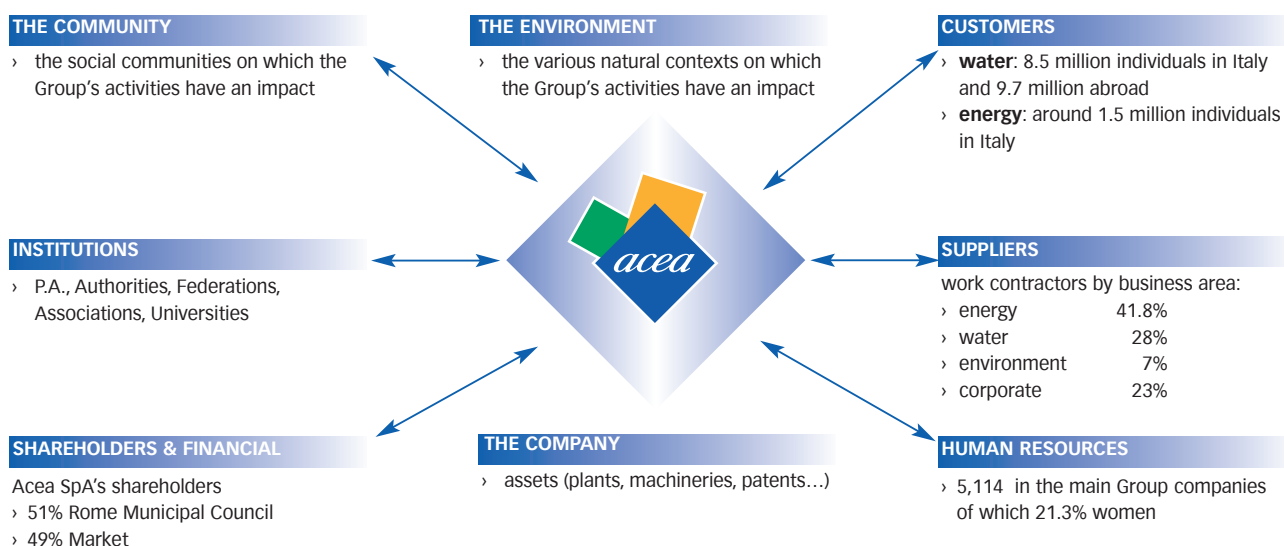
Stakeholders and their involvement

Acea is heedful of the quality of the relationships it establishes with its stakeholders²⁸, for such purposes it identifies, maps and classifies the groups of interest, listens to the legitimate requests, seeks forms of constructive dialogue and develops understandings and synergies, turning to account the singularities

of the various stakeholders.

Even if the macro-categories indicated in chart No. 8, also reflected in the value codes, 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.

²⁸ 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 COMMUNITY

- › Involvement in the life of the local communities
- › Contribution to the well-being of the social context
- › Capitalisation of the area and the architectural and monumental heritage

ENVIRONMENT

- › Sustainable management of the natural resources
- › Monitoring and control of the environmental risks
- › Development of activities for protecting the environment
- › Adoption of the best technologies available

CUSTOMERS

- › Customer orientation
- › Quality of the services and customer care
- › Widespread distribution of services under fair and non-discriminatory conditions
- › Transparent and effective communication

INSTITUTIONS

- › Observance of fulfilments
- › Collaboration
- › Development of shared projects



SUPPLIERS

- › Accountability of the procedures for assigning
- › Capitalisation of the associated economic fabric
- › Request for services, materials, quality

SHAREHOLDERS AND FINANCIAL BACKERS

- › Generation of value and equal distribution of the same
- › Transparency in Corporate governance
- › Effective analysis of the risks
- › Protection of the minority shareholders
- › Clear, in-depth and prompt information

THE COMPANY

- › Sustainable growth
- › Competitiveness
- › Analysis of the investment risks
- › Sharing of objectives
- › Management accountability

HUMAN RESOURCES

- › Involving human resources and making them responsible
- › Professional training and capitalisation
- › Protection of safety in the workplace

Acea interacts with the stakeholders, involving the Divisions, Units and Group companies for various purposes. **The methods for the involvement of the stakeholders** generate 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 undertakes activities for providing information and raising awareness (for example via numerous initiatives care of schools aimed at increasing the awareness of the value of water and energy and their correct use) and takes part in encounters between the company and university students; the **customers** are consulted in a structured manner via customer satisfaction surveys, carried out each year and aimed at revealing their satisfaction with respect to the services provided, and via round tables consulting with the **consumer protection associations** on aspects of shared interest. The outcomes of the customer satisfaction surveys and the encounters with the associations generated specific initiatives for the improvement of the services, answering the requests. Accordingly, the regulations and joint conciliation protocols adopted by Acea Ato 2, Acea Ato 5 and the Acea Energia have been defined and in 2011 a

permanent Monitoring Centre was set up into improper commercial practices together with 16 consumer protection associations. The relationship with the **shareholders** is constantly overseen by an appointed 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 in which it is assessed. The interaction with the **institutions** and with the **competent authorities** takes on the form of encounters, hearings and exchanges of information - documental and in the development, with the former, of collaboration regarding safety and protection of assets, such as that existing within the sphere of the National Security Monitoring Centre (OSN), and projects which generate positive repercussions on the quality of life of the local communities and on the development of the area, like the project for sustainable mobility in Rome and Lazio. With reference to the **Human Resources**, Acea implements systems for the assessment of the in-house professional skills, planning the consequent growth plans, and creates training courses in line with organisation needs, periodically consults the workers' representatives and defines trade union agreements. Dealings with the **suppliers** are overseen systematically also by means of the exchange of views with territorial employers' associations; such interaction has been useful for establishing Qualification Systems active within the Group.

Distribution of Acea's added value

The economic value directly generated by the Group in 2011, including the revenues which derive from both the core business and financial operations (financial income, income from equity investments, etc.), amounts to **Euro 3,623.7 million**, in line with the Euro 3,605.4 million in 2010.

The distribution of this value to the stakeholders is broken down as follows: **71%** to the **suppliers** under the form of

operating costs; 12.7% as resources reinvested in the **company system; 7.8%** in terms of remuneration for **human resources; 6%** to the **shareholders and financial backers** under the form of interest and dividends; **1.8%** to **public administration authorities**²⁹ as the tax liability for the year and **0.1%** to the **Community**, under the form of donations and sponsorships of events and manifestations.

Table No. 11 – ECONOMIC VALUE DIRECTLY GENERATED AND DISTRIBUTED (2010-2011)

(in millions of Euro)	2010	2011
total economic value directly generated	3,605.4	3,623.7
distribution to the stakeholders		
operating costs (suppliers)	2,667.5	2,594.4
human resources	274.9	280.6
shareholders and financial backers	163.3	217.9
public administration authorities	85.4	65.6
the community	5.5	5.6
the company	408.8	459.6

Table No. 12 - BREAKDOWN OF THE VALUE GENERATED BY STAKEHOLDER (2010-2011)

(%)	2010	2011
suppliers	74%	71.6%
human resources	7.6%	7.8%
shareholders and financial backers	4.5%	6%
public administration authorities	2.4%	1.8%
the community	0.1%	0.1%
the company	11.4%	12.7%

²⁹ 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 55 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 **Sector Supplement for Utility companies in the electric sector** are shown below³⁰, 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.

Table No. 13 – GRI-G3.1 ECONOMIC AND SOCIAL INDICATORS

Economic performance	
EC1	(Core) 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, 57; <i>The socio-economic relationships with the stakeholders</i> pages 131, 139, 143
EC2	(Core) Financial implications and other risks and opportunities for the organization's activities due to climate change. <i>Corporate Identity</i> pages 26, 57; <i>Environmental issues</i> pages 158, 171
EC3	(Core) Coverage of the organization's defined benefit plan obligations. <i>The socio-economic relationships with the stakeholders</i> page 132
EC4	(Core) Significant financial assistance received from government. <i>Corporate Identity</i> page 57 note 29
Market presence	
EC5	(Additional) 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 National Collective Labour Agreements for the sector (electricity, gas and water). <i>Socio-economic relationships with the stakeholders</i> page 131
EC6	(Core) Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation. <i>Socio-economic relationships with the stakeholders</i> page 114
EC7	(Core) 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	
EC8	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 105-108
EC9	(Additional) Understanding and describing significant indirect economic impacts, including the extent of impacts. <i>Socio-economic relationships with the stakeholders</i> pages 86, 91, 100, 105-108
Availability and reliability	
EU6	(Core) Management approach to ensure short and long-term electricity availability and reliability. <i>Corporate Identity</i> page 29; <i>Socio-economic relationships with the stakeholders</i> pages 75, 82, 93, 94, 109, 110 note 82, 144, 146; <i>Environmental issues</i> page 170
EU10	(Core) Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime. <i>Corporate Identity</i> pages 29, 30 note 17; <i>Environmental issues</i> page 66
Handling of demand	
EU7	(Core) Demand-side management programs including residential, commercial, institutional and industrial programs. <i>Socio-economic relationships with the stakeholders</i> pages 75, 93, 94; <i>Environmental issues</i> page 170

³⁰ The indicators of the Sector Supplement for Utility companies in the electric sector (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.

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 75, 146; *Environmental issues* pages 189-193

Plant decommissioning

- EU9 (Core) Provisions for decommissioning of nuclear power sites.
There are no nuclear plants in the Acea group of installations.

System efficiency

- EU11 (Core) Average generation efficiency of thermal plants by energy source and by regulatory regime.
Environmental issues page 167
- EU12 (Core) Transmission and distribution losses as a percentage of total energy.
Environmental issues page 169

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 118, 119-122, 123-125
- 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 119, 122
- 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 132
- 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 pages 75, 135, 136
- 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 2.3% 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, 0.1% of middle management, 1.5% of white-collar workers and 0.7% of blue-collar workers; 15.2% of the workforce is by contrast eligible for retirement **in the next 10 years**, broken down into: 0.2% of executives, 0.9% of middle management, 10.3% of white-collar workers and 3.8% 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 monitors the working days of the contractor and subcontractor companies, by means of the workers attendance sheets. Nonetheless, the figure is not included in an attendance management disclosure programme.

Labor/Management Relations

- LA4 (Core) Percentage of employees covered by collective bargaining agreements.
Socio-economic relationships with the stakeholders pages 123-125
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 the companies which are entrusted services and work under contract are obliged to comply with the Acea value codes, in which explicit reference is made to the obligation to observe current legislation.

- 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 123-125

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. 81/08 regarding health and safety in the workplace are observed.
Socio-economic relationships with the stakeholders pages 116, 129, 130
- 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 page 129
- 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 130
- LA9 (Additional) Health and safety topics covered in formal agreements with trade unions.
Socio-economic relationships with the stakeholders page 129
In 2011, the topic of safety was not subject to specific trade union agreements.
- EU16 (Core) Policies and requirements regarding health and safety of employees and employees of contractors and subcontractors.
A Site Inspection Unit exists within Acea Distribuzione, present within the Quality and Safety B.U. which constantly carries out inspections at sites, checking the observance of the safety parameters for the work carried out by contractor companies on behalf of the company.
Socio-economic relationships with the stakeholders pages 116, 134
- 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. Acea applies work Qualification Systems for the water sector and the energy sector and the respective Regulations impose the acceptance and observance of the Group's value codes as well as the obligation to observe the safety norms. Furthermore, with regard to works - energy sector, compliance with the Health and Safety in the workplace Policy is envisaged, as an indispensable requirement for admission to tenders and a Vendor Rating system is applied centred on quality and safety: in 2011, 33 worksites were suspended for non-compliances on safety, in the face of a total of 962 inspections made. In conclusion, the presence of the Prevention and Protection Service Manager (RSPP) is envisaged at the sites.

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 135, 136
- 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 page 133
- LA12 (Additional) Percentage of employees receiving regular performance and career development reviews, by gender.
In 2011, 31.5% of the employees were appraised (15 executives and 65 middle managers of Acea Distribuzione and the entire workforce of Acea Ato2 equating to 1,530 out of a total of 5,114 resources). Reference should be made to the section *Human Resources, Human Resource appraisal systems* and *The training and development of the Human Resources* parts.
Socio-economic relationships with the stakeholders page 133

Diversity and Equal Opportunities

- 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 122, 126, 138

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 131

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.
The Group has adopted value codes - Ethical Code and Tender Ethics Code - which all the parties who operate on behalf of Acea in the management of the corporate activities are obliged to observe and 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 page 115
- HR2 (Core) Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.
The percentage is not available but Acea applies Qualification Systems which force suppliers and contractors to accept and observe the Group value codes, as well as the obligation to observe national norms concerning health, safety and hygiene in the workplace, remunerative, contribution and insurance-related fulfilments.
Socio-economic relationships with the stakeholders pages 109, 115, 143
- 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 2011, training hours provided to employees which also concerned such topics amounted to around 1,359, relating to new recruits (90 individuals x 15.1 hours of training per head) who normally are the sole recipients of these training activities.
Socio-economic relationships with the stakeholders page 135

Non-discrimination

- HR4 (Core) Total number of incidents of discrimination and corrective actions taken.
No episodes of discrimination were reported.
For the prevention policies, in other words the value codes adopted by the Group and the protection of the diversity and equal opportunities, please refer to *Corporate Identity* page 32 and *Socio-economic relationships with the stakeholders* pages 126, 138

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).
Socio-economic relationships with the stakeholders pages 123-125, 137, 138

Child labour

- 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 *Tender Ethics Code* and the *Group's Ethical Code*, which protects workers from any form of abuse (see sections *Human Resources* and *Suppliers* in *Socio-economic relationships with the stakeholders*).

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 in the supply chain, Acea binds any potential

supplier to observe the *Tender Ethics Code* and the *Group's Ethical Code*, which protects workers from any form of abuse (see sections *Human Resources* and *Suppliers* in *Socio-economic relationships with the stakeholders*).

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 *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 has adopted value codes - *Ethical Code* and *Tender Ethics Code* - which all the parties who operate on behalf of Acea in the management of the corporate activities are obliged to observe and this guarantees an adequate protection of the human rights, therefore specific activities have not been subject to re-examination.

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 value codes ensures 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, 53, 55; *Socio-economic relationships with the stakeholders* pages 68-74, 92, 101-105, 109, 116, 146
- SO9 (Core) Operations with significant potential or actual negative impacts on local communities.
Socio-economic relationships with the stakeholders pages 74-92, 105-108
- 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 assessment of their environmental impact (EIA). The assessment 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 145
- EU19 (Core) Stakeholder participation in the decision making process related to energy planning and infrastructure development.
Socio-economic relationships with the stakeholders page 145
- EU20 (Core) Approach to managing the impacts of displacement.
Socio-economic relationships with the stakeholders page 145
- EU21 (Core) Contingency planning measures, disaster/emergency management plan and training programs and recovery/restoration plans.
Socio-economic relationships with the stakeholders page 144
- 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

- S02 (Core) Percentage and total number of business units analyzed for risks related to corruption.
Corporate Identity pages 46, 49, 50
- S03 (Core) Percentage of employees trained in organization's anti-corruption policies and procedures.
The percentage of workers who have received training on anti-corruption policies and procedures refers to new recruits who normally are the sole recipients of these training activities, and corresponds to around 1.7% of the workers included within the area of reporting of the *Human Resources* section (90 individuals out of 5,114 workers). These training activities are illustrated in the section *Socio-economic relationships with the stakeholders* pages 133, 134
- S04 (Core) Actions taken in response to incidents of corruption.
There have been no episodes of corruption.

Public policy

- S05 (Core) Public policy positions and participation in public policy development and lobbying.
Socio-economic relationships with the stakeholders page 143
- S06 (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 143

Anti-competitive behavior

- S07 (Additional) Total number of legal actions for anticompetitive behavior, anti-trust, and monopoly practices and their outcomes.
Socio-economic relationships with the stakeholders page 147

Compliance

- S08 (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 147

PRODUCT RESPONSIBILITY

Consumer 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 pages 50, 52, 53; *Socio-economic relationships with the stakeholders* pages 90, 116, 146
- EU25 (Core) Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases.
No such episodes were registered in 2011. The verdict for the mortal accident following the collapse of a public lighting lamppost in Naples in December 2006 is still pending.
- 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 74-92
- 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 74-92
- PR5 (Additional) Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.
Corporate Identity page 55; *Socio-economic relationships with the stakeholders* pages 68-74

Marketing communication

- PR6 (Core) Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.

Marketing activities (advertising campaigns, sponsorships, disbursements, etc.) are disciplined by Group management regulations which establish the procedures so that observance of current legislation and the value codes is ensured. The Group management regulations dedicated to sponsorships and updated in 2009, «have the purpose of defining the operating formalities and controls which must be established in the handling of sponsorships and/or donations, so as to ensure the maximum observance of the fundamental and inalienable principles of professional and conduct-related ethics, as envisaged by the Code of Ethics, and to prevent the commission of the offences pursuant to Italian Legislative Decree No. 231/01». The Acea Group's Ethical Code (available on-line on the company website, www.acea.it) dedicates Article 12.2 to "contracts and communications with the customers" and Article 20 to "grants and sponsorships".

Socio-economic relationships with the stakeholders pages 96, 100

- 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 147

Customer privacy

- PR8 (Additional) Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data. No related episodes have been reported. For the prevention policies, please refer to the section: *Corporate Identity* page 46; *Socio-economic relationships with the stakeholders* page 96

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 147

Access

- EU23 (Core) Programs, including those in partnership with government, to improve or maintain access to electricity and customer support services.

In the energy sector, the public regulation system envisages economic concessions (for example the social bonus) aimed at facilitating access for less well-off members of society; the powering of electro-medical equipment is also guaranteed.

- 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 Electricity and Gas Authority.

Socio-economic relationships with the stakeholders page 79

- EU28 (Core) Power outage frequency.

Socio-economic relationships with the stakeholders page 82

- EU29 (Core) Average power outage duration.

Socio-economic relationships with the stakeholders page 82

- EU30 (Core) Average plant availability factor by energy source and by regulatory regime.

Environmental issues page 167

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.

There are no specific programmes in-house; the public system guarantees forms of support aimed at reducing barriers among the population for energy use.

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 section describes **the interaction between Acea, customers and the community** jointly since the **information concerning services provided** (quality perceived, quality disbursed, customer care) refers mainly to Rome and province, where the two stakeholders almost coincide³¹.

The indications on the volumes of electricity and water service customers by contrast refer to all the areas served; the information on the revenues generated by the energy and water supply chains can be found in the section *Corporate identity (General economic indicators)*.

Acea Group customers

Electricity and gas service customers

Acea Energia³² according to the latest available surveys of the Electricity and Gas Authority (on 2010 figures) is the **third leading operator in Italy** in terms of volumes sold on the **end sales market** for energy, with a **market share of 6%**.

During 2011, changes in the energy market segments managed by Acea confirmed the trend seen in the last three years, with

a **drop of around 15% in “protected” customers** and a **rise of roughly 115% in “free market” customers**.

Furthermore, there was growth in the **gas** market, where the commercial offer mainly targets the mass market segment (residential customers and small businesses) with an **increase in customers of 201%** when compared with 2010 (see table No. 14).

Table No. 14 – GAS AND ELECTRICITY SALES: ACEA GROUP CUSTOMERS BY MARKET TYPE (2009-2011)

(No. of customers)	2009	2010	2011
protected market	1,427,315	1,350,505	1,147,771
free market	74,279	101,338	218,105
free gas market	8	31,559	95,083

³¹ 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 among 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.

³² Since April 2011, following the winding up of the JV with GdF Suez Energia Italia SpA, the company tasked with selling electricity, wholly-owned by Acea, is Acea Energia SpA.

³³ See the Annual report on the state of the services and the activities carried out, 2011 edition, section Structure, prices and quality in the electricity sector, available on-line on the AEEG website; according to the same source Acea is the second leading operator in Italy in terms of volumes sold to customers on the protected market, with a market share of 5.2%, and the third leading operator in terms of volumes sold on the free market, with a share of 6%. Pending the new edition of the annual AEEG Report, the estimates made by Acea on 2011 figures confirm a final market share of sales of around 6%.

Box – The energy market segments

- **protected service:** this is the service for the supply of electricity under economic and contractual conditions established by the Electricity and Gas 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 Electricity and Gas 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.

Water service customers

Acea is the **leading operator in Italy for the integrated water service** (collection, transportation, treatment, collect of waste water and purification) **in terms of population served**, with a customer base of **around 8.5 million inhabitants in Italy**. The company, traditional operator of the water service in Rome, has progressively expanded its activities, becoming the

reference operator care of other Optimum Areas of Operation (ATOs)³⁴ 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 countries³⁵.

Perceived quality

Acea carries out the **customer satisfaction surveys** with the aim of surveying the level of customer and citizen satisfaction with regard to the electricity, water³⁶ and public lighting services, availing itself of the support of a specialised outside company, identified by means of tender. The process is **co-ordinated by the Parent Company** which operates **together with the operating companies**, following the course of the surveys: from the definition of the questionnaires to identification of the samples to be interviewed, and presentation of the results and shared interpretation of the ensuring output.

During 2011, on a consistent basis with the innovation introduced in the previous year, two six-monthly surveys were carried out via a method³⁷ which made 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 customer 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)³⁸ which gauge “how much” the customers are satisfied or unsatisfied with the service.

³⁴ 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.

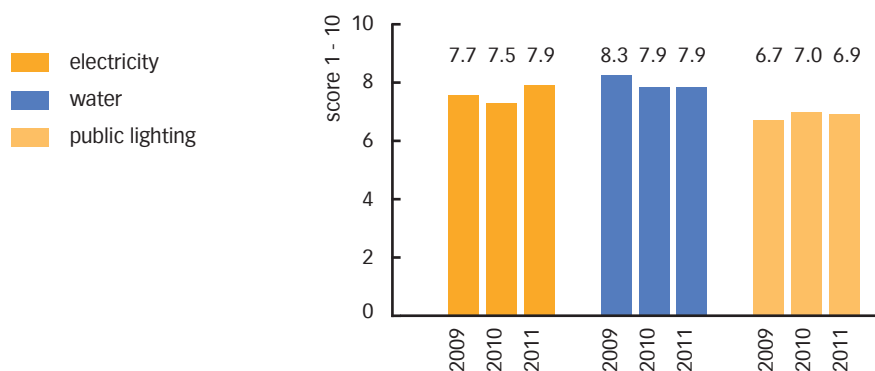
³⁵ See the section Activities abroad.

³⁶ 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;

³⁷ 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 3% and a significance level of 95%.

³⁸ 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 - OVERALL OPINIONS ON THE SERVICES SUPPLIED (2009-2011)



NB: the values for 2010 and 2011 are the average of the two six-monthly surveys for each year.

Assessment of the electricity service

In the periods June/July and November/December 2011, two surveys were carried out on the **quality of the electricity service**, via telephone interview on a total sample of **4,791 customers**, asked to express their opinions.

The sample comprised “domestic customers and “non-domestic” customers on **the protected market**” (residents in Rome and Formello)³⁹ and “domestic” customers and “business” customers on the **free market**. The survey concerning “contact channels” involved customers selected through a “**call back**” procedure, in other words people who had called the free-phone numbers for sales or that for reporting faults a short time before the interview or had gone to the counter and authorized call-back.

For a more accurate interpretation of the results of the surveys, the **technical-operational elements** of the electricity supply service, headed up by Acea Distribuzione, were kept separate, also with regard to the overall opinion, **from those linked to the sales activities** for energy handled by Acea Energia.

The **overall opinion** on the electricity service (both with regard to technical aspects and those concerning sales) remained **satisfactory** between 2010 and 2011, registering a slight increase. It is pointed out that for both the aspects of the service in 2011, the **percentage of those interviewed** who expressed an excellent assessment increased considerably (see table No. 15). The percentage of those interviewed who judged the service overall as **between sufficient and excellent** was also stable and high: **95.5%** (95% Network, 96% Sales).

Table No. 15 – OVERALL OPINION ON THE ELECTRICITY SERVICE (2010-2011)

opinion	votes 1 - 10 (average of the two six-month periods)	2010 (average of the two six-month periods)		2011 (average of the two six-month periods)	
		network	sales	network	sales
excellent	9 - 10	15.5%	11.5%	32.0%	32.5%
good	8	42.5%	41.0%	37.5%	39.0%
sufficient	6 - 7	36.5%	43.5%	25.5%	24.5%
insufficient	1 - 5	5.5%	4.0%	5%	4.0%
total average		7.5	7.4	7.8	7.9

The survey was divided up into **8 macro-components of the electricity service**, between technical and commercial aspects; for each one, the **summary satisfaction index** and

the **satisfaction intensity index** were calculated, disclosing the specific assessments, which came together in the processing of the overall indexes.

³⁹ The precise CSI (satisfied customers and satisfaction intensity) figures relating to the sales area, presented in the section, refer solely to the protected market which by size is more representative of all the customers.

The results for the two six-month periods on the **handling of the technical elements (network)** disclose, in the overall indexes, a satisfactory level of appreciation, with an average of more than 87 out of 100 and a discreet satisfaction intensity (7.5 out of 10); among the four macro-components assessed, as already surveyed last year, technical intervention - after an improvement registered in the first six-month survey, returned to more contained opinions while the others received decidedly positive votes (see chart No. 11). Also the **handling of the commercial and contact-related aspects (sales)** revealed a satisfactory assessment in the two six-month periods (87 out of

100) and a fair satisfaction intensity, with an average of 7.3 out of 10; opinions regarding invoicing and counter contact were particularly good while those concerning the sales call centre and website were down slightly with respect to 2010 (see chart No. 12). Table No. 16 shows, in detail, the **percentages of customer satisfaction** with regard to the **individual quality factors** of the macro-components of the electricity service, both for the technical-operational elements (**network**) and for the commercial and contact related aspects (**sales**), on the basis of which the 2011 summary satisfaction indexes have been drawn up.

Chart No. 11 – ELECTRICITY SERVICE- NETWORK: OVERALL CUSTOMER SATISFACTION CSI AND SATISFACTION INTENSITY CSI AND ON MACRO-COMPONENTS (1st and 2nd half of 2011)

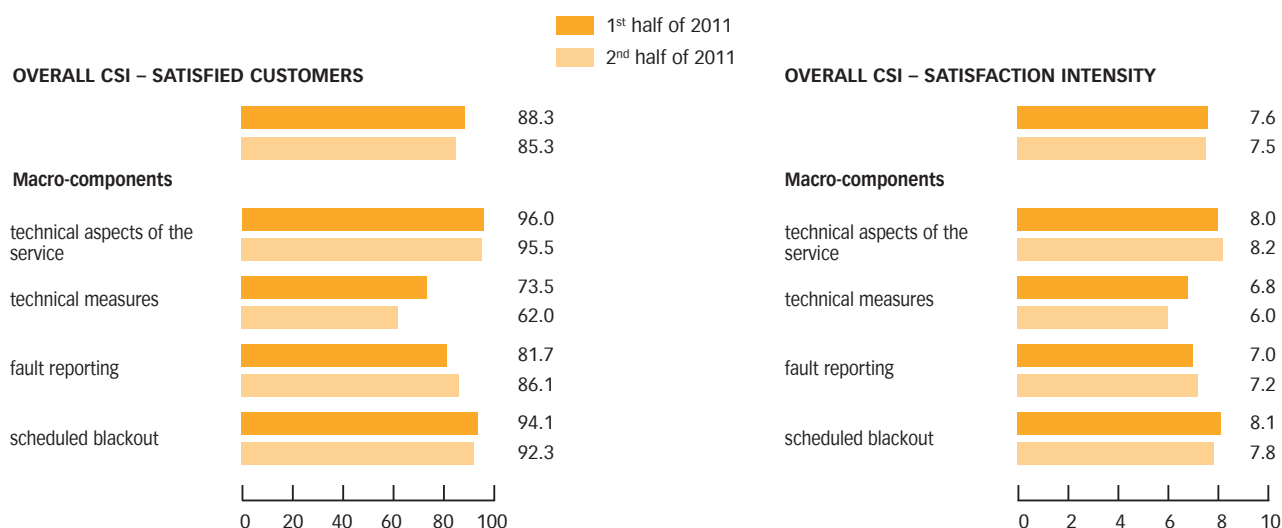


Chart No. 12 - ELECTRICITY SERVICE - SALES: OVERALL CUSTOMER SATISFACTION CSI AND SATISFACTION INTENSITY CSI AND ON MACRO-COMPONENTS (1st and 2nd half of 2011)

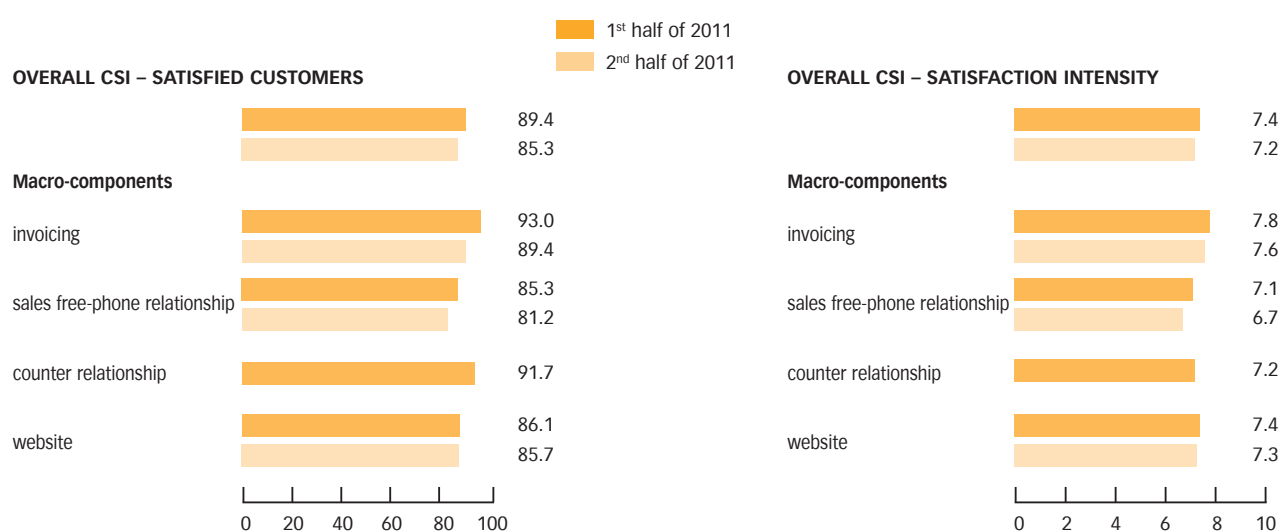


Table No. 16 – ELECTRICITY SERVICE (NETWORK AND SALES): PERCENTAGE OF THOSE SATISFIED ON SPECIFIC ASPECTS (2011)

% of satisfied customers				
NETWORK	1 st half of 2011		2 nd half of 2011	
technical aspects (supply)	<ul style="list-style-type: none"> voltage constancy 96% service continuity 96% 		<ul style="list-style-type: none"> voltage constancy 96% service continuity 95% 	
technical measures	<ul style="list-style-type: none"> courtesy of engineers 84% observance of appointment times 77% measure efficiency 71% 		<ul style="list-style-type: none"> courtesy of engineers 74% observance of appointment times 60% measure efficiency 59% 	
faults free-phone number	<ul style="list-style-type: none"> courtesy of operator 88% clarity of the responses provided 82% correctness of the information 80% waiting time for speaking to the operator 73% 		<ul style="list-style-type: none"> courtesy of operator 91% clarity of the responses provided 89% correctness of the information 82% waiting time for speaking to the operator 85% 	
scheduled black outs	<ul style="list-style-type: none"> notice timescales 95% correctness of information on service resumption timescale 94% manner of receiving communication 93% 		<ul style="list-style-type: none"> notice timescales 92% correctness of information on service resumption timescale 93% manner of receiving communication 92% 	
SALE	1st half of 2011		2nd half of 2011	
invoicing	<ul style="list-style-type: none"> regular sending of bills, without delays 95% correctness of billing amounts 93% ease in reading bills 90% 		<ul style="list-style-type: none"> regular sending of bills, without delays 92% correctness of billing amounts 90% ease in reading bills 87% 	
sales free-phone number	<ul style="list-style-type: none"> courtesy of operator 91% clarity of the responses provided by operator 85% range of possible transactions 85% 		<ul style="list-style-type: none"> courtesy of operator 86% clarity of the responses provided by operator 81% range of possible transactions 84% 	
counter (*)	<ul style="list-style-type: none"> courtesy of operator 95% skill of operator 92% opening hours 92% waiting time to speak to operator 88% 			
website	<ul style="list-style-type: none"> navigation ease 89% range of possible transactions 83% comprehensibility of commercial offers 84% 		<ul style="list-style-type: none"> navigation ease 87% range of possible transactions 83% comprehensibility of commercial offers 85% 	

(*) The item was surveyed only in the first six-month period.

Assessment of the water service

The **quality of the water service perceived by the customers** was surveyed in the period June/July and November 2011/January 2012, by means of telephone interviews carried out on a sample of **3,143 residents** in the municipalities of Rome and Fiumicino.

This sample involved **household customers** and for 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 recently used the free-phone number or gone to the counters, agreeing to be called back.

The **overall opinion** on the water service remained stable between 2010 and 2011, with **97.5%** of those interviewed

expressing a vote of between sufficient and excellent (see table No. 17).

The survey was divided up into **5 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 in the two six-month periods disclose, in the overall indexes, a decisive appreciation for the service (90.5 out of 100) and a discreet satisfaction intensity (7.4 out of 100); with regard to the macro-components relating to the reporting of faults and the sales free-phone number, there was decreased satisfaction in the second half of the year while the quality/price ratio and the technical aspects of the service were greatly appreciated (see chart No. 13).

Table No. 18 presents the **percentages of satisfied customers** in relation to the **individual quality factors** of 4

macro-components⁴⁰ of the water service, on the basis of which summary satisfaction indexes have been drawn up.

Table n. 17 – OVERALL OPINION ON THE WATER SUPPLY SERVICE IN ROME (2010-2011)

opinion	votes 1 - 10	2010 (average of the two six-month periods)	2011 (average of the two six-month periods)
excellent	9 - 10	24%	26%
good	8	42.5%	40%
sufficient	6 - 7	30.5%	31.5%
insufficient	1 - 5	3%	2.5%
total average		7.8	7.9

Chart No. 13 – WATER SERVICE: OVERALL CUSTOMER SATISFACTION CSI AND SATISFACTION INTENSITY CSI AND ON MACRO-COMPONENTS (1st and 2nd half of 2011)

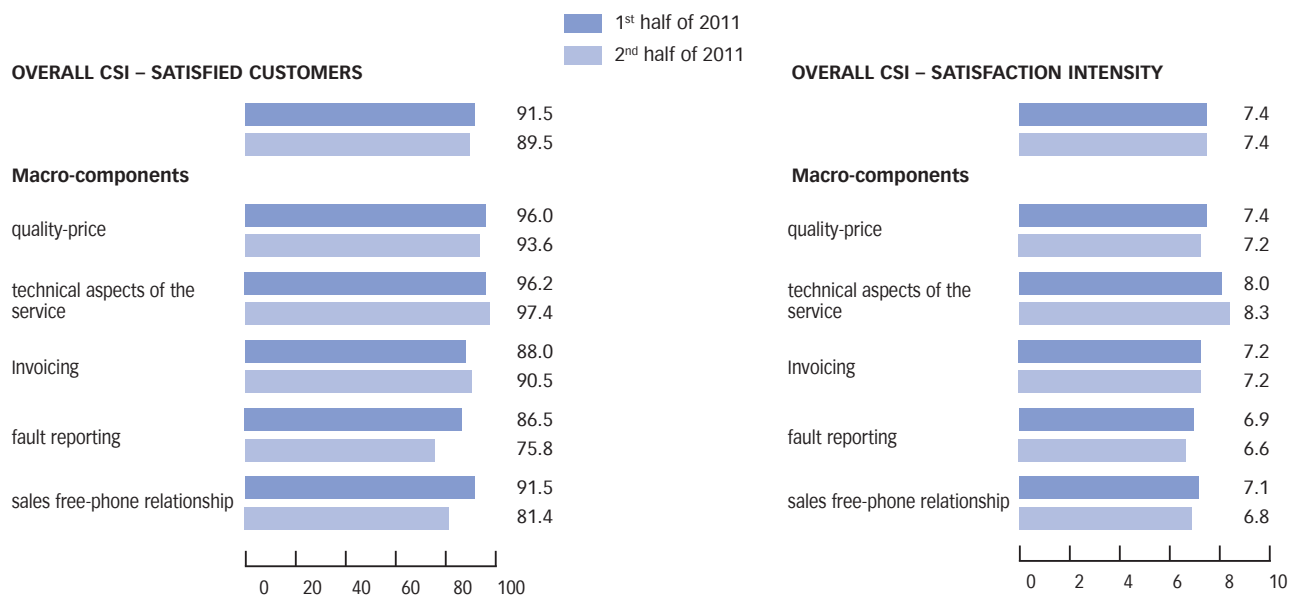


Table No. 18 – ROME WATER SERVICE: PERCENTAGE OF THOSE SATISFIED ON SPECIFIC ASPECTS (2011)

	% of satisfied customers			
	1 st half of 2011		2 nd half of 2011	
technical aspects (supply)	• supply continuity	98%	• supply continuity	99%
	• water pressure level	95%	• water pressure level	96%
invoicing	• clarity and ease of bill reading	91%	• clarity and ease of bill reading	95%
	• correctness of billing amounts	88%	• correctness of billing amounts	95%
	• regularity in meter reading	84%	• regularity in meter reading	81%
faults free-phone number	• courtesy of operator	96%	• courtesy of operator	92%
	• skill of operator	91%	• skill of operator	87%
	• waiting time for speaking to the operator	78%	• waiting time for speaking to the operator	50%
sales free-phone number	• courtesy of operator	96%	• courtesy of operator	92%
	• skill of operator	95%	• skill of operator	88%
	• waiting time for speaking to the operator	84%	• waiting time for speaking to the operator	68%

⁴⁰ The "quality-price" ratio component has been surveyed using just one question, without additional analysis factors.

Box – Satisfaction surveys on the water service in other ATO 2 – Central Lazio municipalities and other ATOs

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

In 2011, 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 opinions of customers in relation to investments and improvements made in the area since Acea became responsible for this service. Overall, 2,409 residents were interviewed: 1,706 in 5 standard municipalities, in other words run without criticalities (Galliciano, Segni, Cerveteri, Mentana, Fonte Nuova), and 703 in 2 municipalities "under observance" (Zagarolo and Frascati); the overall opinion revealed was equal to 7.1 (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 Group companies that manage the integrated water service in other ATOs (in Lazio, Campania, Tuscany and Umbria), sharing with these companies both the layout of the surveys and their results.

Assessment of the public lighting service

The quality of the public lighting service perceived by the citizens of Rome was surveyed in the periods May and November 2011, by means of telephone interviews carried out on a total sample

of **2,411 inhabitants**, representative of all the municipalities, grouped into 2 macro-areas: North and South Rome.

The **overall opinion** remained stable with respect to 2010 and, in 2011, **85%** of those interviewed expressed a vote ranging between sufficient and excellent (6-10) (see table No. 19).

Table No. 19 – OVERALL OPINION ON PUBLIC LIGHTING IN ROME (2010-2011)

opinion	score 1 - 10	2010 (average of the two six-month periods)	2011 (average of the two six-month periods)
excellent	9 - 10	10.5%	12%
good	8	29.5%	27%
sufficient	6 - 7	46.5%	46%
insufficient	1 - 5	13.5%	15%
total average		7	6.9

The survey concerned **3 macro-components of the public lighting service**; for each one, the **summary satisfaction index** and the **satisfaction intensity index** were calculated and the overall summary satisfaction indexes defined.

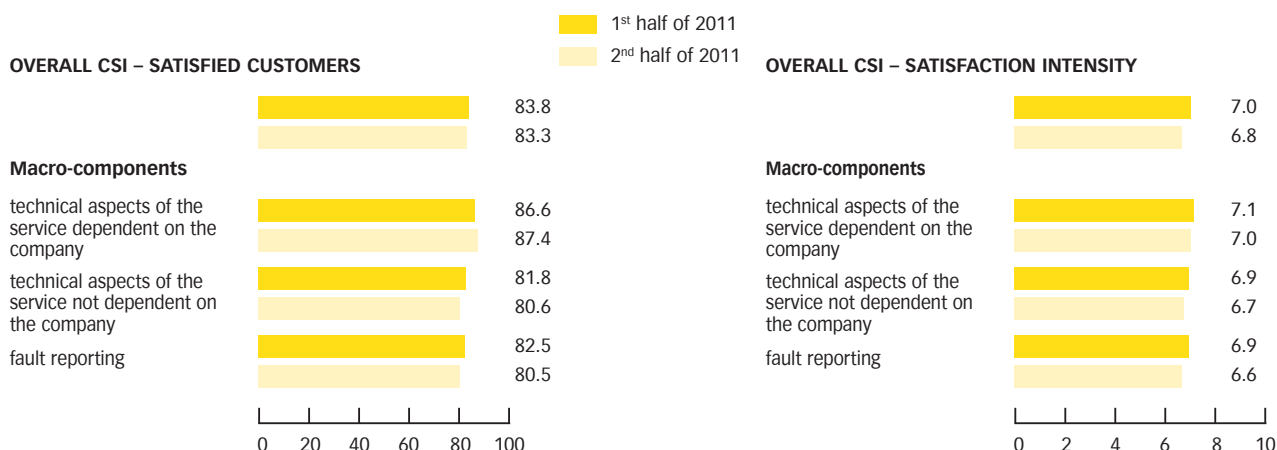
With regard to the **"technical aspects of the service"**, differentiation was made between those attributable to Acea operations - service continuity in area or city; switching on and off times; integration of the lampposts with the urban decor; colour of the lights - and those dependent on other parties⁴¹ - presence and extension of the service; lighting intensity of the

streets, pavements, parks and gardens lighting; lighting of monuments - and represented graphically by two separate items.

The results of the two six-month periods disclosed appreciation for the service in its entirety (83 out of 100) and a fair satisfaction intensity (6.9 out of 10); telephone contact for reporting faults, despite remaining at good satisfaction levels, in the second half of the year registered a slight deterioration while technical aspects attributable to the company received better opinions (see chart No. 14).

⁴¹ 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 lighting intensity of the streets, pavements, parks and gardens lighting can also be altered by factors unconnected with company management, such as the presence of tree foliage, pending pruning activities.

Chart No. 14 – PUBLIC LIGHTING SERVICE: OVERALL CUSTOMER SATISFACTION CSI AND SATISFACTION INTENSITY CSI AND ON MACRO-COMPONENTS (1st and 2nd half of 2011)



The percentages of satisfied customers in relation to the individual quality factors of the macro-components of the public lighting service, on the basis of which the summary

satisfaction indexes have been drawn up, are illustrated in table No. 20.

Table No. 20 – PUBLIC LIGHTING SERVICE: PERCENTAGE OF THOSE SATISFIED ON SPECIFIC ASPECTS (2011)

		% of satisfied customers	
		1 st half of 2011	2 nd half of 2011
technical aspects attributable to Acea	• colour of light	90%	90%
	• switching on/off times	90%	90%
	• service continuity in city	81%	82%
technical aspects attributable to third parties	• lighting of historic monuments/squares	91%	92%
	• presence of service in city	83%	83%
	• intensity of street lighting	80%	76%
faults free-phone number	• courtesy of operator	90%	88%
	• skill of operator	87%	82%
	• ease in finding the line free	77%	78%
	• waiting time for speaking to the operator	75%	71%

Actual quality supplied

The quality of the services provided is influenced by numerous factors upstream from the relationship with the customers, or in any event independent from the same, such as the measures aimed at improving the infrastructures (networks and plants), the optimisation of the management processes, the monitoring

of the quality parameters of the products (for example of the water distributed or returned to the environment), the efficacy and promptness of measures in the event of faults. 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 Electricity and Gas Authority.
- 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.

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 may also be entitled to automatic rebates in the event of failure to comply with quality standards.

Acea SpA has a **Quality management system** compliant with the **UNI EN ISO 9001: 2008 standard**⁴², confirmed in 2011, for the design, construction and maintenance activities on water service and public lighting networks and systems carried out by the operating companies. Furthermore in 2011, **Acea Ato 2** achieved the autonomous Quality Certification as per **UNI EN ISO 9001: 2008**.

Quality in the energy sector

Acea plans and carries out measures for **modernising and extending the electricity infrastructures** - high, medium and low voltage networks, primary and secondary stations - in the municipal area of Rome, on a consistent basis with the

Regulatory plan for the electricity networks, the needs which emerge during running of the same and the demand for new connections.

The appointed company - Acea Distribuzione SpA - designs and carries out measures for the modernisation or construction of new lines and stations, installation of equipment, development of remote control and application of advanced technologies, aimed at **guaranteeing the quality of the service**, in terms of available power and continuity of the electricity supply and **responding adequately to the rising demand for energy**, linked for example to urban expansion (see the main measures in table No. 21).

After four years of activities, **the Road Map project for the continuity of the service** has come to an end, developed by a team within Acea Distribuzione for the purpose of putting together a global strategy aimed at **improving the continuity performance of the service** according to the indicators established by the Authority, as well as optimising operating efficiency. The results achieved also led the Electricity and Gas Authority in 2011 to acknowledge Acea Distribuzione, within the sphere of the incentive and fine system which disciplines the sector, an **incentive of more than Euro 5 million**, in relation to the 2010 targets.

The installation project for the **Petersen systems** at the primary stations, to improve the black-out frequency and duration indicators, **continued in 2011**, leading - at year end - to the operating of the system in **44 stations** (out of a total of 68). Furthermore, an application of the electric calculation programme **DigSILENT PowerFactory** was developed, used for analysis of the networks, capable of guiding the running to pursue **significant reductions in physical energy losses** (see related box).

The projects centred on innovative management of the networks included the launch in January 2011 of the **Smart Grid** pilot project⁴³, which is expected to be completed in 2012 (see *Environmental issues, Energy*) and the **Smart Network Management System** project⁴⁴ centred on the management efficiency of the network, which will be developed in 2012.

Investments in 2011 pertaining to Acea Distribuzione amounted in total to **Euro 102.3 million**.

⁴² 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.

⁴³ 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.

⁴⁴ The project entitled Smart Network Management System was forwarded 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. In order to be able to access the subsequent stages, Acea must wait to receive the eventual invite from the MiSE (Ministry of Economic Development) to draw up the executive projects and to formally communicate the start of activities.

Table No. 21 – MAIN MEASURES IN 2011 FOR THE MANAGEMENT AND DEVELOPMENT OF ELECTRICITY NETWORKS AND STATIONS

HV lines and primary stations	<p>An alternative project has been presented and approved, involving underground cables, to power (at 150 kV) the Primary Casal Palocco stations from the Vitinia PS which will allow a significant improvement in the running reliability of all the primary stations which power the coastal areas (Casal Palocco PS, Lido PS and New Lido PS) and the supplementary project has been presented for the construction of a new primary station in the Castel Romano area to support the increase in demand in the area. Furthermore, during 2011 activities were carried out for the renovation, extension and reconstruction of primary stations.</p> <p>The Petersen project continued during 2011 with the installation of the system at 8 primary stations, thus at the end of 2011 there were 44 (out of a total of 68) primary stations where the system is installed.</p>
HV and MV protection and measures	<p>Numerous measures were carried out to arrange, calibrate and bring onto stream electricity protection systems for 45 new MV line bays; maintenance measures (checking of the functions/tests & inspections) at primary stations: switches, 470 stanchions, 25 transformers, etc.. 21 network analyzers were installed to check voltage quality and earth resistance measures were carried out at 2,570 secondary stations and 3 primary stations; the section and contact voltages were checked on 58 secondary stations and 3 primary stations. Electrical protections and automated elements were arranged, relating to the activation of the Petersen systems and the creation of the MV network automation system in 22 primary stations. The electrical protection systems of 38 recloser devices were tested, inspected, calibrated and brought onto stream.</p>
MV and LV lines	<p>For the modernisation and enhancement of the network, gradually being transformed from 8.4 kV to 20 kV, involving extensions and renovations, around 223 km of 20 kV MV underground cables were laid; around 191 km of LV cables laid involving extensions and renovations aimed at replacing old and worn parts or making up for insufficient parts</p> <p>150 network improvement measures were carried out as part of the Road Map project aimed at improving the service quality;</p> <p>extraordinary maintenance on MV overhead lines:</p> <p>99 works for the replacement of equipment, supports, conductors, etc..</p> <p>around 585 km of lines inspected so as to check the state of maintenance and functioning.</p>
secondary (MV and LV) and remote control stations	<p>To satisfy the demand for new connections to the network and the increases in voltage of existing customers, 210 secondary stations were constructed or extended;</p> <p>883 operative stations were rebuilt, to adjust them to 20 kV, make them remote control-ready or renew equipment furthermore, 801 extraordinary maintenance measures and 370 ordinary maintenance measures were carried out on the secondary stations;</p> <p>remote control extended to a further 405 secondary stations, reaching around 5,100 remote control stations as of 31 December 2011.</p>

Box – The DigSILENT programme for optimising the medium voltage network

During 2011, procedures were defined in the DigSILENT PowerFactory programme aimed at optimising the “normal running layout” of the medium voltage electricity distribution network. Defining the normal layout structure of a line (feeder) means identifying the secondary station where the sectioning device must be kept open. The purpose of these procedures is to find a radial running configuration of the MV networks capable of optimising a number of parameters (multi-objective function) which makes it possible to minimise the losses, improve the voltage profiles and maximise the overall reliability of the system.

Each factor is associated with a parameter which can be modified in accordance with the weight one wishes to associate with this. The overall reliability of the system takes on form by means of a uniform distribution of the secondary stations and the customers on the various lines, considering that today it is possible to precisely identify (thanks also to the technology of the new meters), and no longer estimate the number of customers associated with each transformer. The amendment of the running configuration (optimisation) involves finding the sectioning points along the MV backbones differing from those of the initial layout, so that the multi-objective function is satisfactory in observance of precise technical constraints. The main constraints taken into consideration include:

- the running load of the sections of lines must not be greater than the definable fraction of the nominal capacity of each section;
- observance, for each MV node of the system, of the voltage limits (the voltage value must always be between a minimum value and a maximum value which can be pre-established).

The checking of the procedure applied to the Acea Distribuzione MV network, carried out in July 2011, has shown that the potential of a reduction in the losses exists, even as far as 17% (corresponding to around 11,000 MWh).

Acea Distribuzione, which in 2011 carried out **action preparatory to the implementation of an Integrated Quality, Environment and Safety Management System**, continued during the year to apply the **system for controlling the quality of the work** tendered out, via onsite checks, carried out by the Site Inspection Unit, and the monitoring of work quality and safety parameters, which provide merit ratings (reputational indexes) which can also be used for pre-establishing the criteria for awarding the contracts for tendered work (see related box in the *Suppliers* section).

In conclusion, work to **install digital meters**, for remote management continued care of end customers: during 2011, around **100,000 digital meters** were installed, bringing the **overall number to 1,550,000 operating meters as of 31 December 2011**, in line with forecasts, achieving the coverage of 95% of active customers, **in line with the objective** envisaged by the Authority and by the business plan.

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 **Electricity and Gas Authority (AEEG)**, which periodically reviews them, gradually introducing more stringent standards. The **Integrated text for the regulation of the quality of the electricity distribution, measure and sales services for the regulation period 2008-2011** (Resolution No. 333/07) is in force, with subsequent additions⁴⁵. 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**⁴⁶, 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. 22, 25, 26, 27). Each year, Acea forwards the results achieved to the AEEG, which are then checked, and communicates them, as laid down, to its customers, attaching them to the bill.

A quality parameter, introduced in 2009, 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. 24)

Electricity distribution and metering activities are carried out by **Acea Distribuzione**; the **2011 performances** relating to the **"specific" level of commercial quality**, both for low voltage supplies to households and other customers and for medium voltage supplies, reported **average execution times for the services considerably lower than the reference parameters** and percentages of observance of the deadline, established by the Authority for the execution of the services, 98% higher for 12 services out of 19 subject to regulation (see table No. 22). Compared with the 2010 performances, in detail there was an improvement in the timescales for "disconnecting the supply" and for "restoring the supply following a breakdown of the meter".

With regard to **"general" commercial quality levels** for the **distribution and reading** activities, once again in 2011 the only standard for which the percentage of services to be provided by the established deadline was not fulfilled was "replying to written complaints/requests for information concerning readings" (for both low and medium voltage supplies), whereas the performance levels achieved for all the other services were fully satisfied (see table No. 26).

In conclusion, with regard to the two specific quality levels which regulate the **communication of the technical data** from the Distributor to the Seller, the 2011 performances reported average timescales clearly lower than the parameters indicated by the Authority (see table No. 24).

With regard to the **"general" and "specific" commercial quality levels** relating to **sales activities**, carried out by Acea Energia⁴⁷, by means of Resolution No. 164/08 the AEEG introduced, as from July 2009, new methods for calculating the performances and the distinction of certain services. The activities for the migration of data from the previous system (CRM SIU) to **the new IT system (CRM Neta) for the handling of the customers of the protected market** had a significant impact on the core activities of Acea Energia leading, amongst other things, to an accumulation of requests which it was not possible to deal with by the end of the year and which therefore encumbered the 2011 performances (see tables No. 25 and 27).

⁴⁵ The complete text of Resolution No. 333/07, amended and supplemented by subsequent provisions, is available on-line on the Electricity and Gas Authority website.

⁴⁶ 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.

⁴⁷ It should be recalled that during the year under review the winding up of the JV between Acea SpA and GdF Suez Energia Italia SpA was finalised and that, as from April 2011, the sales activities were seen to by Acea Energia, wholly-owned by Acea SpA.

Table No. 22 – “SPECIFIC” LEVELS OF COMMERCIAL QUALITY AND PERFORMANCES ACHIEVED BY ACEA DISTRIBUZIONE (2010-2011)
(figures communicated to the AEEG)

service	AEEG parameters	2010				2011			
		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
		working days	%	working days	%	working days	%	working days	%
low-voltage supply		household use		non-household use		household use		non-household use	
estimate for work on LV networks execution	20 working days	7.90	99.77	8.06	99.78	7.61	98.79	8.13	98.28
of simple work	15 working days	5.40	99.76	5.20	99.84	5.00	98.87	5.30	98.33
connection of supply	5 working days	0.59	99.61	0.63	99.06				
disconnection of supply	5 working days	3.09	99.04	3.28	96.74	1.79	98.89	1.92	98.57
re-connection following disconnection due to payment arrears	1 working day	0.18	99.54	0.24	99.62	2.30	99.24	2.39	99.17
resumption of the supply following faults of the metering equipment (for work day requests between 8.00 a.m. and 6.00 p.m.)	3 hours	2.23 hours	83.71	2.19 hours	84.30	2.24 hours	84.76	2.17	85.20
resumption of the supply following faults of the metering equipment (for non-work day requests between 6.00 p.m. and 8.00 a.m.)	4 hours	2.11 hours	90.94	2.07 hours	91.79	1.96 hours	93.76	1.87	96.78
communication of outcome of metering equipment check, on request	15 working days	6.17	99.94	6.08	100	3.31	99.95	3.39	100
communication of outcome of voltage supply check, upon request	30 working days	16.75	100	27.09	72.73	41.33	66.67	24.00	66.67
punctuality of the personalized appointments	2 hours after punctuality range	(.)	99.75	(.)	99.90	(.)	99.36	(.)	99.72
punctuality of the appointments	2 hours after punctuality range	(.)	99.84	(.)	99.90	(.)	99.46	(.)	100

Table No. 23 – AUTOMATIC COMPENSATION FOR CUSTOMERS IN THE EVENT OF FAILED OBSERVANCE OF THE SPECIFIC QUALITY LEVELS (2011)

amounts in force (Euro)	type of customer
30	low voltage domestic use customers
60	low voltage non-domestic use customers
120	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.

service	2010			2011	
	AEEG parameters max time for execution of services	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
		working days	%	working days	%
medium-voltage supply		end customers		end customers	
execution of simple work	30 working days	6.83	100	7.17	100
connection of supply	5 working days	0.27	85.71	2.23	94.12
disconnection on request of customers	7 working days	4.46	91.30	3.23	97.14
re-connection following disconnection due to payment arrears	1 working day	0.47	100	0.53	96.23
communication of outcome of metering equipment check, on request	15 working days	3.78	100	4.00	100
communication of outcome of voltage supply check, upon request	30 working days	5.00	100	-	-
punctuality of the personalized appointments	2 hours after punctuality range	(.)	100	(.)	99.46
punctuality of the appointments	2 hours after punctuality range	(.)	99.24	(.)	100

(.) Not applicable.

Table n. 24 – “SPECIFIC” LEVELS OF COMMERCIAL QUALITY: PROMPTNESS OF THE DISTRIBUTOR IN COMMUNICATING THE TECHNICAL DATA TO THE SELLER (2010-2011) (figures communicated to the AEEG)

service	2010			2011	
	AEEG parameters max time for execution of services	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
	working days	working days	%	working days	%
technical data (which can be acquired by reading a meter)	10 working days from receipt of request	5.05	97.27	7.02	85.73
technical data (which can be acquired by reading a meter)	15 working days from receipt of request	9.81	90.34	9.85	85.22

NB: In the event of non-observance of the above standards, the customer-vendor receives standard automatic compensation amounting to Euro 20.

Table No. 25 – “SPECIFIC” LEVELS OF COMMERCIAL QUALITY AND PERFORMANCES ACHIEVED BY ACEA ENERGIA (2010-2011) (figures communicated to the AEEG)

service	2010		2011
	AEEG PARAMETERS maximum time for execution of services	percentage of services carried out within maximum time	percentage of services carried out within maximum time
invoicing adjustments	90 calendar days	45.78%	25%
adjustments to double billing	20 calendar days	/	/
justified reply to written complaints	40 calendar days	65.6%	35.6%

NB: the figures refer to services carried out for protected service customers (mainly households and small businesses), which in the event of non-observance of the above standards, receive automatic standard compensation of Euro 20. In the period, no requests were received for adjustments to double billing.

Table No. 26 – “GENERAL” LEVELS OF COMMERCIAL QUALITY AND PERFORMANCES (2010-2011) (figures communicated to the AEEG)

service	2010				2011				
	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 service	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 service	percentage of services carried out within max. time
		working days	%	working days	%	working days	%	working days	%
low-voltage supply		household use		non-household use		household use		non-household use	
execution of complex work	85% within 60 working days	14.36	98.34	10.68	99.40	12.50	100	14.10	99.15
response to response to written complaints /written requests for information regarding the distribution activities	90% within 20 working days	16.02	97	13.73	100	13.47	97.91	13.14	98.87
response to written complaints /written requests for information regarding metering activities	90% within 20 working days	26.31	37	26	33	27.54	28.35	29.56	30.68

service	2010		2011		
	AEEG parameters minimum percentage of services to be carried out within max. time	average effective time for execution of services working days	percentage of services carried out within max. time %	average effective time for execution of services working days	percentage of services carried out within max. time %
medium-voltage supply		end customers		end customers	
estimate for work on MV networks	90% within 40 working days	14.39	100	12.47	96.10
execution of complex work	90% within 60 working days.	9.08	100	8.70	100
response to written complaints/written requests for information regarding the distribution activities	95% within 20 working days	8.24	100	9.20	99.33
response to written complaints/written requests for information regarding metering activities	95% within 20 working days	41.0	0	23.50	50.00

**Table No. 27 – “GENERAL” LEVELS OF COMMERCIAL QUALITY AND PERFORMANCES ACHIEVED BY ACEA ENERGIA (2010-2011)
(figures communicated to the AEEG)**

service	2010		2011
	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	19.14%	27.88%
response to written requests for billing adjustments	95% within 40 calendar days	49.98%	43.25%

The **Authority** defines and updates the reference parameters of the **“technical” quality** of the service, relating to the **continuity of the electricity supply**, envisaging an incentive system for the operator (bonuses and fines) and compensation for customers (Resolution No. 333/07 and subsequent additions). During 2011, thanks to the performance results achieved by Acea Distribuzione with regard to the duration and number of black outs (see tables No. 28-29), if confirmed

following the preliminary check of the AEEG, no fines should have to be paid to the Authority.

The **average annual number of blackouts** for low voltage takes into account both long blackouts (> 3 minutes) and short blackouts (≤ 1 minutes but over one second). The figures for the three-year period 2009-2011 disclose a gradual improvement in the performances of Acea Distribuzione.

Table No. 28 – ELECTRICITY SERVICE CONTINUITY INDICATORS FOR LV CUSTOMERS: BLACKOUT DURATION AND IMPROVEMENT PERCENTAGES (2009-2010: figures certified by the AEEG; 2011 provisional figures communicated to the AEEG, pending certification)

	average cumulative duration of long blackouts without warning attributable to the operator for LV customers per year (minutes)			improvement percentage	
	2009	2010	2011	2011 vs. 2009	2011 vs. 2010
high concentration	43.26	47.78	34.75	19.7%	27.3%
average concentration	65.53	66.84	48.04	26.7%	28.1%
low concentration	129.86	113.46	78.14	39.8%	31.1%

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”.

Table No. 29 – ELECTRICITY SERVICE CONTINUITY INDICATORS FOR LV CUSTOMERS: AVERAGE NUMBER OF BLACKOUTS AND IMPROVEMENT PERCENTAGES (2009-2010: figures certified by the AEEG; 2011: provisional figures communicated to the AEEG, pending certification)

	average number of blackouts without warning attributable to the operator for LV customers per year			improvement percentage	
	2009	2010	2011	2011 vs. 2009	2011 vs. 2010
high concentration	2.51	2.39	1.85	26.3%	22.5%
average concentration	4.84	4.92	3.85	20.5%	21.7%
low concentration	7.74	5.23	4.57	41.0%	12.5%

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”.

The authority also introduced the regulation of **prolonged or extended blackouts** with a duration greater than the established standards, **originated at any voltage level** of the electricity system (both low and medium voltage) and **for any reason**. 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 2011, total customers involved in prolonged or extended blackouts numbered 18,453 (compared with 11,287 customers involved in 2010). The considerable increase with respect to 2010 is essentially attributable to 20 October 2011 when Rome was subject to a violent downpour.

In conclusion, the regulatory system envisages **automatic compensation for medium voltage customers endowed with certification of the adequacy of their plants⁴⁸ in the event of long blackouts** in the electricity supply **greater than**

⁴⁸ 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.

the standard established. In 2011, 308 customers suffered blackouts higher than the standard, and of these only 48 (demonstrating that their plants were certified) were able to receive the automatic compensation (see table No. 30); in the

other cases, the supplier paid the fines to the electricity sector Equalization Fund, rather than to the customer. Accordingly, the Authority intended both to encourage suppliers to improve performances and to make customers more responsible.

Table No. 30 – MV CUSTOMERS: BLACKOUTS AND COMPENSATION (2009-2011)

	high concentration			average concentration			low concentration		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
total No. of customers	2,306	2,282	2,278	304	304	324	216	215	245
No. of customers with blackouts beyond the standard	1,157	257	245	23	32	46	28	22	17
of which No. to be compensated	11	12	40	1	3	4	3	1	4

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".

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 km² (equivalent to around 7 times the area of Milan) as per the formalities established in the *Service Agreement*⁴⁹ entered into between the Company and the Municipality Authority.

The design, implementation and maintenance of the plants is managed by **Acea Distribuzione** which follows procedures compliant with Acea SpA's **Quality Management System according to the UNI EN ISO 9001:2008 standard**⁵⁰. Furthermore, **Acea Illuminazione Pubblica SpA**, established in 2010, came into operation during 2011⁵¹ and in particular saw to 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 with the Municipal Authority⁵², is focused on roads, areas and sites, previously assessed, where the enhancement of the lighting may facilitate the mobility and safety of the citizens.

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.

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. 32 and 33).

During 2011, Acea installed 2,103 lighting units using LED sources (Light-Emitting Diode), including new units and modernisations (+53% with respect to the 1,370 installed in 2010), following, in an increasingly prominent manner, the choice of applying this new lighting technology, **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, besides the increase in LED installations, included:

- **measures on over 15,800 lighting units**, of which around **7,900 new units installed** (of which **1,776 LED**). The latter includes the **3,114 new units** (of which 876 LED) of the **High Productivity** project, dedicated to the implementation the Light Plan, which during the year mainly concerned the XIII and XX municipal areas;
- the progressive continuation of implementing the **geographic information system (GIS project)** for public lighting systems and networks in the municipal area of Rome,

⁴⁹ 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.

⁵⁰ Acea SpA's ISO 9001:2008 Certification in fact covers the processes relating to the global and integrated management of the functional and artistic public lighting systems.

⁵¹ Besides launching the "High Productivity" plan in Rome, Acea Illuminazione Pubblica SpA, carried out a number of measures during the year - construction of systems and lighting requalification - in Todi and San Vittore del Lazio.

⁵² Resolution No. 252 of the Municipal Council of Rome, session held on 3 August 2010.

launched in 2009 so as to make the immediate reconnaissance of the portions of network on which to carry out work possible. During 2011, the development stage of the system was completed and the digitalisation of the network continued **for around 30% of the total**. A specific training programme was also planned for the adequate and extended use of the GIS-IP system;

- 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;

- the activities for the analysis and review of the phases of the planning and realisation process for new public lighting systems, carried out with the aim of **digitally handling all the technical, economic and commercial documentation** produced, streamlining the processes and minimising the use of paper (see related box);
- the lighting of the new Ponte della Musica (Music Bridge), the artistic monumental lighting of the Basilica di San Giovanni in Laterano, the modernisation of the lighting systems of the Pantheon fountain and Ponte Vittorio Emanuele II using LED technology (see related boxes).

Box – Process Digitalisation project

During 2011, Acea Distribuzione's Public Lighting Unit developed a precise analysis of every stage of the planning and construction process for the public lighting systems with the aim of being able to **handle all the technical, economic and commercial documentation generated throughout the entire production process in a digital manner**: from the order requested by the client to the construction of the system.

The main innovation aspects which will be dealt with by a pilot project to be implemented in 2012 will be:

- the construction of a complete system for the management and distribution of the documentation **based on the Web**, which will permit the operating units to organise and distribute the various types of digital contents referring to an individual database. Consequently, the various and numerous paper-based documents such as: the internal and external communications, project drawings, metric calculations, invoicing, technical compliance certificates, reports and in general all the electronic files generated or already present in-house, will have to be integrated in a single database and handled efficiently for an operational and daily use which does not require particular IT know-how, cancelling the current need to use paper documents on a massive scale;
- the tracing of the information flows so as to follow and control the stage of completion of the activities during the production process;
- the accessibility, for all the registered users, to the contents archived directly via Web browser;
- the checking of the potential with the professional sphere of modern digital devices such as PC or iPad tablets so as to handle various applications software already used in-house (Auto CAD, GIS, Viewdraw, MS Office);
- the checking of the broadband connection capacities also in the operating phases outside headquarters such as for example inspections for planning and inspections for the running of work sites;
- the checking of the possibility of handling georeferenced tracing operations for the systems and the main components installed in the area via the use of digital devices, availing of a direct alignment of the executive projects drawn up;
- the checking of the possibility of remotely accessing all the databases and applications programmes already present in-house (such as SAP, Intranet, GIS, Viewdraw).

Box – The Ponte della Musica (Music Bridge)

In May 2011, the Ponte della Musica was opened in Rome, featuring hi-tech design, and with a single suspended span, constructed in wood, cement and steel. Designed by the architect Kit Powell, the new bridge, 190 metres long, reserved for pedestrians, bicycles and ecological vehicles, crosses the River Tiber connecting Lungotevere Flaminio – and the Auditorium area – with Lungotevere Maresciallo Cadorna – the Foro Italico area.

40 projectors have been installed along the metallic structure of the **Ponte della Musica** so as to illuminate the walkways by means of the use of specifically studied optics. The lighting project also envisaged the adaptation of the systems in the two squares adjacent to the two banks of the river where the bridge has its bridgehead, with the installation of **8 design supports and framework**. The system was created minimising the visual impact of the lighting units on the structure and choosing urban design supports in line with the new architectonic creation.

The second stage of the project, currently underway, envisages the installation of 23 ceiling devices and 22 urban design supports, in continuity with the character of the first phase, on the bike lane and the squares adjacent to the bridge, and the installation of another 24 projectors for the accent lighting of the bridge's structure.

Table No. 31 – PUBLIC LIGHTING IN ROME: THE NUMBERS (2011)

lighting units (No.)	181,991 (+3.8% compared with 2010)
• artistic-monumental lighting units (No.)	• approximately 11,000
street lamps (No.)	205,952 (+3.6% compared with 2010)
MV and LV electricity network (km)	7,509 (+2% compared with 2010)

Table No. 32 – MAIN PUBLIC LIGHTING MEASURES ON LIGHTING UNITS (2011)

type of measures	No. of lighting units
creation of new lighting units (including artistic)	7,919 lighting units (of which 1,776 LED), equal to the illumination of approximately 200 km of road (+66% with respect to 2010)
modernisation (including artistic)	1,692 lighting units (of which 327 LED)
transformation of the 8.4 kV MV circuits to LV standard	167 transformer stations
safety measures	6,096 lighting units

Table No. 33 – SCHEDULED AND EXTRAORDINARY PUBLIC LIGHTING REPAIRS AND MAINTENANCE (2011)

type of measures	No.
checking of corroded lampposts	40,639 lampposts checked (+4,5% rispetto al 2010)
replacement of bulbs before lighting flow is compromised	66,045 bulbs replaced
reinstallation of corroded lampposts or those knocked down due to accidents	3.041 lampposts reinstalled (+7,2% rispetto al 2010)

Acea monitors the **quality parameters for the public lighting service** concerning the **fault repair timescales**, calculated as from the arrival of the report⁵³.

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 fines⁵⁴.

The **average repair times** (TMR) for the functioning of the systems **deployed by Acea in 2011** for the various types of fault **were clearly shorter than the TMRA and had improved further**, on a consistent basis with the trend revealed over the last five years (see table No. 34 and chart No. 15)

Table No. 34 – PUBLIC LIGHTING FAULT REPAIRS: ACEA FINES, STANDARDS AND PERFORMANCES (2010-2011)

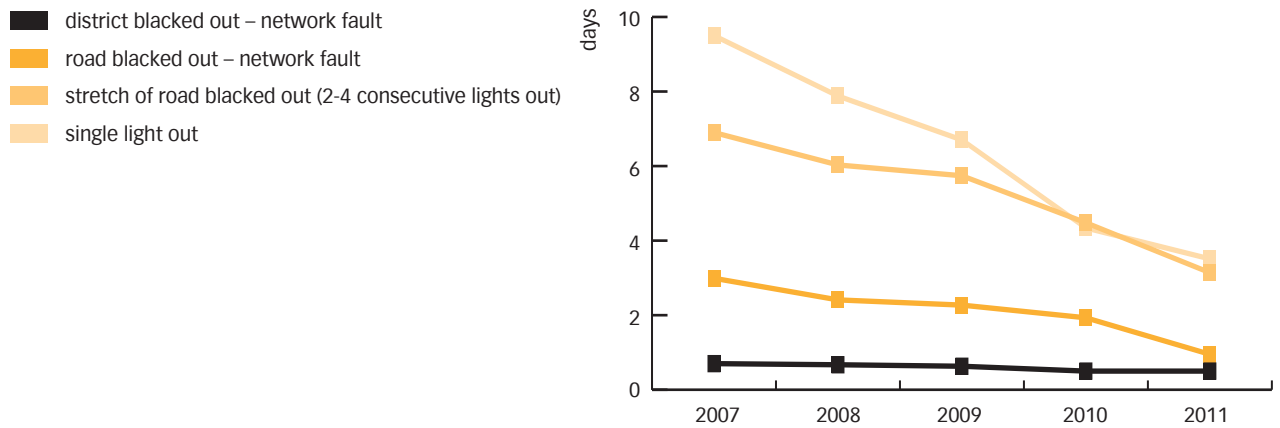
type of fault	fine per day of delay	service standards as per Agreement (*)		Acea service	
		TMRA (permitted average repair time)	TMAX (maximum repair time)	TMR (average repair time)	
		Euro	working days	working days	2010
blacked out district – MV network fault	70	1	1	< 1	< 1
blacked out street – MV or BV network fault	50	5	8	1.93	0.95
blacked out stretch (2-4 consecutive streetlamps out)	50	10	15	4.48	3.14
street lamps not working: individual light, strut, post	25	15	20	4.34	3.51

(*) 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.

⁵³ The reports considered for the calculation of the service levels do not include those attributable to damage caused by third parties and those relating to faults on the same stretch of network subsequent to the first.

⁵⁴ 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 2011, total reports subject to fine calculation amounted to 12,328 (- 0.1% when compared with 2010), of which 75 (equating to 0.6%) concluded after the maximum deadline; for the total of the fines for the year, reference should be made to the box dealing with procedures, bonuses and fines in the section Institutions and the Company.

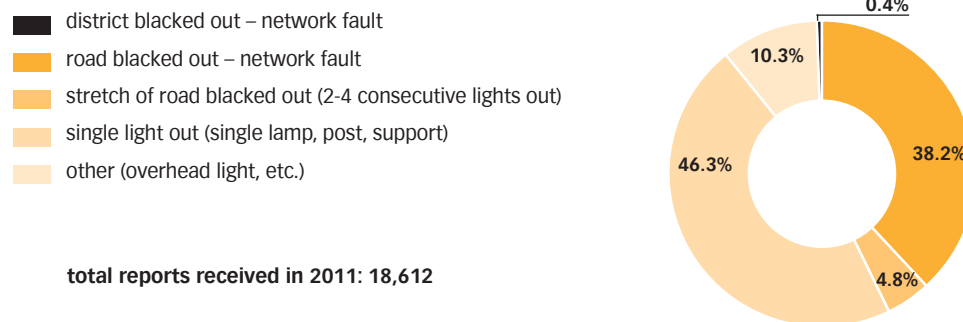
Chart No. 15 – TREND IN ACEA PERFORMANCE FOR REPAIRING PUBLIC LIGHTING FAULTS (2007-2011)



Fault reports registered in 2011 amounted to **18,612⁵⁵**, down 2% with respect to the 19,002 registered last year; **Acea took action in 96.8% of the cases**, with 18,010 “reports covered” as of 31 December 2011, while the remainder were completed in the first few months of 2012. The fault is detected by internal control systems (remote management, monitoring teams) and

reported by citizens and the Municipality of Rome, by means of the various contact channels available (call centre, web, fax or letter)⁵⁶. The **distribution** percentage of the reports by **type of fault**, illustrated in Chart No. 16, discloses the greater weight of the cases of individual lighting units out, a fault with the lowest impact on the quality of the service

Chart No. 16 – TYPES OF PUBLIC LIGHTING FAULT OUT OF TOTAL REPORTS RECEIVED (2011)



In the highly specialised **monumental artistic lighting** sector, Acea boasts consolidated experience. **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. 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 2011, in addition to maintenance work, the team dedicated to artistic lighting achieved numerous projects (see table No. 35). The measures of greatest significance include the modernisation of the lighting systems of the Pantheon fountain and Ponte Vittorio Emanuele II using LED technology for 172 lighting units, and the new lighting created for the Basilica di San Giovanni in Laterano (see related box and table No. 35),

⁵⁵ The figure excludes the requests and repeated reports on the same fault.

⁵⁶ See the section entitled Customer Care for details concerning the performances of call centres and for written complaints.

Table No. 35 – THE MAIN ARTISTIC MONUMENTAL LIGHTING MEASURES IN 2011

system modernisation	System modernisation concerned a total of 525 lighting units . The measures included: the Pantheon Fountains and Ponte Vittorio Emanuele II using LED technology for a total of 172 lighting units, Ponte Cavour with 58 lighting units, the Tiberina Island with 58 projectors, the side entrance, portico and loggia of Basilica di San Giovanni with 20 lighting devices, the Church of Sant'Andrea della Valle with 4 projectors and the monument dedicated to Anita Garibaldi at Gianicolo.
creation of new lighting units	39 projectors were installed in total: 20 for the creation of new lighting for the main facade, statues, entrance and portico of Basilica di San Giovanni in Laterano and 19 for the new lighting of the "Muro della Costituzione" - a wall on whose blocks part of the articles of the Constitution are engraved - this permanent artistic installation was created at Gianicolo on the 150th anniversary of the Unification of Italy.
ordinary and extraordinary maintenance	the maintenance of the artistic and monumental systems envisaged inspections and measures on 7,720 total lighting units . Specifically: 1,280 lighting units for the monuments of the Municipal Superintendence and the Coliseum; 2,563 lighting units in historic Villa's and parks; 1,460 lighting units for monumental fountains, 756 lighting units for Basilicas and Churches and 1,661 lighting units for bridges and quays on the River Tiber.

Box – LED technology for the Pantheon Fountain and Ponte Vittorio Emanuele II

Following studies, tests and inspections lasting more than two years, the project for the conversion of the current underwater lights from incandescent to LED is now a reality. The conclusive test was achieved successfully on the system which illuminates the Pantheon Fountain in Piazza della Rotonda. The modernisation of the system, along with the renewal of the power supply cables, saw the introduction of a power supply board and an LED lighting frame replacing the incandescent optical unit. What is so significant about this is that **maintaining the old ornamental bronze framework, it was possible to modify the lighting technology without altering the value of the lighting flux and the colour temperature**. 12 lighting units were affected by the change and the remote power supply was created keeping the current transformers, the watertight bypass boxes and the cables which power each individual lighting unit. Further experimentation was concluded also in the systems which illuminate the balustrades of the River Tiber bridges. The test was carried out successfully on the systems which light up Ponte Vittorio Emanuele II, involving 160 lighting units. Again in this case, the change was made from a neon-type lamp to one which uses LED technology, inserting a **LED bar** of the same length and with similar features in terms of lighting flux and 2,800 K colour degree, **directly into the glass tube which contained the neon**. The application of the new technology made it possible to achieve, overall, a **considerable improvement in performance** and the choice to intervene, on an experimental basis, on particular systems such as those which illuminate fountains and bridges **makes it possible to possibly limit over time maintenance measures**, thanks to the longevity of LED technology, leading to a consequent cutting of costs and inefficiencies and problems linked to reduced traffic conditions, in the case of bridges, or the involvement of other structures and businesses in the case of fountains.

Box – Illumination of the Basilica di San Giovanni

The artistic monumental lighting measures achieved in 2011 of particular importance included the project which concerned the **main facade and entrance, the entrance hall and portico** of the Basilica di San Giovanni in Laterano in Piazza di Porta San Giovanni. The fundamental elements on which the project-related study was based were: **the colour of the light**; the illumination aimed at maintaining **the balance between the elements** which make up the entrance facade and **the containment of the visual impact** of equipment and supports. So as to obtain symmetry in the "haloes" on the main facade and together create the conditions for being able to use a maximum power output of 250 W, beyond which the colour of the light is colder, two points were identified, corresponding to two of the curbstones present, for the installation of the supports necessary for mounting the projectors.

In order to illuminate the portico and the inside of the entrance area, equipment was installed close to the connecting base of the vaults, on a level with the overhanging perimeter cornice. The choice of the projectors tended towards equipment which due to morphology, size and colour (white) was the least invasive possible. A total of **20 projectors** were installed, with a total absorbed power of 3.2 kW.

The attention paid to the Basilica was not limited to just the main facade, but also concerned the side entrance in Piazza di San Giovanni (Vicariate side). In this case, a project was accomplished **for the modernisation** and extension of the lighting system of the facade within the inside of the portico, the loggia, together with the two bell towers and the steeples. Furthermore, the Obelisk placed in the centre of the square was also illuminated. A total of **20 lighting devices** were used to create the system, with powers ranging between 70W and 250W with a light colour temperature of 2800K (white light). Crowning the commitment undertaken by Acea, is the study - for the year under review - of a lighting project for the Apostolic Palace forming part of the church complex.

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 Italy, 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, equating to around 3.9 million individuals, including residents, floating population and commercial enterprises), **the traditional area of Group operations**. The main information⁵⁷, – 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 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 the operator and the ATO Authority, which, in the **Integrated Water Service Charter**⁵⁸, also envisages the definition of general and specific **quality standards**. Dealings with customers are also disciplined by the **Users' Regulations**, attached to the aforementioned Agreement, which establishes the technical, contractual and economic conditions under which the service operator must provide services and the procedures for settling disputes. In **January 2011** Acea Ato 2 achieved⁵⁹ **Quality Management System certification according to the UNI EN ISO 9001:2008 standard** for the **design, building, maintenance and restructuring of networks and systems** functional 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 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.

Before acquiring the service under management in the municipalities falling within the related ATO, Acea 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 2011, therefore as of **31 December 2011**, out of the 122 municipalities falling within ATO 2 - Central Lazio, the **integrated waste service** - aqueduct, sewers and treatment - was seen to in **73 municipalities** and in **another 21 municipalities** the SII was managed partially or other services were performed. 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 2011, preliminary work was continued for the acquisition of a portion of the service (drinking water) in another 20 municipalities.

Acea Ato 2 managed in total **1,337 km of drinking water transportation network, 9,497 km of drinking water distribution network** and **roughly 6,000 km of sewers** during the year, 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 development of the urban area of a city such as Rome⁶⁰ and taking action for the accomplishment of complex measures in the event of specific criticalities, each year performs modernisation or enhancement work on the plants, along with completion, extension or renovation work on pipes and networks.

Accurate analysis has continued for some years now on the structures of the water networks along with **loss detection**

⁵⁷ 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.

⁵⁸ 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.aceaato2.it.

⁵⁹ In fact, since December 2010, Acea Ato 2 has operated in compliance with Acea SpA's Quality Management System according to the UNI EN ISO 9001:2008 standard. After having carried out all the activities preparatory to independent certification of its management system, it achieved the objective in January 2011.

⁶⁰ 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.

and recovery activities, in collaboration with LaboratoRI, especially in the municipalities in the province of Rome where the infrastructures are older. During 2011, the main measures were carried out in the municipal areas of Riano, Monterotondo, Santa Marinella - Santa Severa area, Grottaferrata, Cerveteri and Subiaco (see also *Environmental issues - Research*). Activities also continued for the digitalisation of the sanitary water networks in ATO 2, with the input of data in the **GIS - Geographic Information System**⁶¹: as of 31 December 2011, **10,312 km of water mains** had been digitalised (transportation and distribution), along with **5,415 km of sewerage mains**.

The aqueduct service

The **main measures achieved in 2011** for the management and enhancement of the **aqueduct system** - water centres,

transportation pipes, networks, etc. - included the conclusion of work on the **new Ponte di Nona water centre** so as to equip the eastern area of the Municipality of Rome (Rocca Cencia, Prato Fiorito, Colle del Sole, Ponte di Nona, Colle Prenestino, Colle dei Monfortani, Borghesiana) with an adequate supply volume. The system, financed and constructed by Acea Ato 2 on the basis of the project of LaboratoRI, envisaged the creation of a raised reservoir with a capacity of around 550 cubic metres of water and a height of around 45 metres, a buried accumulation reservoir with a capacity of around 6,300 cubic metres, a pumping plant and the network of steel pipes, involving a total outlay of Euro 7.3 million. The **Santa Palomba water centre was also brought onto stream**, completed in 2010, serving the municipal area of Albano Laziale and, in the same area, the **new "Colli" water centre** was partially activated. Furthermore, mention is also made of the preparatory work for the construction of the **New Tiburtina Station** in order to enhance the supply in the area; and the

Box – The New Tiburtina Railway Station: Acea Ato 2's measures

During 2011, as part of the creation of the New Tiburtina Station and the associated works, Acea Ato 2 was called to intervene for the **moving and simultaneous reclamation work, of 6 large transportation pipes** (siphons) of the Marcio Aqueduct **which feeds the central and eastern area of Rome** with a total flow of around 2 mc/s. This involves the planning and construction of imposing infrastructures, building and hydraulic works consisting in tunnels passing over the railway line and the New Internal Circle Line for the city. During the work activities, the company organised all the measures necessary for containing any inconveniences for the people of the city due to the suspension of the water supply, also setting up alternative supply points on temporary water outlets.

extraordinary maintenance work on the Peschiera Sinistro aqueduct, due to serious and unexpected damage which occurred in March in the municipality of Sant'Angelo Romano and numerous other restructuring measures and replacement of equipment, motor pumps, etc

Structural work continued (improvements, construction of new connecting pipes and transportation ducts, excavation of wells, etc.) for the purpose of resolving 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 2011, steps were taken to carry out all the measures preparatory to the start-up of the **new Arcinazzo reservoir** and to achieve a number of ad hoc hydraulic works which made it possible to

more easily deal with the Summer period limiting inconveniences and supply shifts to a minimum.

Mention is also made of the extended campaign for **the installation of new meters or the replace of meters which do not function adequately** which in 2011 involved **more than 86,000 measures**.

The **main ordinary and extraordinary maintenance measures** on the transportation networks, systems and equipment functional for the supply of the drinking water service, carried out during the year by Acea Ato 2 in Rome and in the other municipalities under management, and the **checks carried out on the quality of the drinking water distributed** are shown in table No. 36.

⁶¹ 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.

Table No. 36 – MAIN MEASURES ON THE ACQUEDUCT SYSTEM AND DRINKING WATER CHECKS IN ATO 2 – CENTRAL LAZIO (Rome and other municipalities under management) (2011)

type of measures	
ordinary and extraordinary hydraulic maintenance on the transportation and feeder network (constructions, water centres, tunnels)	709 measures (including repairs and maintenance, of which 163 with recovery of the water resource)
ordinary maintenance of water network (measures with excavation work on pipes, off-takes, carriers, etc.)	17,906 measures (6,256 of which on the Rome network)
user maintenance (measures without excavation for users)	107,393 measures (62,447 of which for users in Rome) (*)
meter installation (new and replacements)	86,634 measures (11,740 new and 74,894 replacements), 54,366 of which in Rome (6,264 new and 48,102 replacements)
network expansion	14.5 km of water network expansion (of which 5.5 km in Rome)
network improvement	337 improvement measures on the network, for a total of 8 km of improved network
drinking water quality checks	8,745 samples taken and 337,529 analytical checks carried out on drinking water

(*) The figure was affected by the maintenance carried out in concurrence with the meter replacement programme.

The **continuity of the water supply** is a **quality parameter of the service** calculated on the basis of the number and duration of the water stoppages which are constantly monitored and

periodically communicated to the Area Authority: in 2011, 1,010 stoppages were necessary, 837 of which urgent (for pipe bursts) and 173 scheduled (see table No. 37).

Table No. 37 – NUMBER, TYPE AND DURATION OF WATER SUPPLY STOPPAGES (2009-2011)

	2009	2010	2011
urgent stoppages (No.)	541	920	837
scheduled stoppages (No.)	114	182	173
total stoppages (No.)	655	1,102	1,010
stoppages lasting > 24h (No.)	23	49	54

Another fundamental element for the service, carried out with the support of LaboratoRI, is the careful monitoring and control of the **quality of the water** distributed for drinking use as well as the water reintroduced into the natural environment (also see *Environmental issues, Water*, and the *Environmental accounts*). The analytical 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 for each municipality**, such as the volume of water distributed, the population served, the state of the networks

and infrastructures, the singular characteristics of the local sources, etc.; for example, the municipalities supplied with water which presents intrinsic quality problems carry out many more checks and in the presence of specific problems **extraordinary analysis campaigns** are carried out. During 2011, 8,745 samples were taken in ATO 2 – Central Lazio and **337,529 analytical checks** were carried out on drinking water, by both LaboratoRI and Acea Ato 2 directly.

The **quality of the spring water** withdrawn for supplying the **area of Rome and Fiumicino** (Acea's "traditional network") already reveals **excellent levels**, while in the **Castelli Romani** area the **volcanic nature of the terrain** causes the presence in the water tables of **mineral elements** such as fluorine, arsenic, vanadium in **amounts higher than envisaged by the law** and it is therefore indispensable to supply certain

municipalities on an exceptional basis until the **activities undertaken by Acea Ato 2** for overcoming these problems are completed.

Accordingly, during 2011 the bringing onto stream of the Santa Palomba water centre was completed with the Colli reservoir, **the Santa Maria delle Mole pumping station was constructed** and numerous measures were carried out for laying pipes aimed at guaranteeing a higher mixing of the water resource and rationalisation with regards to its handling. Furthermore, the **"Poggio delle Croci" treatment plant was tested**, and will make it possible to return to the legal parameters for the area of Tolfa, and the **"La Villa" pumping station was completed**, which will make a return to the legal parameters possible for the area of **Genzano di Roma**. Thanks

to these activities during the year, it was possible to return the parameters for arsenic and fluorine to the envisaged values in the area of Pavona of Albano Laziale and Pavona of Castel Gandolfo and the area of Fontana di Papa in the municipality of Ariccia; what is more, the bringing into stream of **the Palaggi drinking water treatment plant** made it possible to return to the parameters in the Landi area (Genzano di Roma).

The mixing of the water or the streamlining of the treatment plants however made it possible **in all the municipalities** where arsenic-laden water is distributed, to contain the **value of the parameter below the threshold of 20 micrograms/litre**. During the first few months of 2011, **Acea Ato 2**, in agreement with the Area Authority, the local bodies and the Local Health Authorities, **put together an information**

Box – An Information Campaign on the presence of arsenic in the municipalities of ATO 2

Towards the end of 2010, Acea Ato 2, the Technical Operations Secretariat of the Area Authority, the local authorities and the Local Health Authorities (LHA), **agreed on and defined the contents of an information campaign addressing citizens** in the municipal areas of Velletri, Albano Laziale, Castelgandolfo, Genzano, Ariccia, Lanuvio, Lariano, Trevignano Romano and Tolfa, where the presence of arsenic is detected in the water - due to the volcanic nature of the area - greater than the threshold of **10 micrograms/litre** envisaged by legislation.

The information campaign was carried out during the first few months of 2011 care of each of the municipalities concerned and **a warning notice was disclosed to the citizens regarding the possible uses of the water** in relation to the presence of arsenic and **indication of the nearest withdrawal points** (drinking water fountains and mobile water tanks) where it would be possible to obtain water compliant with Italian Legislative Decree No. 31/2001, or water with an arsenic content of less than 10 micrograms per litre. At the same time, Acea Ato 2 started up **an alternative supply service with bottled water for nursery schools and crèches**, indicated by the individual municipal authorities. During the year, measures in any event continued for the purpose of returning the arsenic levels within the legal limits; final completion of this work, involving an overall dedicated investment plan of around Euro 40 million, is expected by the end of 2012.

campaign addressing citizens in the municipalities concerned (see related box).

Even if the satisfactory quality of the drinking water distributed in Rome is certified not only by the analysis carried out by Acea but also by independent checks performed by third parties⁶², consumers are not always aware, therefore Acea continues to monitor the habits and undertake action to raise awareness (see also the section *Communication, events and solidarity*). During the annual customer satisfaction surveys, **Acea asked those interviewed** (both in Rome and in the other municipalities in ATO 2) **whether they usually drink tap water** and, if not, what the reasons were which made them believe it was better not to drink tap water. During 2011, around **53% of the sample of those interviewed in Rome declared that they regularly drank the water** which comes from the tap in their home, a decrease with respect to the 58% revealed last year; **in the provinces**, this percentage drops to **34%** (41%

in 2010). On the other hand, **the portion of those interviewed who declare that they never drink tap water is still high** - 26% in Rome and 48% in the provinces - and an important reason mentioned is the lack of confidence in hygiene aspects (for 24% in Rome and 44% in the provinces).

Rome features the presence of around **2,500 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**, 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 and representative artistic and monumental fountains in the city.

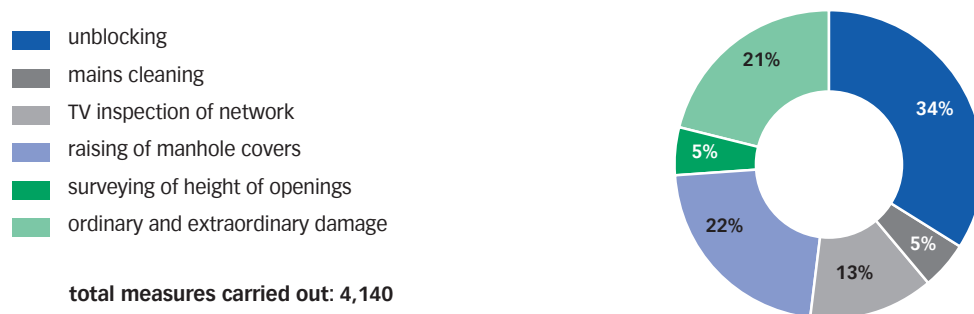
⁶² In general, such analysis is carried out by consumer associations such as Altroconsumo and Cittadinanzattiva and the results can be found on their websites.

The treatment and sewage service

The collection of waste water and its treatment before being reintroduced into the environment is part of the integrated water service. 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 2011 included **489 sewage raising plants** (169 of which in the Rome municipal area), 173 treatment plants (35 of which in the Rome municipal area) and 6,020 km of sewage networks (around 4,050 km of which managed for Rome). The **measures**, comprising **investigations, inspections, blockage removals and repairs** to the networks, carried out during 2011 in Rome and the other municipalities in ATO 2, numbered **6,517**, involving an average of **around 543 measures a month** (see chart No. 17 and table No. 38). Often measures on the network, besides the repair of the damage, envisage the reconnaissance on a larger section which makes it possible to

plan any redevelopment activities for the purpose of **improving the operating conditions**. Besides the management and maintenance activities, activities continued to **expand, integrate and enhance the sewage network** in the most recently acquired municipalities in ATO 2. Respecting the environment and so as to improve the service, the waste water disposal service was 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, were monitored. Thanks to the adoption of cutting-edge technology, Acea Ato 2’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 **95,000 in 2011**.

Chart No. 17 – TYPE OF MEASURES CARRIED OUT ON THE SEWAGE NETWORKS IN ATO 2 – CENTRAL LAZIO (Rome and municipalities managed) (2011)



NB: the figures represented in the chart do not take into account the 2,107 visual inspections carried out on the sewage networks.

Table No. 38 – MAIN MEASURES ON THE TREATMENT AND SEWERAGE SYSTEM AND WASTE WATER CHECKS IN ATO 2 – CENTRAL LAZIO (Rome and municipalities under management) (2011)

type of measures	
investigations, removal of blockages, cleaning, inspections, raising of manholes, inspection of level of water drain openings and damage repairs	6,517 measures on the sewage networks
inspections of the Rome sewers and measures on associated constructions (floodways, openings, etc.)	47 km of sewers inspected, 2,107 measures on sewers and constructions (Rome, right and left Tiber)
ordinary electromechanical maintenance on the raising plants	around 4,790 measures on the raising plants
electromechanical maintenance (improvement, ordinary, preventive, etc.) on treatment plants	around 5,260 measures on the treatment plants
waste water quality control	around 6,500 samples withdrawn and a total of 95,500 analytical checks carried out on the waste water

The tariffs

The electricity tariff

The process for the deregulation of the electricity sector, launched in Italy since 2007, thanks to which **each consumer can freely decide which supplier to purchase electricity from and under what conditions**, has facilitated the development of a competitive system aimed at creating beneficial conditions in energy services and the prices offered to the consumers. Since then, two segments have characterised the market: the so-called **“free market”**, which can be accessed by any consumer who decides to directly handle the supply relationship with the chosen supplier, both in terms of the economic and operating aspects, and the so-called **“protected service”**, with which consumers remain if they decide to avail of the electricity service under contractual conditions - including tariffs - established by the Electricity and Gas Authority (AEEG), the national regulation body for the market and consumer protection.

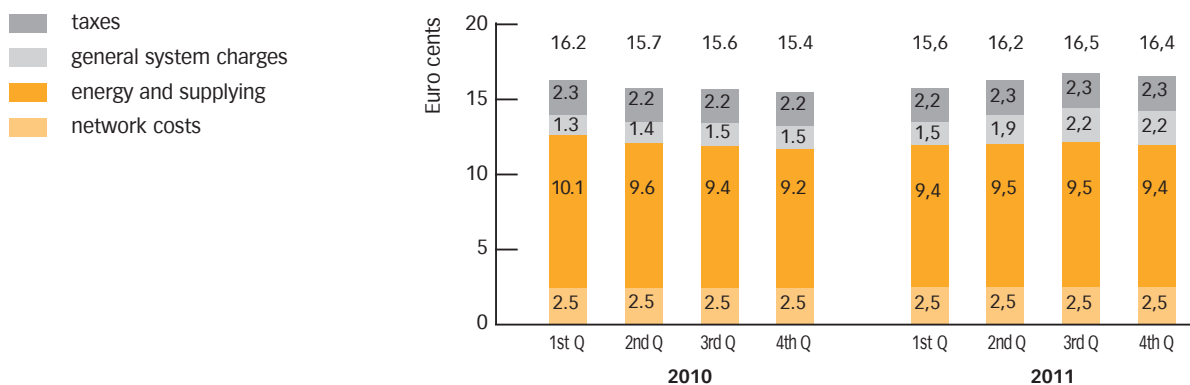
Within the competitive sphere outlined, it becomes essential to adequately inform the consumers of commercial offers, making instruments available to them aimed at helping them make informed choices. These include the **comparison chart** - which the sales companies are obliged to provide to the customers who receive a commercial proposal on the free market - that permits the consumer to compare the annual costs proposed

by the commercial offer, for the various consumption profiles, and the corresponding economic conditions for the protected service established by the AEEG, highlighting the possible related saving or greater cost.

The **protected service**, which to-date, on the basis of the number of customers and volumes sold, is still the reference service for **Italian household customers** (individuals and families) reported **an increase in the overall price** of electricity during 2011 when compared with 2010. With regard to standard consumption (equal to 2,700 kWh/year, with a power supply of 3 kW), the **cost per kWh** rose from **15.8 Euro cents** last year (equal to around Euro 426 per annum) to **16.2 Euro cents** (equal to roughly Euro 437 euro per annum)⁶⁴. In the breakdown of the cost components, the item relating to **general system charges** stands out, fixed by law to cover aspects such as, for example, the subsidies for renewable sources, special tariff regimes, nuclear decommissioning charges and the electricity social bonus.

As known, from **1st July 2010**, the AEEG established the automatic application of **dual phase prices for all the customers of the protected service** who have a digital meter capable of reading the consumption in different time brackets. This system differentiates the costs on the basis of the moment of use of the electricity during the day: more contained as from

Chart No. 18 – ELECTRICITY PRICE TREND FOR A TYPICAL HOUSEHOLD CONSUMER (in Euro cents/kWh) (2010-2011)



Source: Electricity and Gas Authority website (www.autorità.energia.it) – statistical data.

⁶³ 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.

⁶⁴ Average values in the four quarters of 2010 and 2011.

the evening, on public holidays or early in the morning, and higher in the central hours in working days, when the request for energy is higher. In this way it is hoped that each user reshapes the consumption profiles in a more economically convenient and sustainable manner, favouring a more aware and efficient use of energy, with **positive effects for energy saving** both individual and general, and therefore the environment, and for the management of the electricity system in its entirety.

During 2011, between customers served under the protected service⁶⁵ and household customers on the free market who have activated the dual phase offer⁶⁶, total Acea Energia customers billed under the dual phase system came to more than 930,000 and represented around **68% of consumers**.

Sales activities of Acea Energia on the free market were shaped to satisfy the specific needs of the various types of customers,

from households to large industrial clients, and to raise the service level offered. On the one hand, in fact, customers have by now acquired greater awareness and expertise, accruing 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 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, is decisive. With a view to this, during 2011 Acea Energia structured the **commercial proposals** adapting the available options to the evolution of customers' needs (see related box).

Promotional activities developed by Acea Energia in 2011 also included the agreement entered into with **Rome**

Box – The commercial proposals for electricity in 2011

During 2011, Acea Energia's commercial proposals to the **mass market segment** - residential customers, commercial activities and small and medium-sized businesses - were divided up with a view to rationalisation and organic unity. The new products, all with the dual fuel option (joint supply of energy and gas) were promoted towards the end of the year by an important communications campaign:

- **Acea Unica**: a product focused on the stability of the price, the freedom to choose the hours when to concentrate consumption and a saving in gas costs. A loyalty bonus is envisaged for customers who respect the payment deadlines, consisting in a quantity of energy consumption free, deducted directly on the bill each 12 months of supply;
- **Acea Rapida (only for residential customers)**: this makes it possible to handle the energy supply directly from one's computer, without giving up the safety of a frozen price and the possibility of saving on gas costs;
- **Acea Viva**: for those who wish to contribute towards the protection of the environment (the energy consumed is entirely CO-FER certified), consume electricity in the evening, at the weekends and on public holidays and wish to ensure a saving on gas costs;
- **Acea Dinamica (only for professionals and businesses)**: a product designed for professionals, small businesses and commercial activities who wish to link electricity costs to the energy market trend, without giving up the possibility of saving on gas costs.

At the same time as the launch of the new products, **Acea Energia's** website was overhauled, with regard to the graphics, navigation and usability, enhancing the sales channel functions, efficient and level-related for the mass market segment.

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 certified energy**; the system, which took over in 2011 from the previous RECS system, is able to accurately ensure the effective origin of the energy from plants fuelled by renewable sources.

Confcommercio so as to offer all the tertiary businesses who are associates of this organisation the possibility of accessing electricity and gas supply services under facilitated conditions. Thanks to this agreement, a preferential relationship was established between Acea Energia and the client companies and the fruition of fixed tariffs on the free market was proposed, making it possible to freeze the price of energy for 12 months, thereby offering protection from market fluctuations.

The aspects underlying this agreement and agreed on by Acea Energia and 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.

⁶⁵ Around 918,200, equal to 80% of around 1,140,00 total customers of Acea Energia served under the protected service, in consideration of the progressive activation of remote reading of digital meters.

⁶⁶ Around 13,200 out of the 218,105 total free market customers of Acea Energia.

The water service tariff

Water tariffs are established on the basis of the “standardised method”⁶⁷ by the **Authorities for the Optimum Area of Operation**⁶⁸ (AATO) responsible locally. These Authorities are like public bodies made up of the Local Entities in the area and perform policy-making, regulation, planning and control functions for the entire water cycle.

During 2011, a number of episodes occurred, significant due to the impacts which might come about on the structure of the costs for the service, as illustrated concisely below.

The main event was the **outcome of the referendum** concerning the June consultations which among other aspects dealt with two issues inherent to the **regulation of the water system**. Around 57% of the electoral body took part, around 95% of which voting for abrogation, in other words the cancellation of Article 154 of Italian Legislative Decree No. 152/2006 (the so-called Environmental Code) in the section which envisages “**the adequate remuneration of the invested capital**”. It should be clarified that the outcome of the referendum does not challenge the principles, also established in the same Article 154, of the total coverage of the costs and investments guaranteed by the tariff, as maintained by EU legislation regarding water (Outline Directive 200/60/CE), in which it is expressly confirmed among the mandatory principles that the member nations must achieve the recovery of investment costs for the service (Article 9.1).

Another legislative measure - Italian Law No. 214/2011 - abolished the **National Commission for Supervision of Water Resources** (Co.N.Vi.Ri.) and the **National Agency for regulation and supervision regarding water**, which had not yet been activated, **transferring the related functions** to the **Electricity and Gas Authority** (AEEG). The specific regulation and control responsibilities will have to be established by the Prime Minister’s Decree by 5 March 2012.

With regard to tariff-related aspects in the Optimum Areas of Operations in which Acea Group companies operate, during 2011 the following occurred: the tariff review process for **Publiacqua** was completed (for the three-year period 2007/2009), as well as for **Acque and Acquedotto del Fiora** (for the three-year period 2008/2010), and the ordinary review was launched for **Acea Ato 2** for the period 2008/2011. In detail, with regard to ATO 2 – Central Lazio, managed by Acea Ato 2, the **consolidated area tariff** was introduced in all the municipalities falling within the same, accompanied by a reshaping of the consumer categories aimed at providing incentive for the sustainable use of the resource; the minimum employed for household uses was eliminated. **Economic concessions were also envisaged** for family units experiencing hardship and **discount and instalment payment systems** for the first period of application of the new tariff.

The **effective average tariffs** applied during 2011 by the leading Acea Group water companies are shown in table No. 39.

Table No. 39 – AVERAGE 2011 WATER TARIFFS APPLIED BY THE ACEA GROUP COMPANIES (2011)

company	Euro/m ³
Lazio/Campania	
Acea Ato 2 SpA – Central Lazio	1.05
Acea Ato 5 SpA – Southern Lazio	1.31
Gori SpA – Sarnese Vesuviano	1.32
Toscana/Umbria	
Acque SpA – Basso Valdarno	2.04
Publiacqua SpA – Medio Valdarno	2.09
Umbra Acque SpA – Umbria	1.77
Acquedotto del Fiora – Ombrone	1.98

Box – Tariff disputes

Under sentence 5788/2011, the Council of State upheld the Conviri appeal against AATO 3 - Medio Valdarno and **Publiacqua**, forcing the Area Authority to recover around Euro 6 million illegally acknowledged to the management company by way of settlement.

The Lazio TAR (regional administrative court) upheld the appeal presented by **Acea Ato 5** against the local Area Authority, ordering the latter to establish the tariff for the 2006/2009 period, the final tariff for 2010 and conclude the review of the Area scheduling for 2011/2013; faced with the inactivity of the Area Authority, in October 2011 the Court took steps to appoint an *ad acta* Commissioner.

In conclusion, Federutility and Anfida, trade association for local public service companies and integrated water service management companies, presented an appeal to the Lazio TAR against the Interministerial Committee for Economic Planning (CIPE) for the failure to adopt the tariff adjustment for 2010 and 2011; also a number of minor water companies in the Acea Group have joined in with this appeal: Sogea, GEAL and Gesesa, active respectively in the areas of Rieti, Lucca and Benevento.

⁶⁷ Italian Ministerial Decree dated 1 August 1996 “Standardised method for defining the cost components and determining the related tariff”. This mechanism aims to ensure the coverage of the operating costs, the amortisation and depreciation, and the remuneration of the invested capital in observance of the principle of the economic-financial self-maintenance of the sector rendered.

⁶⁸ The abolition of the Area Authorities envisaged by means of Italian law No. 42/2010 and already subject to deferral, first of all until 31 March 2011 and then 31 December 2011, under Italian Decree Law No. 216/2011 (so-called Mille proroghe) was further postponed until to December 31, 2012.

Customer care

Responsibility for customer care is directly entrusted to the operating companies which handle every aspect of the relationship with their customers; furthermore, so as to maintain an integrated view of the activities a Customer Care Unit is operative within the holding company, dedicated to monitoring the performances⁶⁹.

These monitoring activities envisage the construction, analysis and reporting of the **quantitative and qualitative indicators suitable to measure the quality of the service provided** care of 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 developing the objectives achieved by Acea8cento operators.

In 2011, the activities of the **work group** established and co-

ordinated by Acea SpA's CEO with support from the Customer Care Unit, continued at centralised level, **dedicated to mapping the problems most frequently reported by customers** and supporting the operating companies to identify appropriate corrective action with the aim of responding more effectively to customers' expectations.

Acea also saw to the project aimed at the **"promotion of informed customers and active consumers"** together with the main Consumer Organisations (see related box).

Customers can contact Acea and the Group companies via an **exchange** which puts them through to corporate offices and sites, **commercial free-phone numbers, free-phone numbers for reporting faults**, the **counters** (physical and online), via **letter, fax** or **corporate websites** (www.acea.it, www.aceaenergia.it and www.aceaato2.it). "Key customers" (e.g. companies and institutions) have specific departments dedicated to their matters.

Box – Educating informed citizens

Acea decided to economically and operatively support the project *Educating informed citizens – for the promotion of informed customers and active consumers*, furthered by the Lazio regional delegations of the consumer associations Adiconsum, Adoc, Federconsumatori and Lega Consumatori. The venture envisaged the organisation, between November and December 2011, of a number of training and educational encounters addressing citizens on the most significant aspects for users of the electricity service, with particular regard to the developments which are emerging on energy markets consequent to deregulation of the sector. Accordingly, the Associations were able to clarify doubts and help citizens to more fully comprehend the opportunities to be seized and the caution to be adopted both with regard to the protected market and the free energy market. The encounters were held at the headquarter of the neighbourhood committees and community centres, with the participation of around 400 individuals, and made it possible for the company to receive important feedback on its activities, by means of the opinion disclosed by the participants, and to pick up on suggestions and expectations for the improvement of the same.

Box – 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).

⁶⁹ 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.

⁷⁰ Since April 2011, following the winding up of the JV with GdF Suez Energia Italia SpA, the company tasked with selling electricity, wholly-owned by Acea, is Acea Energia SpA.

For the handling of one or more remote channels: telephone, fax, webform, e-mail, the main Group operating companies avail themselves of **Acea8cento SpA**, the contact centre set up in 2008 so as to guarantee quality, promptness and uniformity when solving customer problems. The channels handled by the contact centre are essentially, but not limited to⁷¹, commercial and feature the highest level of operations: as a point of fact, the customer is directed to the physical counter only for particularly complex procedures.

Furthermore, Acea8cento **identifies the possible areas of improvement** with regard to the “remote” management of the customers and **implements specific projects:** in 2011, for example, the final structuring of the phone tree was put together for the number dedicated to the gas market; with regard to Acea Energia customers, a “black number” has been activated which provides information on complaints sent in written form; with regard to Acea Ato 2, classification of the requests and written complaints took place.

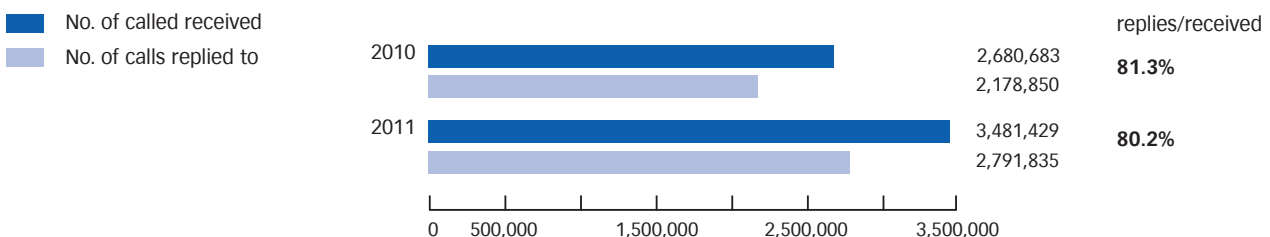
With regard to the channels dedicated to the sale of electricity, Acea Energia has **enhanced the free-phone number** dedicated to sales proposals which, as from November 2011, not only provides information but also **permits** the customer concerned **to directly subscribe to the chosen proposal.**

Great attention has been paid, during the year, to the containment of the inevitable impacts generated, in the start up phase, **by the introduction of the new information system** for the handling of electricity sales activities for protected customers. The **Programma Volta**, launched in 2008 and which achieved completion in 2011, had in fact set itself the objective of fulfilling the complete functional separation between the electricity distribution and sales activities, envisaged by sector legislation, handling the evolution of the company information systems so that they are in line with the complexity of the

business generated by the dynamics of the deregulated markets and by the related regulation. The change led, during the Summer months, to the reshaping of the billing periods and the temporary suspension of certain activities generally carried out by the front office (telephone and counter), such as, for example, billing adjustments. Acea Energia has put together measures suitable for containing the repercussions on the service for customers: a **targeted communications campaign** (a letter as part of the bill, press releases, website), the **strengthening of the counter operators** and remote counter operators and the adoption of tools for the registration outside the system of customer requests in the suspension period. Under the same circumstances, activities for payment requests and disconnection due to arrears have been interrupted.

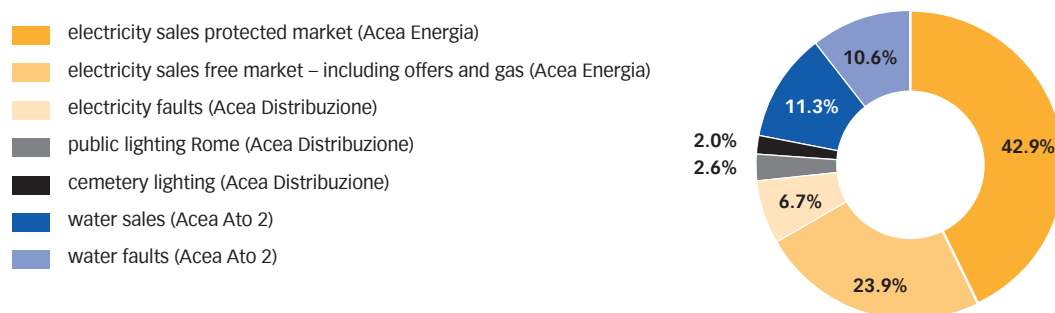
The **Acea free-phone numbers** during 2011 received a total of around **3.5 million calls, up by 30%** with respect to the roughly 2.7 million calls received in 2010; this change essentially depends on the increase in calls to the commercial free-phone number dedicated to the free market, including the gas service, and on the requests for information on the commercial offers relating to this segment. The percentage-related distribution of the volumes of calls received in 2011, confirms the greater importance of the commercial free-phone numbers for the electricity sales service, which cumulatively absorb around 67% of total calls, **disclosing a doubling, in percentage terms, of the calls received for the free market segment** (23.9% compared with 11.8% in 2010), corresponding what is more to a doubling of number of Acea customers for this market segment; a positive reduction is also revealed in the percentage attributable to free-phone numbers for reporting electricity faults, from 10% last year to 6.7% (see charts No. 19 and 20).

Chart No. 19 – TOTAL TELEPHONE TRAFFIC OF ACEA FREE-PHONE NUMBERS (2010-2011)



⁷¹ Acea8cento in fact handles also the numbers for reporting faults for Acea Ato 5 and for the cemetery lighting service of Acea Distribuzione.

Chart No. 20 – PERCENTAGE-RELATED DISTRIBUTION OF THE TELEPHONE TRAFFIC RECEIVED BY ACEA FREE-PHONE NUMBERS IN 2011



The Electricity and Gas Authority intervenes in the assessment of the call centres of the electricity and gas suppliers and, on the basis of global scores⁷² (TQI) assigned by means of six-monthly surveys to each operator, draws up a classification making the same public⁷³. The Authority's classification discloses, between the second half of 2010 and the first half of 2011⁷⁴, the recovery of two places (from 22nd to 20th) for the **Acea Energia call centre service**. Irrespective of the classification position, one can see a **decrease** in the total quality index (TQI) from **66.9 to 63.9** due to the essential reduction in the score relating to the customer satisfaction survey (CSS) which fell from 92.2 to 83.8. The deterioration was affected by the phase of intense change which the Group went through in 2011: the expansion of the customer base and the completed separation of the sales and distribution activities contributed towards a rise in telephone contact⁷⁵. Acea has had to deal with the growing need for contact by means of greater recourse to external support and has

envisaged enhancing Acea8cento in 2012. 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. 40. The service levels (% of replies to calls received) revealed, when compared to 2010, a significant improvement for electricity services and a deterioration for water services, especially following the significant rise in in-coming calls. The performance of the water sales free-phone number was influenced during the year by certain important events: the application of the single tariff, the introduction of the special tariff for customers in determinate conditions of economic hardship, the amendment of the billing plan (from six-monthly to quarterly). With regard to the water fault reporting service, by contrast emphasise is made of the intense turnover of the operators which led to the need to dedicate various training sessions.

Table No. 40 - THE MAIN PERFORMANCE INDICATORS OF THE ACEA FREE-PHONE NUMBERS (2010-2011)

performance indicators	electricity faults (*)		public lighting (*)		cemetery lighting		water sales		water faults (*)	
	Acea Distribuzione	Acea Distribuzione	Acea Distribuzione	Acea Distribuzione	Acea Distribuzione	Acea Distribuzione	Acea Ato 2	Acea Ato 2	Acea Distribuzione	Acea Ato 2
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
total No. of calls received	289,938	233,859	110,378	90,580	65,412	69,891	273,569	392,601	293,796	370,632
total No. of replies	214,822	213,961	79,571	84,714	47,574	59,149	217,917	271,215	242,038	285,274
% of replies out of calls received	74.1%	92%	72.1%	94%	72.7%	85%	79.7%	69%	82.4%	77%
average waiting time before reply (min. seconds)	3'25"	1'31"	3'07"	1'10"	1'54"	1'35"	1'37"	2'10"	3'03"	4'06"
average conversation time (min. seconds)	1'48"	1'39"	1'32"	1'25"	2'28"	3'14"	3'46"	3'45"	2'24"	2'30"

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

⁷² 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.

⁷³ 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 2011, is available on the website of the Electricity and Gas Authority (www.autorità.energia.it).

⁷⁴ At the time of drawing up the 2011 Sustainability Report, the results of survey for the second half of the year, carried out by the AEEG, had not yet been made known.

⁷⁵ The increase in contact also concerned the water area, contributing towards steering Group customer care policies towards outsourcing.

In order to contact the company remotely, customers can also use the **websites** of the various service companies (www.aceaenergia.it reported 762,000 visits in 2011 and www.aceaato2.it 347,060 visits), directly or transiting via the website of the holding company (www.acea.it). The websites of the operating companies are equipped with on-line counters, which make it possible to carry out contractual and commercial transactions, request information and check billing and payments. In detail, the **Acea Energia website was completely overhauled in September 2011** with the prospect of progressively increasing the self-service area so as to even include on-line payment.

The **Acea Ato 2 online counter** as of 31 December 2011, received around **39,257 registrations, up 49%** with respect to the **26,285** reported as of 31 December 2010. At the end of November, the **Acea Ato 2 website** was equipped with a **virtual assistant** to guide customers when using the client area; furthermore, the company took steps to disclose, via the web, all the **information relating to the introduction of the single tariff** (see section *The tariffs*). By the end of April 2012, additional services of the on-line counter will be activated, permitting customers to carry out, transfer, cancel, take over contracts, request estimates, and make payments.

The **public hall** at the **Acea central headquarters** in Piazzale Ostiense, Rome, is the home of the **“physical” counters for electricity, gas and water service** customers. They can also be found at the satellite headquarters in Ostia Lido. Acea Ato 2 also manages **12 counters** located **throughout the province of Rome** and a mobile office operative every working day.

Acea Energia has launched the planning of a further counter which will be opened **care of the headquarters of the IV Municipal area**; these premises were chosen due to the logistic location, suitable for providing the service to customers of the north-east sector of the city, the extreme opposite direction to the Piazzale Ostiense offices, suitable for the service for customers in the south-east sector. **Overall**, during the year the **public hall at central headquarters saw 198,983 customers pass through**, a number up by 21% with respect to the 2010 figures, the majority of which visited the counter for the protected service of the electricity sales company. There was also an increase in visits to the counter dedicated to the free market deriving, not only from the entire year of operations, but also from the increase in the customer base and the essential debut in the gas sector. With respect to last year, the number of customers who visited the water counter also increased following the innovations already mentioned with regard to telephone contact: the figure is also up for the **peripheral counters** where visits passed from around 140,000 in 2010 to **roughly 160,000 in 2011**.

Service levels (expressed by the ratio between customers served and numbers issued) for the counters at central headquarters **turned out to be very high**, while the increase in waiting times should be placed in relation to the rise in contacts and, with regard to the protected electricity service, the start-up of the new management system introduced in August, which has much longer average transaction times, but also the advantage of handling greater and more detailed commercial information.

Table No. 41 – COUNTER PERFORMANCE AT CENTRAL HEADQUARTERS (2009-2011)

	Acea Energia electricity service (protected market)			Acea Energia electricity service (free market)		water service Acea Ato 2		
	2009	2010	2011	2010	2011	2009	2010	2011
numbers issued (No.)	115,876	128,180	129,592	10,824	37,994	31,464	24,960	31,397
customers served (No.)	113,890	125,740	125,672	10,419	36,732	30,824	24,414	30,734
level of service	98%	98%	97%	96%	97%	98%	98%	98%
average waiting time (mins.)	18	21	34	38	58	26	26	35
average service time (mins.)	10	9	10	13	10	14	14	14

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 Electricity and Gas 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. 24-27).

Responses to **written complaints/requests** which concern 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 2011, **1,264 complaints were received**, a figure up slightly with respect to the 1,207 complaints in 2010. The company had replied to 1,212 complaints by 31 December, 95.9% of the total, and roughly 96.2% of the replies were given within 30 days; the remainder were dealt with in the first few months of 2012.

With regard to the water service, Acea Ato 2 received a **total of 7,193 complaints/requests** from the various municipalities managed (Rome and Province), (+29% with respect to the 5,557 registered last year), of which 6,870, or **95.5%**, were dealt with. The Customer Relationship Management (CRM) system was further implemented in 2011, for the management and monitoring of phone, counter or written requests from customers. 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..

Both for the water service - care of the companies Acea Ato 2 and Acea Ato 5 – and for the **electricity service** – Acea Energia – the joint **settlement procedure** was also operative in 2011, an instrument for the out-of-court settlement of commercial disputes between the customer and the company (see the section Institutions and the Company), while with regard to the legal disputes outstanding during the year between Acea and customers, reference should be made to the related box.

Protecting the customers, **an agreement was entered into between Acea Energia and 16 Consumer Associations** which towards the end of 2011 led to the establishment of a **permanent Monitoring Centre** aimed at ensuring the maximum protection of the customers and keeping the phenomenon of **improper commercial practices** under control (see related box).

Box – Acea Energia and the Consumer Associations: a permanent Observatory Centre

In November 2011, Acea Energia entered into an agreement with 16 Consumer Associations, members of the CNCU (National Consumer and Users Board) so as to **launch a permanent and joint Observatory Centre** which, with agreed frequency, monitors and discloses the evolution of the emerging problems and the responses adopted by the company relating to promotional and sales activities on the free energy market, **paying particular attention to any "improper commercial practices"**, sanctioned by the Consumer Code, adopted by the Company's Business Partners, or by external parties appointed to advertise and promote Acea Energia's sales proposals.

For such purposes, the company has shared the **adoption of measures** with the Associations, measures which take action on the recruitment, selection and training processes, the handling of the relationship with potential customers, control of the sales channels and fines for sales agents, **aimed at ensuring an enhanced protection of the customers**. Of the measures adopted, those relating to the quality call are of particular importance - the sales company, before activating a new contract, undertakes to call the potential customer to check their effective interest and their full understanding of the sales proposal presented by the agent - , the restriction of directly drawing up contracts with **customers over the age of 70** and, in conclusion, the extension beyond the legal deadlines envisaged for the **right to change one's mind**.

Box – Disputes with customers

Legal disputes furthered by customers with respect to the Acea Group generally concern complaints, which subsequently take on the form of summons, relating to the contractual relationship, mainly pertaining to tariff mechanisms and rebates.

The overall amount of disputes between the company and customers comes to around 300 cases. Of these, roughly 130 concern 2011 time-wise, of which **44** have been opened and closed during the year, indicating a new sensitivity of the Group companies with regard to the settlement of the controversy.

The majority of the disputes, around 290, have an average economic value of around **Euro 1,700**, the others - relating to action for the compensation of damages for events associated with the supply, such as the failure or delayed connection to the utility for commercial activities - by contrast revealed higher values.

Communication, events and solidarity

Communication

The **External Affairs and Communication** Division of the holding company sees to the various forms of communication used by Acea to interact with the stakeholders and in general the social context which the company activities take place in. Acea is an active presence in the area and intervenes both at the time of conventions and manifestations linked to the core business activities and contributing to the accomplishment of **significant events** regarding environmental, cultural and sporting sphere, as well as supporting solidarity initiatives; **it proposes advertising and awareness-raising campaigns** addressing the body of citizens, **sees to relations with the press bodies**, furthers external and internal communication via the company **website** - www.acea.it – as well as via the **house organ AceaMagazine** and the **weekly newsletter**, the two publications dedicated to looking in greater depth into topics of interest and divulging news which concerns the Group. The **magazine** continued publications in 2011 with subjects

dedicated to the business sectors, supplemented and enriched by authoritative articles and interviews. At the beginning of the year, the house organ presented the **new Acea logo** (see dedicated box), the business plan and the new macro-structure of the holding company. In March, a special edition was dedicated to the XVII Rome Marathon, sponsored by the Group, twenty thousand editions of which were printed for the occasion. The publication was distributed before the event during the three days of the Marathon Village, the manifestation which hosted 80 thousand individuals, athletes and visitors alike, and where Acea presented “**weGreen. Energia al naturale**”, with a stand dedicated to the “green” product launched on the market by Acea Energia”. The **newsletter**, issued weekly, is a brief disclosure on dates and innovative aspects concerning energy and water issues and the environmental sector, as well as in-depth looks at specific events, and is sent via mail to all the employees and to an external select mailing list, containing over **41,500** names.

Box – A new logo for the Acea of the future

Three squares of different sizes in the classic colours of the company: blue, yellow and green to indicate the macro-areas of activity. This is the new Acea logo, created by the Inarea agency: a renewed visual identity which aims to emphasise the transformation of the industrial Group. Ten years on from the creation of the trademark by way of digression, when the municipalised company for electricity and water of the Municipality of Rome - following stock market listing - deemed it necessary to achieve a complex rebranding, in 2011 the corporate identity image proposed by the new logo emphasises the continual evolution, proposing an **entity capable of generating numerous combinations**. The idea is to overcome the fixed and static nature of the traditional brands, activating the **possibility of reinterpreting and interacting with outside**, involving personalisation and diversification, according to an own method of the “**brand 2.0**”. The various services managed by the Group and the interaction, both institutional or informal, is correctly represented in the new brand. The central nature of the beneficiary of any message is rewarded, thanks to the efficacy of the “**profiling**”.

The **Acea website**⁷⁶ – www.acea.it –, in the Italian and English versions, conveys the institutional and financial communication of the Group and **makes the contents available and updates them with the aim of satisfying the need for disclosure of the various stakeholders**. The website is divided up into sections, where it is possible to find information on corporate governance and the value codes; 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 two areas present on the home page dedicated to

news - daily updates with news on company activities and broader topics on energy, water and the environment - and to events furthered by the Group companies.

The section dedicated to communication activities is particularly rich in contents, presenting the main initiatives which the company is involved in, the daily press review, the magazine, the advertising campaigns, a “close up look” section and an audio/video area. The section dedicated to sustainability contains the PDF versions of the Group sustainability report; specific sections have been drawn up for the suppliers and whomever is interested in working for the company. It is also

⁷⁶ See the box concerning the structure of the company website in the section *Communicating sustainability; method notes*.

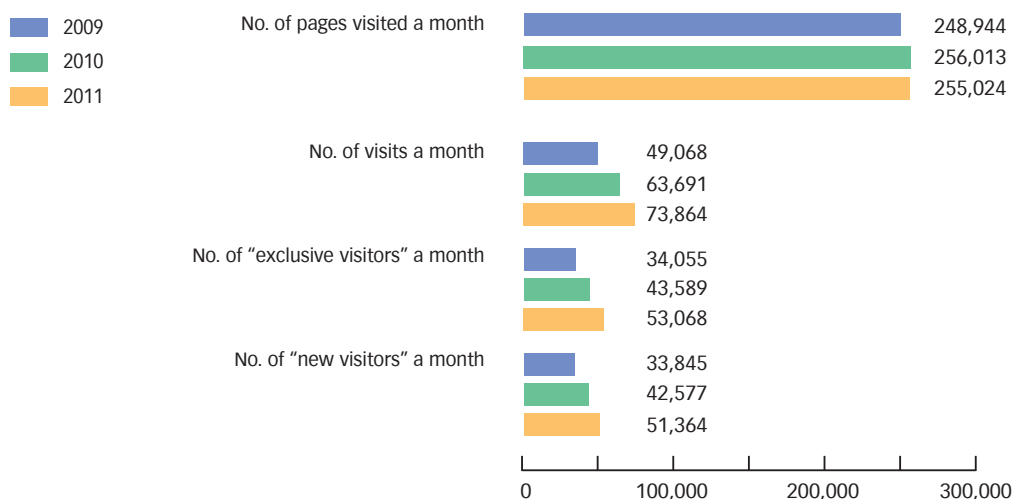
possible to access the websites of the companies involved in providing the services from the institutional website.

During 2011, in line with the last two years sites have been created which host the online and **interactive versions** of the *Group Consolidated Financial Statements* and *Sustainability Report* (referring to the 2010 accounting period), in Italian and English.

During 2011, the **company website** received **886,375 visits in total, 16% more** than the 764,298 in 2010, with a **monthly average of over 73,800** visits, around 70% of which were “new visitors”. The pages visited the most, besides the home page (21.27%), were access to the Energy section (8.11%), the Acea SpA section (4.9%), the Water section (4%) and the

Communications area (3.8%). Between 2010 and 2011, the majority of the access indicators illustrated in chart No. 21 rose. There was a much more pronounced **increase in visits to the Acea Energia website** - www.aceaenergia.it - the company which sees to the sale of electricity and gas, which reported 762,000 visits, **+29.8%** with respect to the 587,119 visits in 2010, **to the Acea Ato 2 website** - www.aceaato2.it - the company which manages the water service in ATO 2 – Central Lazio, with 347,060 visits, **+42%** with respect to the 244,702 in 2010, and **to the Acea Ato 5 website** - www.aceaato5.it - a company operating in ATO 5 - Southern Lazio - Frosinone, with 106,419 visits, **+41.4%** with respect to the 75,277 visits in 2010. The **Press Office** Unit, within the External Affairs and Communications Division of the holding company, oversees the

Chart No. 21 – MAIN INDICATORS ON VISITS TO THE ACEA WEBSITE (monthly averages 2009-2011)



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**. A specific press review on the water sector and a selection from the main review are divulged on the **company website**, in a specific section, enhanced by television and radio services on the company, guaranteeing **external parties** accurate and up-to-date information.

The Press Office **responds to the reports** relating to services handled by the Group, conveyed by the newspapers. 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 reach the Press Office via e-mail, fax and direct telephone calls and receive prompt

responses. During the year, particular steps were taken to deal with the phenomenon of improper commercial practices which have developed around Acea Energia's commercial proposals, ensuring adequate and correct information and emphasising the precautionary measures adopted by the company to protect citizens, going as far as to establish a permanent, joint Acea - Consumer Associations Monitoring Centre (see section on Customer care)

Once again in 2011, Acea appointed a company from outside with the task of creating a **"Reputational Monitoring Centre"**, with the constant monitoring of the assessment made with regard to the company by press bodies and public opinion in the media - daily press and periodicals, websites, blogs, forums. etc. - whose results, processed month by month, have been brought to the attention of company management.

The **most important corporate events** are appropriately highlighted via the disclosure of **Press releases** and, in the specific 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, both as sponsor and with the setting up of exhibition areas or the support of its speakers. During 2011, for example, various initiatives were highlighted linked to the development of network systems for **electric mobility**, which saw the company as a leading player (see related box), **the inauguration of the largest photovoltaic park in the city**, at Commerciti, **the presentation of the Ponte di Nona water centre in Rome**, **the launch of the 2010-2020 Light Plan**

activities, the artistic monumental illumination of the Basilica di S. Giovanni in Laterano, and Acea participation in leading environmental sustainability events was also highlighted, such as **Ecopolis**, **Earth Day**, the **Energy Festival** and **MoTechEco**, the event dedicated to new technologies for sustainable mobility. Acea also took part and was involved in numerous **manifestations to celebrate the 150 years of the Unification of Italy** and the Press Office worked to communicate the many initiatives undertaken in this connections such as the artistic illumination of the facade of the Vittoriano, the statute of Giuseppe Garibaldi and the use of illuminations to represent the Italian flag along the main roads of Rome.

Initiatives continued for raising the awareness of customers and the people of the city with regard to the value of the services provided, by means of the repositioning of the 2011 updated versions of the: "Lighting Charter", which illustrates, in the small format of an ID card, the plant engineering figures and

Box – Acea and Enel together: network systems for electric mobility

In February 2011, Acea and Enel signed a memorandum of understanding for the joint development of the recharging infrastructure for electric vehicles. The two companies will work together so as to speed up the convergence of the technological recharging solutions for electric vehicles in a sole national and European standard, furthering the definition of a legislation framework care of the regulatory bodies which supports electric mobility. Accordingly, the memorandum signed envisages the launch of joint tests and pilot projects for electric mobility in Rome and in other Italian cities and regions, downstream from specific agreements with the institutional parties responsible; the development of the recharging infrastructure for electric vehicles in Rome over the mid-term, as well as the agreements with manufacturers of electric vehicles, aimed at experimentation and diffusion of the vehicles in the area of mutual interest, and the assessment of possible joint research and development ventures also within the European sphere. The agreement is a further component for the development of sustainable mobility in Italy.

the main characteristics of the public lighting system in Rome; the "Water Charter", with the main chemical features of the drinking water distributed in the city and the leaflet, in Italian and English, ***L'acqua è un tesoro. E Acea ti regala la mappa***, featuring a **map of the city centre which shows the location of more than 200 "nasoni"** (big noses), available since last year also for iPhones, iPads and iPod Touches. The initiative addressing schools, ***Acqua spreco zero***, also continued, launched last year and furthered by the Council Office for Educational Scholastic Policies for Families and Youth of the

City of Rome (see related box) and the **financial events of the Pure Water Vision: Acea EcoArt Contest** were held, a venture launched in 2010, which met with extraordinary consensus, with more than 600 works of art acquired in the competition from 33 nations. At the end of March 2011, in fact, in concurrence with the World Water day, the **award ceremony** was held, following by **the organisation of an exhibition** at the Auditorium Conciliazione in Rome, involving the exhibiting of the works of art which received the most votes and publication of the catalogue ***EcoArt Book***.

Box – “Acqua Spreco Zero”: teachers visit Acea’s LaboratoRI

The “value” of the water resource at the heart of the 2010-2011 edition of *Acqua Spreco Zero*. (*Water zero waste*)

Savings and an informed use of the natural resource, environmental sustainability and social responsibility are the key words of the initiative furthered in thirty Roman schools by the Council Office for Educational Scholastic Policies for Families and Youth of the City of Rome and the Next Generation Act association, in collaboration with Acea. Elementary and junior high school pupils and teachers were involved in information and awareness-raising activities which contributed to spreading good practices and a careful use of drinking water in schools - and via the pupils, in families. Tap water flow reducers were installed in the bathrooms and kitchens of schools, improving the water balance of each individual school by 50%. Stickers were applied besides the taps with the pay off “Save water, improve the future of the Earth”, and students and teachers were handed teaching materials on the subject. In order to introduce the teaching staff of the 30 schools involved to the subject of the “value of water”, an exclusive visit was organised to the Acea Group company LaboratoRI. A technologically advanced structure, based in Grottarossa, among the leading in Europe with regard to laboratory, research, consulting and engineering services applied to the water cycle. Welcomed by company management, 40 teachers were able to discover the activities of the Grottarossa laboratories where each year, thanks to the hundreds of thousands of analytical checks carried out by the lab technicians, the constant monitoring of the water quality parameters throughout the entire cycle is guaranteed: from collection to its return to the natural environment.

In 2011, the **campaign for the launch of the new commercial offers** of Acea Energia was presented, with the claim “*Vivi l’energia a modo tuo*” (Live energy in your own way). The idea that each one of us can “personalise” the use of energy by choosing from among the various commercial offers that which is most in keeping with one’s lifestyle, was represented by four everyday objectives equipped with new and extravagant functions: a radiator which warms a nest, a

lamp which lights up a billiard table as if it was stadium, a drill which makes holes in doughnuts and a fan which blows away the leaves in the garden. The latter, dedicated to the environment, has been linked with the **green energy** proposal: “*Acea viva*”. The campaign, on air from the end of November 2011 to the beginning of January, was disclosed via billboards, the press, radio and the web.



What is more, particular attention was dedicated to the Environment sector, operative within the sphere of waste-to-energy and added value activities in waste management services, such as composting. This was one of the themes proposed by Acea to a young videomaker taking part in the **Movi&Co** competition, which, after having been presented in Venice during the International Film Festival, concluded on 1 December 2011 with the prize-giving ceremony at the Milan Triennial. The video created for Acea, entitled *Ricette per la natura* (Recipes for nature), received the second prize (see the related box).

Box – With Acea at Movi&Co 2011: *Ricette per la Natura* wins an award

Acea is a partner of Movi&Co since some years, a competition dedicated to aspiring young directors aged between 18 and 35. The formula envisaged that the videomakers taking part in the competition work alongside the entrepreneurial business partners of the initiative, two for each company, working on the same number of issues established by the same company. During 2011, Acea wished to propose two themes linked to the environment, asking the young directors to find a narrative and visual metaphor to relate the composting activities carried out by the Group and the story of Appio & Vergine, the couple of peregrine falcons which annually return to the nest housed on an Acea installation, permitting thousands of enthusiasts and researchers to observe the laying and hatching of the eggs, thanks to a web cam installed for the purpose. Both the videos received the jury's appreciation and that dedicated to "compost" entitled *Ricette per la Natura*, won second prize. Like a recipe, in the video, a cook cuts and chops all that usually ends up in the waste bin: banana peel, an apple core, coffee grounds, leaves from a pruned branch, and with passion places them into a pan. A romantic dinner is being prepared. Once at the table, we see the cook looking tenderly at the recipient of this meal, a splendid sunflower.

The idea which gave rise to this Ad ironically and frivolously confirms that compost is an excellent "ingredient" for nature. The technique for the creation of the video is the so-called "pixilation" formula, or rather stop-motion animation. In this case, the decision was made to use real actors, so as to provide an surreal and fantastical tone, placing them alongside ingredients which transform into small cubes of plasticine, all of which with a "still per second" sequence which regulates the rhythm of the short film.

See the section Communication, Movi&Co, on the website www.acea.it,

The External Relations Division continued in 2011 with editorial activities for updating the news on www.ambientandoci.it, the environmental portal dedicated to schools, via which various initiatives have been furthered addressing students and teachers, including the "*Aqua Nostra*" competition, supported by Acea Ato 2 and the Rotary Club of Civitavecchia and addressing pupils of elementary and middle schools in Civitavecchia, Santa Marinella, Tolfa, Allumiere and Tarquinia, along with the 2011 edition of the **School Volleyball - Acea Trophy**. 161 teams, of males and females, divided up into the Junior and Open categories took part in the 18th edition of the sporting tournament, representing around 100 high schools in Rome and the Province, **a good 3,000 youngsters involved** between February and May. The initiative, which continues to meet with great success, was combined with a number of competitions, one of which entitled *Uso Consapevole dell'Acqua-Trofeo Speciale Acea* (Informed use of water - Acea Special Trophy) which envisaged the creation of a slogan on water saving: the prize - a scholarship to study English - was won by a female student from the Vivona Classic High School who presented the slogan ***Giochiamo a pallavolo, non giochiamo con l'acqua - L'acqua è come una vittoria, non va sprecaata!***. Besides the various communications activities, illustrated above, every year Acea allows a wide range of public, ranging from schoolchildren to sector operators, to **visit its plants** thanks to the willingness and expertise of its staff: in 2011, **1,043 individuals were received**, from both Italy and overseas.

Events and solidarity

The economic value distributed to the community by the leading companies in the Acea Group remains more or less stable, amounting to **Euro 5.6 million** in 2011⁷⁷ (5.5 million in 2010). The most consistent portion of the amounts was used for the sponsorship of cultural, social and sporting events, for Euro 4.4 million, and by way of donations to associations with social ends or ONLUS (non-profit associations), for around Euro 480 thousand. Acea also offers its services (supply of electricity and water, public lighting measures, etc.) during events which see the large-scale participation of citizens, cultural and sporting in type, which animate the city benefiting residents and tourists alike. This type of measure, known as "**technical sponsorships**", involved **an economic value** in 2011 amounting to around **Euro 87,800**.

During the year, Acea supported or sponsored numerous initiatives, some of which have been recalled and illustrated below. Conventions, many dedicated to **environmental issues** closely linked to the Group's spheres of activity, **art exhibitions, musical and theatrical reviews, events linked to the celebrations for the 150 years of the Unification of Italy** or further still prizes and Summer reviews feature among the important cultural manifestations or those which see large-scale participation of the public sponsored during the year, **via which Acea takes part in the area's events**. With regard to sport, besides the sponsoring of the two traditional City

⁷⁷ This item also includes the costs incurred for "trade fairs and conventions" but not the "technical" sponsorships.

marathons and other events such as the Mille Miglia or the Italian Marathons, it should be noted that Acea has become the main sponsor and **title sponsor** of the Division A basketball team **Virtus Roma, now Acea Roma**. Solidarity initiatives which Acea wished to associate its logo with include both great events at national level such as the **Campioni del Cuore Derby** as well as more circumscribed initiatives which provided useful contributions for the achievement of specific projects locally and internationally.

The availability of the lobby at the headquarters in Rome was once again proposed, so as to permit Associations involved in social work to organise **charitable events and funding raising**. In 2011, the following were hosted:

- The ACLI – Acea Unit, for a charity sale aimed at raising funds in favour of the L'accoglienza, Passepartout and Casa

Betania co-operatives, involved in activities supporting women suffering hardship and difficulties, held on 5 and 6 December 2011;

- 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 7 April 2011, and for the sale of Poinsettias, on 7 December 2011, for the purpose of fund raising.

Acea also supported the event for the beatification of Pope John Paul the second which took place between 30 April and 2 May 2011, during which Rome accommodated more than one million pilgrims from throughout the world.

The main **events supported by Acea throughout 2011** – through sponsorships or donations – are illustrated in the boxes below, divided up according to the aim and explaining how the company participated.

Box – 2011: Acea's commitment to youngsters and the environment

- sponsor of the *Festival dell'Energia*, the main national manifestation dedicated to energy issues which in 2011 was held in Florence between 9 and 12 June;
- sponsor of *Ecopolis Expo & Conference 2011*, a venture which was held in Rome between 23 and 25 March 2011, representing one of the more important events regarding sustainable urban growth and the green economy. (Fiera Roma Srl);
- sponsor of *La Mobility nel rispetto dell'ambiente. Il ruolo del marketing*, a conference regarding the subject of sustainable mobility which was held in Rome on 22-23 September 2011 (Società Italiana Marketing);
- sponsor of *Earth Day – 2011*, the manifestation which was held in Rome on 20 April 2011 envisages events aimed at raising the awareness of the general public with regard to environment issues, energy savings and the use of clean technologies, together with a strong educational component aimed at recycling and reuse (Earth Day Srl);
- main sponsor of *MoTechEco 2011*, the festival dedicated to new technologies for sustainable mobility and national and local plans for development of the same. The initiative, an occasion for and exchange views between public institutions and sector operators, was held in Rome between 11 and 13 May 2011 (Green Action Srl);
- sponsor-partner of the television episode *Quanto consumano le città italiane: l'acqua*, which presented the case of Rome, as part of the programme *Mi chiamo città*, broadcast on Rainews 24 (Angelita Srl);
- sponsor of *Movi&Co. 2011*, 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 XVIII edition of the *2011 School Volleyball–Acea Trophy*, participated in by youngsters from high schools in Rome and the province. The prize-giving ceremony, with the awarding of five scholarships, took place on 26 May 2011 at Palazzetto dello Sport; the edition was participated in by 161 teams and thousands of students (Fipav Lazio);
- sponsor of the *Chiare, fresche e dolci acque* project, furthered by the Rome Municipal Council Agency for Educational and Scholastic Policies, and the various events related with the same for the purpose of raising the awareness of younger members of the community with regard to the correct use of the water source. Within the sphere of the project, started last year, during 2011 the *Acqua spreco zero* initiative was renewed and a cycle of **7 conferences hosted by Edoardo Vianello** was held at a number of Roman schools, drawing on ten video-clips of some of the important fountains in the city, (Associazione Culturale Acque and Next Generation Act);
- main sponsor of the *Premio Laurentum 2011-Festival della Poesia dei ragazzi*, the competition open to pupils who frequent the second cycle of primary schools and to first level secondary schools (public, private and those on equal terms) in the city of Rome concluded, with the prize-giving ceremony, on 10 March 2011 and saw the participation of more than 3,000 students (Centro Culturale Laurentum).

Box – 2011: Acea's commitment to culture and sport

- sponsor of the *Stati Generali* initiative which was held at Palazzo del Congressi in the EUR district on 22 and 23 February 2011. A key event of the Millennium Project, shared by the city of Rome (Roma Capitale) with its citizens, businesses and associations in the area, to re-launch the role of the City in the epicentre of the development flows in the 21st century (Zètema Project Culture Srl);
- sponsor of the *Noi l'Italia* exhibition, one hundred and fifty works of art created in the Laboratori d'arte of the Sant'Egidio Community, by artists with disabilities, and an installation sculpture by the artistic Anton Roca, dedicated to the 150 years of the Unification of Italy. The exhibition was opened by the President of the Republic and the works were exhibited at Palazzo del Quirinale until 31 January 2012. (SRI Group);
- sponsor of the exhibition *Leonardo and Michelangelo. Capolavori della grafica e studi romani* housed at the Musei Capitolini (October 2011 - February 2012) (Associazione Culturale Metamorfosi);
- sponsor of "Il tempo delle donne", as part of the cycle *Lezioni di Storia 2011/2012* at Rome's Auditorium Parco della Musica (Laterza Agorà Srl);
- sponsor-partner for the *2011-2012 season of the Sistina Theatre* (Il Sistina Srl);
sponsor-partner for the *2011-2012 season of the Ambra Jovinelli Theatre* (Officine Culturali Srl);
- sponsor for the *2011 season* of the performances/initiatives of the *Auditorium Conciliazione in Rome* (I Borghi Srl);
- sponsor of the first *Festival delle Bande Musicali* of the Province of Rome (Real Management Srl);
- sponsor of the opening evening of the Cento Città in Musica, 2011 edition, with free admission, which took place on 20 June at the Auditorium Conciliazione, featuring *Vivaldi's Four Seasons* concert conducted by Uto Ughi with the Rome Philharmonic Orchestra (Associazione Europa Musica);
- contributions towards the *restoration of the ancient reed Organ at the Oratory of Caravita* in Rome (Provincia Romana della Compagnia di Gesù);
- sponsor of events linked to the *Rome Carnival*, which were held between 26 February and 8 March (Zetema Cultura Srl);
- sponsor of the event *Roma si mette in luce*, which involved the city, with particular light and sound installations, shows and artistic performances during the Christmas festivities (LMC SpA);
- sponsor of *Gay Village 2011*, which was held in Rome between June and September, involving numerous initiatives, from cinema, theatre, sport to concerts (Artmediamix Srl);
- sponsor of the *Roma Città Natale* and *Grande Concerto di Capodanno a Roma* events which were held between 9 December 2011 and 8 January 2012 (Zètema Progetto Cultura Srl);
- sponsor of the *All'Ombra del Colosseo 2011* manifestation, comedy shows which were staged between June and September 2011 as part of the Estate Romana festival (ACSD Castellum);
- main sponsor of the *Italian Marathon* circuit, 19 races envisaged between 2011 and 2012, in various Italian cities (Associazione Maratone Italiane);
- main sponsor of the 2011 edition of the traditional sporting manifestation *Maratona della città di Roma – Trofeo Acea*, the most highly-attended athletic event in Italy (Atielle srl) and major sponsor of the *Maratonina Roma-Ostia*, a mini marathon (Roma Ostia Srl);
- main sponsor and title sponsor, for the 2011-2012 season, of the *Virtus Roma basketball team*, now *Acea Roma* (Pallacanestro Virtus srl);
- sponsor of *Mondo Fitness 2011*, the most important sporting event of Estate Romana, which sees the large-scale participation of citizens, held between 6 June and 7 September 2011 (Associazione Sportiva Mondo Fitness);
- sponsor of the *2011 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 2011, the event was held between 12 and 14 May. (Gruppo Meet);
- Contribution towards the sporting manifestation *Bici Roma 2011*, which was held in Rome between 3 and 5 June (Associazione Due Ruote d'Italia).

Box – 2011: Acea's commitment to solidarity

- Main partner of the *Derby Campioni del Cuore* event, which was held on 30 May 2011 at the Olympic Stadium in Rome, as part of the celebrations for the 150th anniversary of the Unification of Italy. Footballers, actors, singers and show people entered the pitch to liven up an evening of football, entertainment and solidarity. The funds raised were allocated to voluntary associations which deal with infancy issues;
- sponsor of the first performance of *The Nutcracker* ballet at the Teatro dell'Opera di Rome. This initiative aimed to raise funds to support the charity work of the Circolo San Pietro (Associazione culturale Work&Progress);
- contribution for the accomplishment of the concert-event *Tutti insieme*, of the Nazionale Italiana Cantanti, at the Auditorium Conciliazione in Rome, the proceeds of which were given to the Parco della Mistica Foundation, created to build the Campus Produttivo della Legalità e Solidarietà, in an area covering 27 hectares, close to the capital (Fondazione Parco della Mistica Onlus);
- sponsor of the *September Concert* event, three days of events at Rome's Auditorium Parco della Musica to commemorate the 11th of September, on the tenth anniversary of the attack on the Twin Towers. The aim of the venture was to promote reflection on the value of peace, by means of using art. The initiative received the Patronage of the President of the Republic (Compagnia per la Musica, the cultural non-profit association which in Italy represents the US September Concert Foundation);
- contribution towards the activities of the *Centre for the study and prevention of mood disorders and suicide* – Onlus Sant'Andrea (Azienda Ospedaliera S. Andrea);
- contribution towards the organisation of *two cultural days*, 16 and 21 December 2011, dedicated to the inmates of Rebibbia Prison in Rome (Associazione Culturale Sapori Reclusi);
- contribution to the *Settimana Nazionale AIRS per la lotta alla sordità*, 24-30 November 2011, dedicated to information, raising awareness and curing hearing disorders (Associazione Italiana per la Ricerca sulla Sordità - AIRS Onlus);
- contribution for the accomplishment of the *Nikis European Golf Club Championship 2011*, the golf tournament which was held in Rome on 16 and 17 September 2011, the aim of which is to create a bequest for youngsters who have suffered road accidents and thus can no longer play their chosen sport. (Associazione Niki's Sport Events Onlus);
- contribution towards the service which provides *support for AIDS victims* during the Europride manifestation on 11 June 2011 (GAIA Società Cooperativa Sociale);
- contribution towards the creation of the *Unite contro i disturbi alimentari*, il corpo della donna è vita calendar, upon the initiative of the Associazione Donna Donna Onlus, the aim of which is to prevent eating disorders creating a network of experts and projects to encourage the treatment and care of the same (Donna Donna Onlus);
- sponsor of *In forma per la vita – Modella Oggi*. A week of events, between 7 and 11 August 2011, organised for the purpose of raising the awareness of youngsters and operators in the fashion and advertising industry with regard to the problem of anorexia (ACMS Promo Grandi Eventi – Associazione Culturale);
- contribution for the purchase of a *swimming pool*, outdoor, to be installed in the sporting and games area of Casa Famiglia Villaggio So.Spe., in Roma, a structure for accommodating differently-able children (Associazione Volontariato So.Spe.- Solidarietà e Speranza);
- sponsor of the concert-event *Canto di Natale*, organised at the Auditorium Parco della Musica, on 15 December 2011. In a musical and narrative key, the evening desired to emphasise the importance of solidarity, welcome, with the performance of the best voices in Italian and international light music. The proceeds from the concert were donated to the Ospedale Pediatrico Bambino Gesù in Rome (Associazione Comunicazione Reale);
- contribution via the purchase of Christmas cards for the *realisation of two water-sanitary projects in Kenya*: the construction of a well in a rural area and a cistern at a school (AMREF Italia Onlus).

Even outside the capital, in areas where the activities of a number of Group operating companies take place, certain cultural events were supported, such as the **Festival Orvieto Ushuaia Classica**, the **Umbria Jazz Festival 2011**, the second edition of the Reate Festival, an internationally important multi-disciplinary event, featuring classical music, jazz and dance, which was held at the Flavio Vespasiano Theatre in Rieti between 20 August and 1 September 2010, the **V Conferenza Nazionale Italia-America Latina e Caraibi** which was held in Milan on 2 and 3 December, an **itinerant exhibition on the**

integrated water service in the Tuscan area of ATO 3 – Medio Valdarno, where Publiacqua is operative wishing to celebrate ten years of activities in this way, the environmental educational project **Differenzio anche io 2011**, regarding the disposal and recovery of waste, addressing primary schools in Aprilia where the Kyklos composting plant is located, together with numerous Summer events in the municipalities of Bracciano, Trevignano, Anguillara, Marino, Cervara, Allumiere, Frasso Sabino and S. Vittore del Lazio.

Suppliers

Consolidated external costs

In 2011, the **consolidated external costs** of the Group amounted to around **Euro 2.60 billion, down 2.7%** with respect to the Euro 2.67 billion in 2010 (see *Corporate Identity*, section *General economic indicators*). The costs which had the greatest impact concerned the activities of the **energy and gas sector**, for around Euro 2.03 billion (Euro 2.14 billion in 2010), even if the outlay for the purchase of gas and fuels intended for the running of the plants and for the acquisition of green and white certificates and CO₂ rights in fact decreased overall by around Euro 409 million. The second most important item was

services, totalling Euro 331.5 million, up Euro 8 million with respect to 2010, while other cost components remained more or less stable (**fees and sundry charges**).

The rest of the section by contrast illustrates the **procurement of goods, services and work**, for a total expenditure of around **Euro 481.5 million**, handled, for the various Group companies (see *2011 Boundaries* for the related section), by the corporate Purchasing and Logistics Division, set up in 2011 with the approval of the new macro-structure⁷⁸.

Purchasing policies

The **supply policies** are under the responsibility of the **Purchasing and Logistics Division**, which has, among other aspects, 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». The Division was completely reorganised in 2011 with measures which changed the structure and operating procedures, so as 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 commodities' category. This reorganisation also concerned the Supplier qualification systems which were separated from the Purchasing division so as to make the two activities totally independent.

Operational supervision is ensured **by the Planning, Control and Marketing Unit for purchases**, which is responsible for proposing the purchasing strategies in line with the Group's objectives, guaranteeing the analysis of the needs of the Companies/Divisions and the drafting of the Group procurement plan, monitoring the evolution of the market of suppliers, the price trend and technological innovations. New purchasing strategies were defined during the year and tested in certain commodities' areas, with an approach oriented at "category management".

Handling of supplies took place in complete observance of the reference legislative framework⁷⁹; 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.

The Group's value codes⁸⁰ pay particular attention to the relationships between Acea and the suppliers. The **Tender Ethics Code**, adopted in 2003, guides the conduct of the contractor and the contracting companies, with reference to the principles of correctness, transparency and protection of competition. The **Group Ethical Code**, adopted in 2004, lays down the principles of transparency and integrity, the safeguarding of ethical aspects in supplies, the criteria for overseeing the choice of the suppliers and the correct conduct of the human resources responsible for procurement. Express acceptance of both value codes is an **indispensable condition for taking part in the procedures for entrusting work, goods and services** and for being able to access the Qualification Systems present within Acea; furthermore, if **violation of the value codes is duly proven, this leads to exclusion from the tender or cancellation of the awarding of the contract** (Article 8.1 *Tender Ethics Code* and Article 26 *Group Ethical Code*).

In June 2011, the new procedures were launched regarding

⁷⁸ The Group's new macro-structure was approved by Acea SpA's Board of Directors during the meeting held on 25 January 2011 and has been in force since 1 February 2011.

⁷⁹ Italian Legislative Decree No. 163 dated 12 April 2006 – Code of public contracts relating to work, services and supplies implementing EU directives 2004/17/EC and 2004/18/EC.

⁸⁰ Both the *Tender Ethics Code* and the *Acea Group Ethical Code* are available on-line on the Company website (*Suppliers and Regulations and values* sections).

Box – Acea’s Code of Ethics: safeguarding of the ethical aspects in supplies

Code of Ethics, Article 14.3:

«Within the sphere of the procurement activities, Acea undertakes to further observance of the environmental conditions and ensure that they are carried out in compliance with the ethical principles and the law, requesting socially relevant requisites for particular supplies.

Accordingly, in contracts with suppliers in countries at risk - defined as such by the recognised organisations - contractual clauses are included 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 action for carrying out checks at production units or operating premises of the Supplier company, for the purpose of checking these requirements are met».

purchases which, in line with the Purchasing and Logistics mission, pursue the aim of **concentrating the procedures for the planning of procurement and selection of the supplier** within the holding company, making the process more effective and efficient. In order to carry out the “**purchasing HQ**” service for the Group companies, the Planning, Control and Marketing Unit for purchasing launched and **completed in 2011** the project relating to the **management via SAP of the process for purchases for work**, so as to rationalise the procurement procedure also from an accounting standpoint and align it with that concerning purchases of goods and services.

Thanks to the full operations of the **Plejade** portal

(www.plejade.it/aceaspa), in 2011 the procedures for selecting contracts for work, goods and services, save rare exceptions, **have been accomplished by means of the IT platform⁸¹ without forwarding paper documents** and with the use of the **digital signature**, in line with the stance adopted by public administration authorities concerning digitalisation and with evident cost savings and environmental benefits. The notice relating to the calling of European tenders - and the related enclosures - are published on the Plejade portal. The **consolidated purchasing portal** is also active 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

2011 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 Ato 5 Servizi, Acea Gori Servizi, Acea Ricerca e Perdite, Sarnese Vesuviano, Crea Gestioni Acea8cento, Marco Polo (Acea branch), 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, Apice, Ecoenergia 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 2011 Boundaries, on a consistent basis with last year, taking into account the winding up process of the JV with GdF Suez Italia Energia.

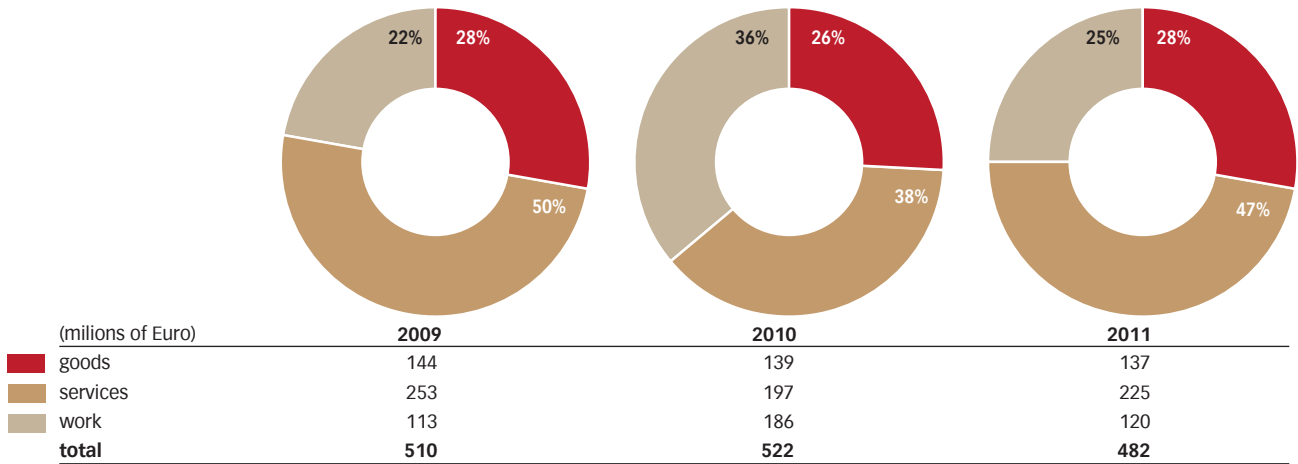
The overall economic value of the contracts awarded during the year, totalling Euro 481.5 million⁸² was down

7.8% with respect to the roughly Euro 522 million in 2010, specifically due to the **sharp drop in the item “work”** (-35.6%) **and the increase**, more contained (14.3%), in **costs for services**, both figures going against the trend with respect to last year, while the slight decrease in costs for the purchase of goods was in line with the three-year trend (see chart No. 22).

⁸¹ Observance of the provisions concerning archiving continued to apply, as guaranteed contractually by Acea’s partner portal.

⁸² 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. 22 – VALUE OF TENDER CONTRACTS AND INCIDENCE OF THE MAIN TYPES ON THE TOTAL (2009 -2011)

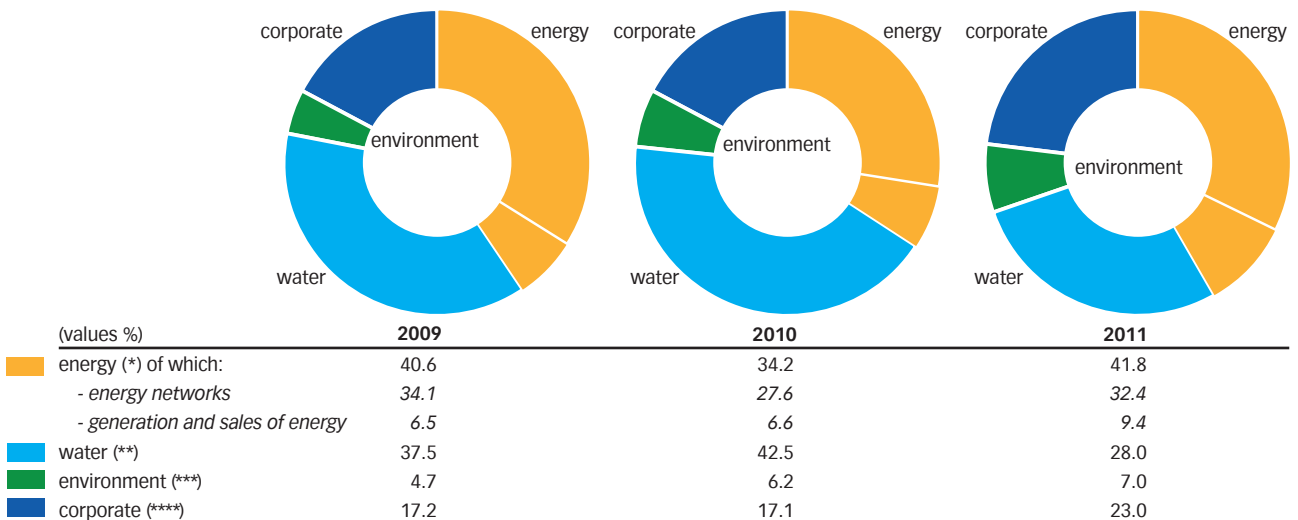


NB: the values in the table have been rounded up.

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 their percentage incidence on the total is observed (see chart No. 23) it can be noted that, between 2011 and 2010, there was an increase in the weight of the energy area - in particular both in the

“networks” segment and in the “market” area, costs rose for goods and services - and a decrease in the incidence of the water area, where the reduction of “work” costs was concentrated; the incidence of the corporate area was also up (in particular for “services”) while the percentage weight of the environment areas remained more or less constant, with a slight increase related to expenditure for work tenders.

Chart No. 23 – BREAKDOWN OF THE COSTS FOR SUPPLIES (GOODS, SERVICES, WORK) BY BUSINESS SEGMENT (2001-2011)



(*) 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, further to the winding up of the JV with GdF Suez Energia Italia SpA, 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, LaboratorioI; Acea Gori Servizi, Acea Ato 5 Servizi, Acea Ricerca e Perdite, Sarnese Vesuviano and, since 2010, also Crea Gestioni.

(***) the environment 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, Enercombustibili, Ergo Ena, A.P.I.C.E. and Ecoenergie.

(****) the corporate area, within the sphere of the Group services, includes the companies Acea SpA, Marco Polo (Acea branch) and Acea8cento.

The procedures fulfilled for work, goods and service contracts which fall within the **special sectors of water and energy** 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).

In the **Suppliers section** of the corporate **website** (www.acea.it) the operators can access information, forms and the Qualification Systems; **the dedicated IT portal - Pleiade** - makes 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 portal is also able to **handle the Qualification Systems and the tenders announced among the companies enrolled in the same, in an integrated manner.**

Goods and services

The amount intended for the purchase of **goods and services** in 2011 amounted in total to **Euro 361.6 million**, disclosing an **increase of 7.5%** with respect to the Euro 336 million in 2010; the percentage of this item with regard to total procurement also rose, reaching 75%, compared with 64.3% last year. Changes were also seen in the percentage breakdown of the value of the goods and services procured by macro-area, **with greater costs incurred for these items by the energy area** (networks, generation and sales) **and by the corporate area**, to which 47.3% and 29% of total expenditure pertains respectively (the 2010 breakdown was 43.6% and 25%), while **costs for goods and services in the water area were down**, with a percentage of 19.8% out of the total (26.3% in 2010) as were those for the **environment segment** (waste-to-energy and waste management services), with a weight of 3.8% compared with 4.6% in 2010.

With regard to **supplies of goods and services** for an amount **less than the EU threshold** (equating to Euro 387,000⁸³) Acea applies the **In-house Regulations**⁸⁴ 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.

The companies directly access the tenders, published **on-line**, without any charge. During 2011, a total of⁸⁵ **411 tenders** were announced **by means of publication on the Pleiade portal** and **15 tenders** were awarded, **by means of European announcement.**

For the purchase of goods and services, during 2011 the Purchasing and Logistics Division followed the procedure for the requests issued by the Group companies/Units, processing **3,099 Purchase Orders**. Of these, around 65% involved contained amounts under Euro 50,000, while the remaining 35%, involving amounts over Euro 50,000, absorbed 93% of the total value of the goods and services procured⁸⁶.

Chart No. 24 shows the **geographic distribution**, in 2010 and 2011, **of the amounts spent** for the procurement of goods and services. With respect to the previous year, the percentage of the value of purchases from abroad rose and was perfectly balanced between North and Central Italy. In detail, during 2011, out of a total of 1,593 suppliers, 67.2%, equating to 1,071 suppliers, were concentrated in **"central Italy"** and **absorbed around 41% of the value of the purchases of goods and services**; in this grouping, Lazio represents 906 suppliers and **Euro 104 million** assigned for purchases, equating to **around 29% 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.**

The top 10 companies which supply goods and services for 2011 were awarded around **33.7%** (equating to around Euro 107 million) of the total value spent for such procurement.

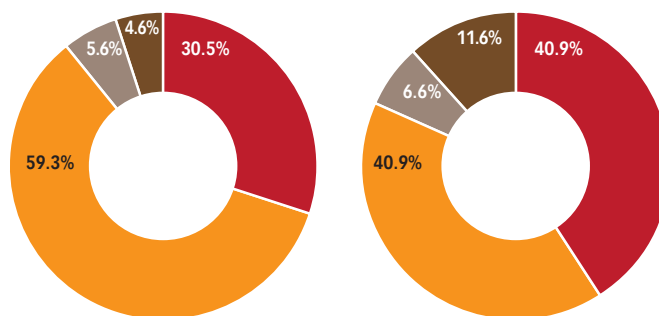
⁸³ EC Regulation No. 1177/2009, in force since 2010.

⁸⁴ 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.

⁸⁵ Including the tenders carried out by the companies in the energy area (market): Acea Energia holding, Acea Energia and Acea Produzione.

⁸⁶ Equating to Euro 361.6 million.

Chart No. 24 – GEOGRAPHIC DISTRIBUTION OF THE SUPPLIERS AND THE AMOUNTS FOR THE PROCUREMENT OF GOODS AND SERVICES, IN ITALY AND ABROAD (2010-2011)



(millions of Euro)	2010	2011
north Italy	92	148
central Italy	179	148
south Italy and islands	17	24
abroad	14	42
total	302	362

NB: the 2010 figure did not include the companies of the JV with Electrabel.

Table No. 42 - 2011 TOP TEN SUPPLIERS OF GOODS AND SERVICES TO THE GROUP (*) AND PERCENTAGE OF TOTAL

suppliers	%	% accumulated	suppliers	%	% accumulated
SUN EARTH SOLAR POWER CO. LTD	7.1	7.1	TELECOM ITALIA SpA	2.1	26.0
NINGBO SOLAR ELECTRIC	4.9	12.0	FASTWEB SpA	2.0	28.0
ATI – SODEXO MOTIVATION SOLUTIONS	4.8	16.8	ITALIAN CABLE COMPANY SpA	2.0	30.0
QUI GROUP SpA	4.7	21.5	BENI STABILI GESTIONI SpA	2.0	32.0
SIDEREDIL Sas	2.4	23.9	SEA. SOC. ELETTR. ARZIGNANESE SpA	1.7	33.7

(*) Excluding the companies in the energy area (generation and sales): Acea Energia holding, Acea Energia, Acea Produzione, therefore the percentage-based incidence is calculated on the total expenditure for “goods and services” amounting to Euro 317.4 million.

Work

Expenditure for **work contracted** out amounting to **Euro 119.9 million** in 2011, representing around 25% of the total cost for purchases, **dropped 35.6%** with respect to the approximate Euro 186 million intended for this item in 2010.

The marked decrease in the value of work awarded is reflected in a different percentage-based distribution between the business areas: to the **water area** was assigned 52.5% of the total cost for the procurement of work (in 2010 the percentage was **71.8%**), to the **energy area** (networks, generation and sales) was assigned **25.4%** (previously 17.1%), to the **environment area** (waste-to-energy and waste management services) was assigned **16.9%** (previously 9.2%) and to the

corporate area (Group services) **5.2%** (previously 1.9%).

By contrast, in absolute values, with the exception of a light rise in the corporate and environment area, the general trend of a decrease in this cost item was confirmed in the majority of the Group companies, albeit more significant in the water area. During 2011, **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 4.845 million⁸⁷), the In-house Regulations⁸⁸ 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

⁸⁷ EC Regulation No. 1177/2009.

⁸⁸ The In-house Regulations for work of special sectors “below the threshold” were adopted in August 2006 within Acea pursuant to Article 238.7 of Italian Legislative Decree No. 163/2006.

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 **77⁸⁹**, **60** of which were **on-line tenders** and **7 with announcement**.

The top ten suppliers of work in 2011 were awarded around **48.6%** (around Euro 58 million) of the total value allocated to this procurement item.

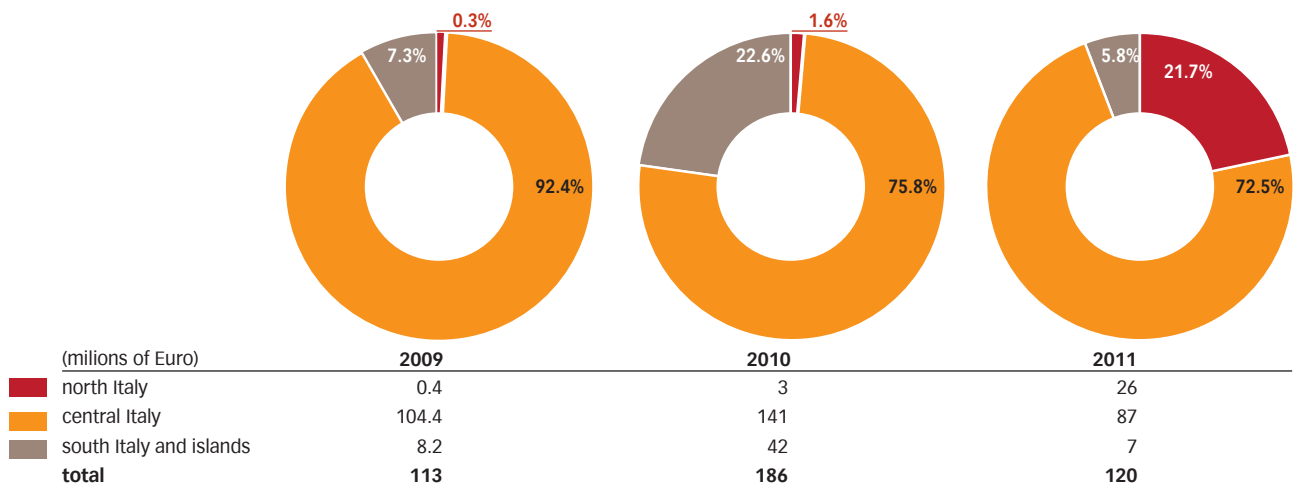
Chart No. 25 shows the geographic distribution of the amounts for work contracted out in the last three years. An inconsistent trend can be seen for the three macro-areas of the country (north, central, south and the islands), and in particular, between 2011 and 2010, the increase in the value of work awarded in north Italy and the decrease in the south and islands, while in **central Italy**, the area in which the activities of the operating companies are mainly carried out, the greatest portion of the total value of work contracted out is concentrated: **72.5% in 2011**, and in particular in **Lazio**, which absorbs around **70.8%** of the value of the work awarded, equating to **Euro 85 million**, with 55 supplier companies out of a total of 70 suppliers.

Table No. 43 – 2011 TOP TEN SUPPLIERS OF WORK TO THE GROUP (*) AND PERCENTAGE OF TOTAL

suppliers	%	% accumulated	suppliers	%	% accumulated
ATI – INTERCANTIERI VITTADELLO	16.6	16.6	DE.NE.DA. Srl	3.3	36.0
SO.I.GE.A.. Srl	4.3	20.9	LUNICA SOCIETA' CONSORTILE	3.3	39.3
CICCHETTI REMO E FIGLIO Srl	4.1	25.0	CORSINI COSTRUZIONI Srl	3.2	42.5
COREL Srl	4.0	29.0	CANTIERI MODERNI Srl	3.1	45.6
G.T.A. Srl	3.7	32.7	ACQUA E AMBIENTE Scarl	3.0	48.6

(*) the analysis also includes the work awarded pertaining to the companies in the energy area (generation and sales): Acea Energia holding, Acea Energia, Acea Produzione.

Chart No. 25 – GEOGRAPHIC DISTRIBUTION OF THE AMOUNTS FOR WORK CONTRACTED OUT (2009-2011)



⁸⁹ The number also includes the work awarded pertaining to the companies in the energy area (generation and sales): Acea Energia holding, Acea Energia, Acea Produzione.

Supplier assessment

Qualification Systems are active within Acea **for the suppliers of work, goods and services**; these are regularly up-dated. Since 2011, the Parent Company's Safety and Protection Division is responsible for the co-ordination of the entire Supplier Qualification and Rating Process, specifically the registration and updating of the Group's Supplier Registers and the Vendor Lists, and the collation and keeping of all the information relating to the performances of the Supplier (Rating).

The companies who decide to be included must demonstrate they possess general requirements established by sector legislation (so-called "moral requirements") and the special requirements (technical and quality-related) established for each System and described in the respective Qualification Regulations, available on-line on the company website. 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**. The special requisites include the possession of suitable **company Quality System**, compliant with the UNI EN standards in force, even if not obligatory in accordance with current legislation.

The suppliers can enrol in the Qualification Systems set up by Acea at any time, forwarding a request for enrolment in the Register and the accompanying documentation. If, during the checks and up-dates carried out each year, the requisites held at the time of enrolment no longer exist, the companies will be suspended from the Register pending the reinstatement of the due conditions.

The Qualification Systems active as of 31 December 2011 within Acea include:

1. the Qualification System of the companies which **perform electrical - 2011 edition work** (HV overhead lines and underground cables; MV/LV overhead lines and cables; primary and sub-stations, public and artistic lighting systems);
2. the Qualification System of the companies which perform **water and electromechanical work - 2011 edition** (water and sewer networks; aqueduct pipes and sewer mains;

- district heating, mechanical installations, electrical systems, telecommunications and automation installations);
3. the Qualification System concerning the **supply of motor pumps**;
4. the Qualification System concerning the **supply of electrical cables**;
5. the Qualification System concerning the **supply of transformers**;
6. the Qualification System concerning the **supply of water meters**;
7. the Qualification System concerning the **supply of LED technology frameworks, activated in 2011**;
8. the Qualification System concerning the **supply of functional frameworks for street lighting, activated in 2011**;
9. the Qualification System concerning professional services for the **handling of licences and direction of works and archeological surveillance, activated in 2011**;
10. the Qualification System concerning professional services for the **co-ordination of safety, activated in 2011**.

Following the publication in 2011 (July-September) of the new editions of the Qualification Systems dedicated to work, for the water and electricity segments, the situation of the registration in the two Systems, as of 31 December 2011, was provisional, since to that date the **approval process relating to the requests for enrolment presented was underway**.

In detail, as of 31 December enrolment in the new system for electrical work had been requested by 27 suppliers, while the candidates for the water and electromechanical work system came to 85. An increase is expected in the requests for enrolment during the first four months of 2012, since the companies enrolled in the previous qualification systems in force (113 for water work; 45 for electromechanical work and 37 for electrical work) would otherwise lose their right to be invited to submit bids.

With regard to the **commodities' Qualification Systems, activated in 2011**, already 5 suppliers qualified for the Functional street lighting frameworks Register have been enrolled, along with 8 for the LED technology frameworks Register; the number of suppliers enrolled in the Supply systems already set up by contrast remained unchanged (8 suppliers for the electrical cables Register, 8 for the transformers Register and 5 for the water meters Register).

What is more, during 2011 a number of **Qualification systems dedicated to Professionals** were published: Specifically, as of

31 December there were already 18 suppliers enrolled in the Register of Safety co-ordinators, 29 professionals in the Register dedicated to works management and 6 professionals in the Register reserved for archeological surveillance.

The Purchasing and Logistics Division paid particular attention to the aspects linked to the assessment of safety and quality, and decided to implement a system for the vendor rating of all the suppliers which will come into service in 2012; this will measure the performances of the suppliers assessing the

different operating and commercial ones, as well as those relating to work safety and environmental protection.

During 2011, **Acea Distribuzione** continued to apply 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, from some years now, in collaboration with Tor Vergata University.

The assessment system, **centered on quality and safety**, envisages site inspections and the creation of **merit ratings based on the reputation of the contractors**, which are taken

Box – Quality and safety: the Vendor rating system for work in the energy area

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 135 opinion parameters centered on **quality and safety**, further to site inspections, and turns them into an “Indicator of Reputation” (IR).

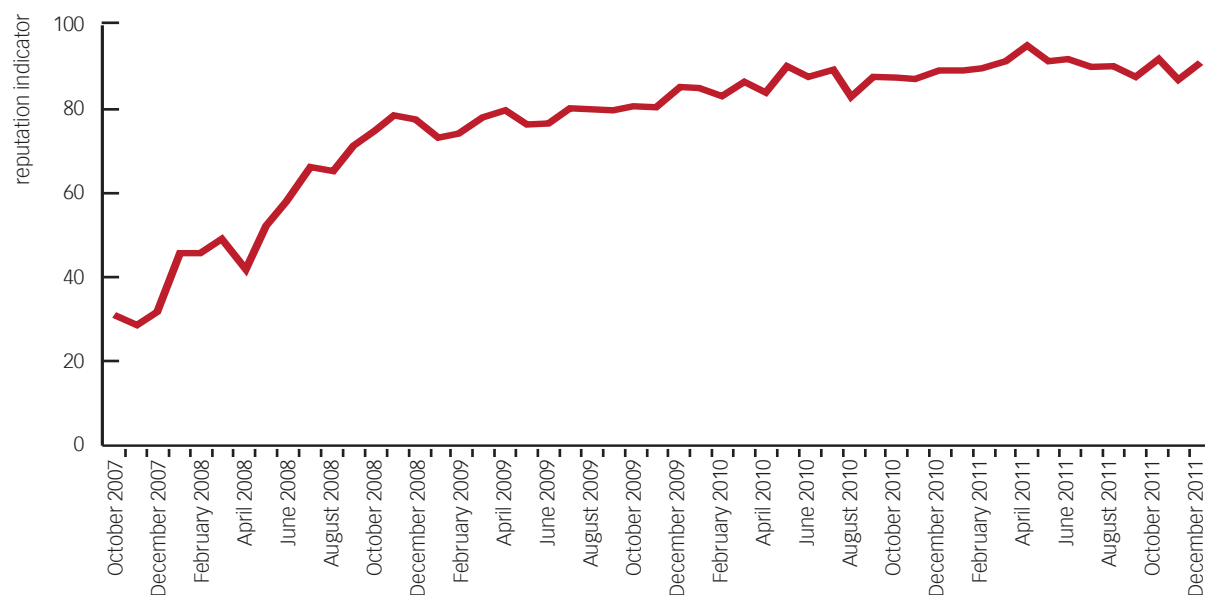
This IR has been introduced as a possible **additional parameter in the formula for awarding contracts**, rewarding the companies with the best safety and quality standards.

The Acea Distribuzione “**Inspection and Checks**” Unit carried out around 3,800 inspections between 2008 and 2011. The average monthly **indicator of reputation** for companies increased from a value of around 40 – at the beginning of the project – to a result of more or less **91.5**, 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 performance over time of the average assessment on all the companies from the launch of the system until the end of 2011.

Overall valuation of companies (October 2007 – December 2011)



into account, objectively and not predominantly, in the awarding of the tenders. The application of fines is also possible along with the suspension of the contractor's activities: **in 2011, 33 sites were suspended** due to safety non-compliances, with regard to a total of **962 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 and safety** and during the year an additional **increase** was obtained **in the average reputation index** of 34 companies who worked for Acea Distribuzione,

passing from a value of 87.78 in December 2010 to **91.5 in December 2011** (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**.

Box – 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 petitions 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, **11** positions were opened and closed in 2011. Another **10** positions by contrast are pending and concern non-payments for contractual breaches.

In relation to the disputes on tender contracts, these mainly concern petitions made to the TAR (regional administrative court) regarding work awarded (**21** petitions), or before the civil courts relating to reservations, terminations, etc. for **39** proceedings underway, mostly dating back to contractual relationships in the early 2000s, which therefore are subject to the duration and level of the legal proceedings.

Human Resources

Acea's employees

The Group headcount as of 31 December 2011, by consolidation percentage, numbered 7,050 resources (+2% approximately on 2010). The winding-up of the energy joint venture AceaElectrabel also affected the dynamics of the human resource numbers: the disposal of the companies involved in production and trading gave rise to a reduction of 154 units, which should be placed in relation with the increase of 76 resources attributable to the new generation company Acea Produzione and the increase of 92 resources attributable to the new sales company Acea Energia (and its investee

companies), both wholly-owned today by Acea SpA.

Other significant changes concerned the resources within the Group water companies, with the exit of 60 employees from Acea Ato 2, the registration of 156 resources from Acquedotto del Fiora, included since 2011 on a proportional basis in the scope of consolidation, and the increase of 52 employees care of the companies operating abroad. The human resources operating care of the companies in the environment business also increased by 21, while in the networks area, the employees of Acea Distribuzione fell by 79.

Table No. 44 – EVOLUTION OF GROUP EMPLOYEES BY BUSINESS SEGMENT (2009-2011) (year end balances by consolidation percentage)

business area	2009	2010	2011
	No. of employees		
water	3,921	4,169	4,334
<i>of which</i> Lazio-Campania	2,294	2,150	2,189
Tuscany-Umbria	720	715	853
abroad and LaboratoRI (*)	907	1,304	1,292
energy	1,920	1,863	1,796
<i>of which</i> networks	1,596	1,544	1,465
generation and sales	324	319	331
environment	179	181	202
structure (Acea SpA+Acea8cento)	700	700	718
total	6,720	6,913	7,050

(*) The total for abroad and LaboratoRI in 2010 included the 67 resources from Acea Gori Servizi, reclassified in 2011 in the Lazio-Campania water area.

Table No. 45 – GEOGRAPHIC LOCATION OF HUMAN RESOURCES (2010-2011) (*)

location	2010		2011	
	No.	%	No.	%
central-north (Tuscany-Umbria-Lombardy)	884	12.8	1,043	14.8
central-south (Lazio-Campania-Puglia)	4,939	71.4	4,865	69
abroad	1,090	15.8	1,142	16.2

(*) 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, the 3 companies deriving from the winding up of the joint venture between Acea and GDF Suez Energia Italia: Acea Energia holding, Acea Energia e Acea Produzione, Acea8cento, Acea Ato 2, Acea Ato 5, Umbra Acque, LaboratoRI, Acea Gori Servizi Scarl, Crea Gestioni Srl (which absorbed Crea Partecipazioni and Acea Rieti), Gesesa, Sogea, Lunigiana, Solemme, A.R.I.A (which absorbed EALL, Terni En.A, Enercombustibili and Ergo Ena), SAO and, for the two-year period 2010-2011, Aquaser.

The figures relating to the composition of Acea human resources, illustrated below, have been more fully extended, also including **Aquaser** in the analysis, for the period 2010-2011, which as from 1 January 2010 was undertaken by Acea SpA's centralised administration service. All the figures relating to 2010, shown in the tables, have consequently been recalculated.

During the **three-year period 2009-2011**, a tendential **reduction in the overall number of resources employed** by the Group was seen, on a consistent basis with the process for adapting the workforce to the operational and organisational needs launched by Acea as from 2009 (see table No. 46). Analysing the figures relating to **each professional category** in detail, the **progressive decrease in the balances** relating to **executives, white and blue-collar workers** was seen, while

the middle management category went against the trend with a slight **increase** since 2009. 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. During the three-year period in question, the **percentage of female staff to total workforce resources rose**, albeit in a contained manner, reaching **21.3%** in 2011, compared with 20.9% in 2010 (see table No. 46).

For a clearer interpretation of the figures relating to the composition and numbers of the company workforce, it is advisable to consider that the specific type of the business managed requires a greater use of technical staff, in Italy still predominantly men, and that this largely determined the professional structure and gender of the resources.

Table No. 46 – ACEA'S EMPLOYEES: COMPOSITION OF THE HUMAN RESOURCES (2009-2011)

(number)	2009				2010				2011			
	men	women	total	%weigh	men	women	total	%weigh	men	women	total	%weight
executives	112	21	133	2.4	109	21	130	2.4	95	20	115	2.2
middle management	248	82	330	5.9	266	88	354	6.6	265	100	365	7.1
white-collar workers	2,159	1,030	3,189	57.2	2,047	1,016	3,063	56.8	1,918	966	2,884	56.4
blue-collar workers	1,921	3	1,924	34.5	1,844	4	1,848	34.3	1,746	4	1,750	34.2
total	4,440	1,136	5,576	100.0	4,266	1,129	5,395	100.0	4,024	1,090	5,114	100.0

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. 44).

During 2011, **human resources recruited** underwent a further **decrease** with respect to the figures for the previous two years, on a consistent basis with the mobility plan and the downsizing of the workforce (see table No. 47). The **92 new recruits** were the result of the 36 recruits from the outside employment market, 23 human resources stabilised under collaboration, project or work training agreements, 2 acquired

from public bodies, as envisaged by the water segment in the process for acquiring municipalities under management, and 31 transfers of human resources between Group companies not included in the reporting boundaries. The companies affected the most were Acea SpA (27 new recruits, of which 21 transfers 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 and 6 recruits), Acea8cento (10 recruits), Acea Ato 2 (9 new recruits, 2⁹⁰ of which acquisitions and 7 recruits) and the company A.R.I.A. (11 recruits). During 2011, 2 resources were taken on under professional training apprenticeship contracts. The process for the **transformation of the apprentices**, already present in-house and adequately trained over the three-year period, **into employees under permanent contracts** continued; for example, 9 in Acea SpA and 44 in Acea8cento. The introduction of youngsters in-house intensified, by means of the activation in 2011 of **97 project contracts** (55 in 2010).

Human resources leaving the company rose, in line with the trend already noted in the previous two-year period (see table No. 47). During 2011, in particular, this trend was determined both by the implementation of mobility agreements for the functional changeover of the human resources and by the **results of the spin-off of the joint venture** between Acea and GdF Suez Energia Italia SpA, following which **140**

resources employed care of the electricity production and trading companies made themselves available for new placement **with the French company**.

The **human resource lay-off procedures**, subject to trade union negotiation, envisage the performance of preliminary organisational analysis, aimed, among other things, at limiting the social impact of the retirement process: the human resources laid off are in fact identified within the organisational areas noted as in excess and from among those individuals who have the age-contribution requirements for retirement within three years of the termination of the employment relationship. During the year, **108 employees** were laid off (73 from Acea Distribuzione, 32 from Acea Ato 2 and 3 from Acea SpA). The number of human resources involved in **subsidised voluntary redundancy plans** was also considerable: 47 resources in 2011 (26 of which belonging to Acea Ato 2), who decided to terminate their employment contract with the company by means of agreement and with payment of an incentive.

Table No. 47 – ACEA'S EMPLOYEES: NEW RECRUITS AND LEAVERS (2009-2011)

(number)	2009			2010			2011		
	men	women	total	men	women	total	men	women	total
new recruits (*)									
permanent positions	165	46	211	94	25	119	57	17	74
temporary positions	27	16	43	18	19	37	9	6	15
induction contracts	4	2	6	4	1	5	0	1	1
professional training apprenticeship contracts	24	26	50	8	12	20	1	1	2
total	220	90	310	124	57	181	67	25	92
<i>(of which) acquisition of staff from public authorities</i>	91	12	103	37	7	44	2	0	2
leavers (**)									
mobility (lay offs)	32	8	40	180	21	201	102	6	108
redundancies	18	2	20	51	11	62	45	2	47
retirements	9	0	9	7	2	9	4		4
dismissals	2	2	4	1	1	2	3	1	4
spin-off of joint-venture between Acea and GdF Suez Energy Italia SpA							103	37	140
other reasons	97	25	122	59	29	88	52	18	70
total	158	37	195	298	64	362	309	64	373

NB: the 2010 figures have been recalculated including Aquaser.

(*) The item 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 pre-retirement with incentive which the company proposes to employees near to retirement age; the item "redundancies" indicates the consensual and incentivised termination of the employment contract, the item "other reasons" includes leavers due to: resignation (28 in 2011), demise (9 in 2011), contract expiry (26 in 2011), disputes (1 in 2011), transfer of staff to Group companies outside the reporting boundaries (5 in 2011) and just cause (1 in 2011).

The **average duration of the employment relationship of human resources leaving** the Group in 2011 was, for 79.3% of the resources, less than 30 years (69% in 2010) and comes to

between 30 and 40 years for 20.7% (31% in 2010). This highlights the stability of employment within Acea.

⁹⁰ This type of recruitment, technically defined as "insourcing", takes place in compliance with the joint provisions of Lazio Regional Law No. 26/88, Italian Legislative Decree No. 152/06 and implementing Trade Union Agreements.

Considering just the Group companies involved in the energy sector, the figures are essentially in line, with 78.6% of leavers who have worked for the company for a maximum period of 30

years (59% in 2010) and 21.4% for a period of between 30 and 40 years (41% in 2010).

Table No. 48 – ACEA'S EMPLOYEES: DURATION OF THE EMPLOYMENT RELATIONSHIP (2011)

duration of the employment relationship	leavers in 2011		
	men	women	total
≤ 30 years	236	60	296
> 30 years and ≤ 40 years	73	4	77
> 40 years and ≤ 50 years	0	0	0
total	309	64	373

Table No. 49 – ENERGY SECTOR COMPANIES: DURATION OF THE EMPLOYMENT RELATIONSHIP (2011)

duration of the employment relationship	leavers in 2011		
	men	women	total
≤ 30 years	151	44	195
> 30 years and ≤ 40 years	49	4	53
> 40 years and ≤ 50 years	0	0	0
total	200	48	248

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, **98.1% of the human resources are employed under permanent contracts** (96.1% in 2010) therefore nearly all of the workforce is in fact employed under **guaranteed and permanent contractual forms**. The number of human resources employed under **temporary contracts** and under **professional training apprenticeship contracts**

confirmed its downwards trend, in line with the last two years (see table No. 50). As a rule, **professional training apprenticeship contracts** are transformed, after appropriate training and qualification of the resource, into permanent contracts.

Table No. 50 – ACEA'S EMPLOYEES: CONTRACT TYPES (2009-2011)

(number)	2009			2010			2011		
	men	women	total	men	women	total	men	women	total
permanent workforce	4,316	1,023	5,339	4,148	1,032	5,180	3,970	1,049	5,019
<i>(of which) part-time</i>	18	63	81	17	70	87	21	85	106
staff on temporary contracts	27	15	42	26	12	38	14	5	19
staff on induction contracts	5	3	8	4	3	7	0	0	0
staff on professional training apprenticeship contracts	92	95	187	88	82	170	40	36	76
total	4,440	1,136	5,576	4,266	1,129	5,395	4,024	1,090	5,114

The **turnover rate**, down by one percentage point with respect to 2010, **maintained essential stability** during the three-year period, while the recruitment rate dropped and the leaver rate rose (see table No. 51), on a consistent basis with company

policy for containing recruitment and providing incentive for leavers. This latter figure, for 2011, should also be placed in relation to the winding up of the joint venture established in 2002 between Acea SpA and GdF Suez Energia Italia SpA.

Table No. 51 – TURNOVER, RECRUITMENT, AND LEAVER RATES (2009-2011)

turnover rate			recruitment rate			leaver rate		
2009	2010	2011	2009	2010	2011	2009	2010	2011
9.1%	10%	9%	5.6%	3.3%	1.8%	3.5%	6.7%	7.3%

NB: the turnover rate is the sum of the recruits and the leavers as a ratio of total workforce; the companies to which the figures refer are mainly situated in Lazio; the 2011 figures are broken down below by gender: turnover for women 1.7%, turnover for men 7.3%; recruitment for women 0.5%, recruitment for men 1.3%; women leavers 1.3%, men leavers 6%.

The average age of the employees and the average seniority within the company rose slightly in 2011 with respect to the previous two-year period (see tables No. 52 and 53); the composition of the workforce by age bracket reveals that, as of 31 December 2011, **69.5% of the human resources were**

aged between 36 and 55 and 17.5% 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, also from a professional standpoint, in possession of know-how already formed.

Table No. 52 – ACEA'S EMPLOYEES: AVERAGE AGE OF THE HUMAN RESOURCES (2009-2011)

(years)	2009			2010			2011		
	men	women	total	men	women	total	men	women	total
average age in company	45.4	41.4	44.6	45.6	41.9	44.8	46.2	42.8	45.5
average age of executives	49.6	46.9	49.2	50.1	47.9	49.7	50.2	49.3	50.1
average age of middle managers	46.2	44.6	45.8	46.6	45.4	46.3	47.4	45.8	47.0
average age of white-collarers	45.4	41.1	44.0	45.5	41.4	44.2	46.2	42.4	44.9
average age of blue-collarers	45.0	47.8	45.0	45.3	52.1	45.3	45.7	52.0	45.8

Table No. 53 – ACEA'S EMPLOYEES: AVERAGE LENGTH OF SERVICE OF THE HUMAN RESOURCES (2009-2011)

(years)	2009			2010			2011		
	men	women	total	men	women	total	men	women	total
average length of service in company	12.7	10.5	12.2	12.9	10.9	12.5	13.5	11.8	13.2
average length of service of executives	12.2	16.7	12.9	13.3	17.7	14.0	13.9	19.1	14.8
average length of service of middle managers	13.8	10.1	12.6	14.5	13.9	14.3	15.1	14.3	14.9
average length of service of white-collarers	11.2	18.3	11.2	14.1	10.5	12.9	14.9	11.4	13.7
average length of service of blue-collarers	13.8	13.0	13.6	11.3	17.8	11.3	11.7	15.7	11.8

With regard to the level of education of the human resources, in 2011 there was a lower number of employees in possession of the three types of qualification considered (university degree, high school diploma and other qualifications generally of a lower level). The percentage of employees with **degrees** came to **13.9% of the total workforce** (14.1% in 2010); the percentage of resources with other qualifications by contrast remained stable at 16.8% while the percentage of diploma holders rose 44.1% (42.6% in 2010) (see table No. 55)

The **percentage of women graduates out of total graduates increased in 2011, to 39.9%** (38.5% in 2010).

Table No. 54 – ACEA'S EMPLOYEES: AGE BRACKETS (2011)

	men	women	total
≤ 25 years	33	25	58
> 25 years and ≤ 30 years	199	105	304
> 30 years and ≤ 35 years	363	172	535
> 35 years and ≤ 40 years	533	152	685
> 40 years and ≤ 45 years	773	219	992
> 45 years and ≤ 50 years	756	170	926
> 50 years and ≤ 55 years	801	153	954
> 55 years and ≤ 60 years	496	85	581
> 61 years	70	9	79
total	4,024	1,090	5,114

Table No. 55 – ACEA'S EMPLOYEES: LEVEL OF EDUCATION (2009-2011)

(number)	2009			2010			2011		
	men	women	total	men	women	total	men	women	total
university graduates	462	286	748	469	294	763	428	285	713
high school diploma holders	1,849	515	2,364	1,790	506	2,296	1,756	500	2,256
other qualifications	918	83	1,001	828	76	904	783	75	858
not established (*)	1,211	252	1,463	1,179	253	1,432	1,057	230	1,287
total	4,440	1,136	5,576	4,266	1,129	5,395	4,024	1,090	5,114

(*) with regard to certain Group companies, including 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, the 3 companies deriving from the winding up of the joint venture between Acea and GDF Suez Energia Italia: Acea Energia holding, Acea Energia and Acea Produzione, Acea8cento, Acea Ato 2, Acea Ato 5, LaboratoRI, Marco Polo (Acea branch), A.R.I.A (which absorbed EALL, Terni En.A and Enercombustibili), SAO and, as from 2011, Aquaser.

The Consolidated contract for the electricity sector and the Consolidated contract for the gas-water sector are applied within Acea and, within Avea8cento, an *ad hoc* contract is applied, specifically defined with the pertinent national associations. **All the employees are therefore covered by collective bargaining agreements.**

During 2011, **74.6%** of company employees were **members of trade unions** (the percentage of employees who were members of trade unions in 2010 came to 73.4%); **347** resources were **executives or representatives of trade unions**, **8** of which covering the role of **Workers' Safety Representatives (RLS)**.

The **Consolidated contract for the gas-water sector was renewed** during the year, for a three-year duration, envisaging an increase, equal to Euro 120 formalised, of the table minimums and economic coverage for the period 1 January 2010 - 28 February 2011 (a one-off amount), differentiated for the water sector and the gas sector.

The most significant contents of the contractual review include:

- the acknowledgement of the structural key issues of the water sector and the consequent need to differentiate the economic disbursements intended for the human resources of the two segments (water and gas);
- the updating of the classification system with the introduction of new professional profiles;
- the contractual commitments to redefine the institute of the traceability on a unified contractual basis with harmonisation of the various regulations and related remuneration;
- the establishment at contractual level of supplementary healthcare coverage involving voluntary membership and contributions paid by the companies (the human resources of the companies in the "traditional sphere" of the Group are already covered);
- the protocol for employment protection, such as the use of the instruments associated with welfare support systems

and the solidarity agreements, in the processes for the transformation of the water and gas sectors involving a change in the operator.

In January, the conditions were mature for **resuming industrial relations** between the Acea Group and FILCTEM, FLAEI and UILCEM, following a period of suspension of relations dating back to July 2010; in fact, a specific Memorandum of Agreement was signed which envisaged a process of consultation and negotiation on certain issues:

- the 2011-2013 Strategic Plan and the corporate reorganisation processes;
- the winding up of the joint venture between Acea and Gas de France Suez Energy Italia SpA, with the consequent reorganisation and separation of the activities and human resources;
- the lay-off procedures on the basis of the criteria of proximity to retirement benefits and defining an economic incentive in line with those previously disbursed by the company;
- infra-Group mobility and selective and gradual turn-over;
- the re-absorption within Acea SpA, by means of partial transfer of the business segment, of the activities and human resources employed by Marco Polo (Acea branch);
- the governance system in the handling of trade union talks.

Two aspects in particular were significant: the **spin-off of the joint venture** and the retrocession in two stages of **the business segment** previously entrusted under management to **Marco Polo**.

The winding up of the joint venture between Acea SpA and GdF Suez Energy Italia SpA, with the consequent reorganisation and separation of the activities and human resources, formed the subject matter of complex trade union talks. The trade union organisations FILCTEM, FLAEI and UILCEM did not sign off on the Agreement closing the procedure, by contrast signed by other trade union organisations (USB Lavoro Privato, UGL

Chimici Energia, CISAL Federenergia and Ass. Capi Intermedi e Quadri).

The spin-off became effective in March with the establishment of the company **Acea Produzione**, tasked with the generation of electricity, which received the assets and management activities of the hydroelectric plants and the turbogas plants of Tor di Valle and Montemartini, and the company **Acea Energia**, tasked with the sale of electricity and gas. Both the companies are subsidiaries of the Parent Company Acea Energia Holding and all are wholly-owned by Acea SpA.

The procedure for the transfer within Acea SpA of the "Civil Works" business segment and the related resources previously employed by Marco Polo concluded positively, with the Memorandum of Agreement signed by all the trade union organisations, in accordance with the process for the concentration within the Parent Company of the activities associated with facility management.

The resumption of trade union talks also made it possible to conclude two important agreements, one relating to the Acea SpA Group companies, Acea Distribuzione, Acea Reti e Servizi Energetici, Acea Ato 2, Acea Energia Holding, Acea Energia, Acea Produzione, LaboratoRI and Marco Polo - Acea branch and the other, similar in content albeit different with regard to amounts, for the company Acea8cento, pertaining to the extraordinary incentive for resources which was paid out in February.

A number of the **agreements reached during the year** concerned matters of primary interest for the human resources such as **the mobility plans, the detaxation of the portion of variable remuneration** and the changeover to the Consolidated contract for the gas-water sector for the staff of Aquaser.

In relation to the launch of the lay-off procedures (Articles 4 and 24 of Italian Law No. 223/91) in Acea SpA, Acea Distribuzione and Acea Ato 2, an agreement was signed in May, common to all the companies concerned, relating to the criteria for establishing the incentive for out-going staff complying with the lay-off plans. Furthermore, following the substantial legislative measures regarding pensions, the company once again met with the trade union organisations FILCTEM, FLAEI and UILCEM defining an additional extension of the coverage envisaged in the incentive devices associated with the lay-off procedures.

Identical procedures, both in terms of criteria and incentive and safeguard mechanisms, were launched within Acea Energia and Acea Produzione as well; the positive conclusion of the negotiations made it possible to implement the corresponding plans.

Downstream from the consolidation of the legislation relating

to facilitated rates applicable to the salary components attributable to increases in productivity, innovation, efficiency, etc., an agreement was entered into valid for the entire Group for the "detaxation" of the portions of variable remuneration relating to the ends described above, to the considerable economic advantage of the workers concerned.

In conclusion, with a view to uniformity and standardisation of the contractual remuneration of human resources, in December the Consolidated contract for the gas-water sector was applied to the employees of Aquaser.

With regard to **labour organisation** aspects, the following agreements were entered into:

- with regard to **Acea Distribuzione**, the period of organisational consultation was completed also leading to the out-dating of the "hazardous substances" indemnity allocated to staff employed at the unit involved in the management of cemetery lighting (GIP Verano), and an agreement was signed relating to the methods of compensation for services rendered by shift workers working on public holidays falling during the week;
- with regard to **Acea Ato 2**, an extension was signed, for the whole of 2011, to the agreement relating to the remuneration of shift workers who work on public holidays falling during the week; the negotiations concluded with regard to the reorganisation of the shift work for the External Primary System - Peschiera Springs and agreements were entered into with regard to working hours, scheduled overtime and the structuring of shifts, relating to a number of plants managed;
- with regard to the **Environment area**, trade union negotiations took place relating to the **corporate merger transaction** for the absorption within A.R.I.A. of Terni En.A, EALL and Enercombustili; an agreement was signed relating to the remuneration-related and legislative aspects to be applied to the resources of the companies in the traditional boundaries (Acea Ato 2, Acea Distribuzione and Marco Polo), seconded out for technical-organisation purposes to the S. Vittore del Lazio plant (former EALL).

This latter agreement falls within the sphere of the processes for optimising the use of resources, of a collective nature and in terms of infra-Group mobility, set up so as to deal with and resolve the Group's organisational- production-related needs.

With regard to the **disclosure notice to employees** regarding possible corporate restructuring and organisational changes - such as some of those indicated above - capable of effecting

the employment relationship, it is appropriate to specify that the company adopts different conduct depending on the circumstances 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 takes steps to publish it on the notice-board and corporate Intranet. As a rule, the trade union negotiations indicated above 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.) said individual is sent an *ad hoc* 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 disposals, mergers, buyouts, transfers of business segments): in cases of corporate transformation, the notice sent to the employees are disciplined by current legislation⁹¹ which envisages disclosure obligations vis-à-vis the workers' representatives, so as to permit them to check the industrial justification for the transactions, the correct formalities of the process as well as the repercussions on the employment relationships.

Box – Disputes with Employees and Trade Unions

The types of dispute furthered in 2011 by human resources vis-à-vis Acea mainly concern the following aspects: grade review, wage/salary differences, indemnities not received (e.g. shift pay), demotion and mobbing.

The consistency of these disputes remained unchanged both with regard to number, 130 cases, and type. The inclusion of new cases of dispute during 2011, 32 positions, was stable with respect to the previous year (30 in 2010).

During the first quarter of 2011, a petition was served for alleged anti-trade union conduct as per Article 28 of Italian Law No. 300/70, by the trade union USB Lavoro Privato, containing the request for the appointment of its own Workers' Safety Representative (RLS); in the first instance, the Employment Tribunal declared that this right existed. As things stand, the decision was appealed against by Acea and the second instance sentence is pending.

The following were ruled on in a favourable sense for Acea: in the first instance, the petition presented by a group of employees (103 workers) against the agreement signed on 18 December 2008, regarding the calculation of the results' bonus, the increase in luncheon vouchers, the payment of the tariff concessions envisaged for employees; along with, under appeal, the disputes launched by the employees laid off following the non-voluntary lay-off procedures with programmes implemented in 2004 and at the end of December 2006.

By contrast, the dispute with the workers of the former COS (now Almaviva Contact) and B2WIN, relating to the phenomenon of alleged intervention of workforce continued; transactions have already been reached with a number of plaintiffs who have ceased to take action, while a further attempt at mediation, not yet finalised, is underway with another group.

Again involving a positive outcome for Acea, the individual lawsuits brought by a number of employees from various Group companies were ruled on in first instance, in April; these suits were brought against the regulations as per the corporate agreement dated 27 March 2007, so-called "orario fiduciario" for executive staff, involving acknowledgement of the legitimacy of the agreement and the related application.

In conclusion, by means of the signing of a specific Memorandum of Agreement concluded with all the organisations with which Acea has trade union talks, a dispute was settled on a transactional basis relating to the remuneration of electricity shift workers which arose due to the existence of different methods of remuneration for the ordinary services rendered on public holidays falling on week days by shift and semi-shift workers, one attributable to the electricity sector legislation for former municipal companies, the other to that introduced by the Consolidated contract for the electricity sector, applied within the Group just to resources originating from the incorporation of the business segment of Distribuzione Metropolitana by Enel following specific transitory agreements.

⁹¹ 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.

Diversity and Equal opportunities

The boundaries

The information and data presented in Diversity and 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, Acea Ato 5, Umbra Acque, LaboratoRI, Acea Gori Servizi, Crea Gestioni (which absorbed Crea Partecipazioni and Acea Rieti), Gesesa, Sogea, Lunigiana, Solemme, A.R.I.A. (which absorbed EALL, Terni En.A and Enercombustibili), SAO and, as from 2011, Aquaser.

Diversity

Acea hires and integrates human resources from protected categories in the company (differently-abled, orphans, etc), who are also guaranteed thanks to the activities of the Associazione Nazionale Mutilati e Invalidi Civili (ANMIC – National Association for Disabled and Invalid Civilians), support, assistance and technical tools to help them carry out their duties. **Human recourses in protected categories** amounted to **275 resources** (170 men and 105 women) as of 31 December 2011, in compliance with the matters established by legislation (Italian Law 68/99).

Equal opportunities

The **Equal Opportunities Commission (CPO)** has operated within Acea since 1991 with the task of furthering and supporting policies and action for overcoming all types of inequality or impediment to the exercise of the rights of the individual, direct or indirect discrimination with regard to women and all the professional categories, 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, Acea has drafted the two-yearly report (2010-2011) on gender 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

For the three-year period under review, the figures relating to **female presence within Acea** disclose a constant rise in the percentage of women out of total human resources and within each professional category (see table No. 56). In 2011, the figures relating to the presence of women middle managers were particularly positive (+2.5% with respect to 2010), along with graduates (+1.5% compared with 2010) and those forming part of corporate governance bodies (+1.3% with respect to 2010).

Once again in 2011, responsibility for the governance of a corporate Division - Investor Relations - was entrusted to a woman executive.

Table No. 56 – WOMEN WITHIN ACEA (2009-2011)

	2009	2010	2011
percentage of women out of total workforce	20.4%	20.9%	21.3%
percentage of women out of total members of corporate governance bodies (*)	8.7%	6.7%	8.0%
percentage of women executives out of total executives	15.8%	16.2%	17.4%
percentage of women middle managers out of total middle managers	24.8%	24.9%	27.4%
percentage of women graduates out of total graduates	38.2%	38.5%	40.0%

(*) *Boards of Directors, Boards of Statutory Auditors and Supervisory Bodies of the companies included within the reporting boundaries.*

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, the 3 companies deriving from the winding up of the joint venture between Acea and GdF Suez Energia Italia: Acea Energia holding, Acea Energia and Acea Produzione

Total hours worked during the year **decreased** following the drop registered in both ordinary hours and overtime (see table No. 57); the percentage of overtime out of total hours worked

increased slightly for men, passing from 6.6% in 2010 to 6.9% in 2011, while the equivalent female figure dropped from 2.1% in 2010 to 1.9% in 2011.

Table No. 57 – ACEA'S EMPLOYEES: WORKING HOURS (2009-2011)

	2009			2010			2011		
	men	women	total	men	women	total	men	women	total
ordinary hours worked	5,773,742	1,409,318	7,183,060	5,808,919	1,456,624	7,265,543	5,451,445	1,386,671	6,838,116
overtime worked	437,609	32,860	470,469	415,088	31,519	446,607	407,815	27,616	435,431
total hours worked	6,211,351	1,442,178	7,653,529	6,224,007	1,488,143	7,712,150	5,859,260	1,414,287	7,273,547

The **total number of days of absence was more or less stable** with respect to 2010 (-0.15%). Absences due to the use of trade union leave and sundry leave of absence decreased, while absences for illness and maternity/paternity leave

increased slightly; those for strike action rose considerably having been affected by the tense climate, in part of the year, with regard to trade union relations (see the section *Industrial relations*).

Table No. 58 – ACEA'S EMPLOYEES: DAYS OF ABSENCE (2009-2011)

	2009			2010			2011		
	men	women	total	men	women	total	men	women	total
absence due to illness	24,958	10,970	35,928	24,559	11,868	36,427	24,736	11,869	36,605
absence due to maternity (pregnancy and post partum)/paternity leave	761	8,767	9,528	650	9,678	10,328	876	9,576	10,452
absence due to strike action	49	12	61	430	93	523	1,057	264	1,321
trade union leave	5,891	901	6,792	6,531	1,068	7,599	5,665	1,012	6,677
other leaves of absence	2,321	1,781	4,102	3,197	1,693	4,890	3,141	1,803	4,944
sundry leaves of absence (study, health, mourning and generic reasons)	10,423	4,999	15,422	11,289	4,900	16,189	10,370	4,594	14,964
other reasons (*)	2,631	667	3,298	2,158	538	2,696	2,798	773	3,571
total days of absence (excluding holiday entitlement and accident & injury)	47,034	28,097	75,131	48,814	29,838	78,652	48,643	29,891	78,534

(*) 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 2011 concerned **2.1% 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 (4.10 p.m. and 5.20 p.m.) envisaged for first and second 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 Protection 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, LaboratoRI, Acea Energia holding, Acea Energia e Acea Produzione, Umbria Energy, Acea8cento, Marco Polo (Acea branch), Acque, Acque Servizi, Acque Industriali, Ingegnerie Toscane, Publiacqua, Acquedotto del Fiora, Crea Gestioni Srl (which absorbed Crea Partecipazioni and Acea Rieti), GEAL, Gesesa, Gori, Sogea, Umbra Acque, Aquaser, Kyklos, Solemme, A.R.I.A. (which absorbed EALL, Terni En.A and Enercombustibili) and SAO. With respect to the previous edition, the companies Lunigiana and Azga are no longer included in the boundaries, as they have left the Group.

The handling of safety, in compliance with current legislation (Italian Legislative Decree No. 81/08 as amended or added to), is carried out by each Group company undertaking direct responsibility. The Parent Company's Safety and Protection Division has the task of ensuring the constant monitoring of the companies with regard to application of the guidelines, the policies issued and alignment with current legislation.

In order to aid the Group companies to handle safety, the Safety and Protection Division implemented a new safety control model in 2011: "Business Control", supported via IT. The system, designed in 2010, permits each company to check the level of legislative compliance and efficiently handle the mandatory documentation, monitor the deadlines, support the handling of any non-compliances detected, etc..

The companies have been assessed with regard to **146 safety indicators**, grouped into **14 theme-based macro-areas**, each identified with an importance (on a scale of 1 to 10) in line with the importance of the subject matter in the legislative sphere: Safety in the workplace policy, General organisation of the system for safety in the workplace, Risk Assessment Documentation, Documentation for the maintenance of

properties/work premises, Emergency handling, Maintenance of the workplaces, Information, training, etc., Healthcare Monitoring, Accident Management, Individual protection gear, Contracted work, Operating/management control, Fines, Safety budget. The data, gained by means of self-assessment questionnaires and via encounters with the Prevention and Protection Service Managers, has been processed at individual company level and at Group level and compared with the values of each macro-area.

In 2011, also **Acea SpA** obtained recognition of the compliance of its Health and safety in the workplace management system (Sgsl) with the **OHSAS 18001:2007 standard**. There are 12⁹² Group companies in which a certified Sgsls has been implemented, including **Acea Energia holding, Acea Energia** and **Acea Produzione**, and the three companies deriving from the winding up of the joint venture between Acea SpA and Gas de France Suez Energy Italia SpA. The organisation of the working processes representing the finishing post of a responsible decision made by the companies within the sphere of workers' health and safety.

⁹² AceaElectrabel Trading in fact ceased its operations further to the winding-up of the JV.

With regard to the process for assessing **the risks for workers** and the **monitoring of accidents**, each company takes steps in this connection, 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 2011, **the figures relating to accidents disclosed lower values with respect to the previous two years**: on the whole during the year, **286 accidents** were reported, **65** of which **in itinere** (in other words while travelling to/from work/home), which led to **10,722 days of absence due to accidents**. The figure relating to the frequency index also

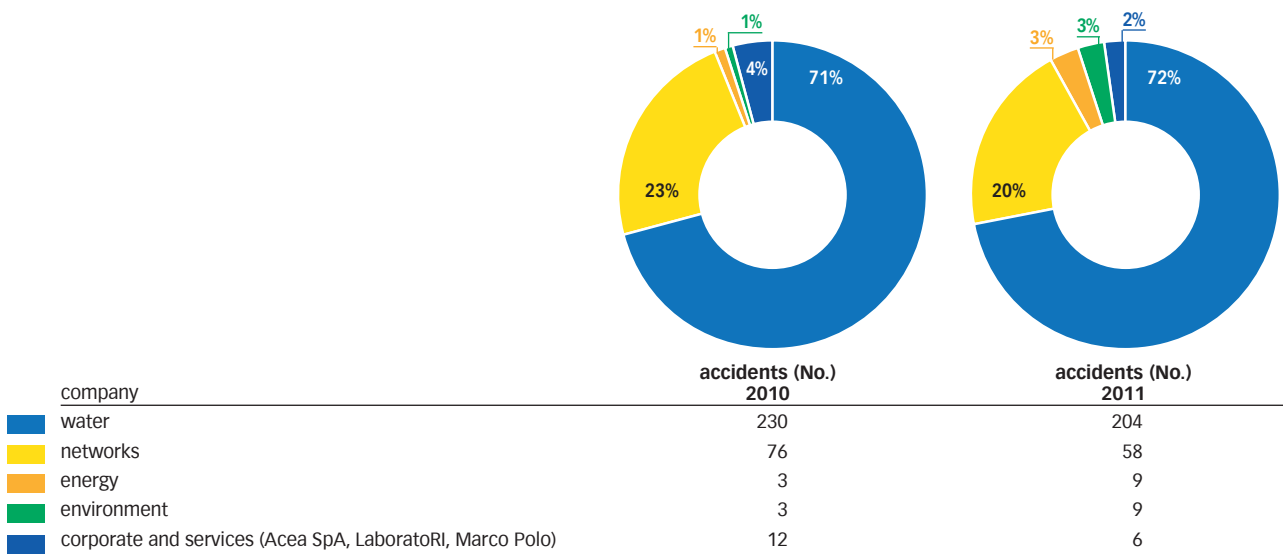
disclosed a lower value with respect to 2010, while the severity index remained stable.

With regard to **the breakdown per type and gender** of accident, during 2011, 269 accident events (equal to 94% of the total) involved male resources, mainly blue-collar, and 17 (equal to 5.9%) female workers, mostly white-collar/administrative staff.

Observing **the breakdown of accidents by company** grouped together by business area, we can see a **decrease in accidents**, with respect to 2010, **in the water and networks areas** (see chart No. 26), even if the majority of accidents continue to occur in the two operating companies Acea Ato 2 (51 accidents) and Acea Distribuzione (57 accidents), attributable to the same.

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.

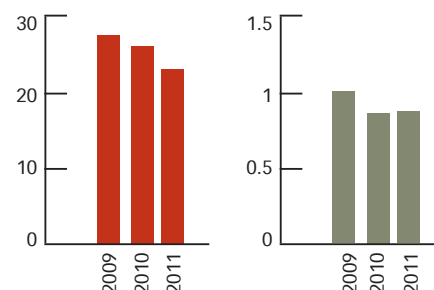
Chart No. 26 - BREAKDOWN OF ACCIDENTS BY BUSINESS AREA (2010-11)



NB: in 2011, Acea8cento was calculated within the energy area rather than the corporate and services area. The companies Ingegnerie Toscane and Crea Gestioni (water), Acea Illuminazione (networks), Acea Energia Holding and Umbra Energy (energy), A.R.I.A. and Kyklos (waste management), and Marco Polo (services) did not report any accidents during the year.

Chart No. 27 – INDUSTRIAL ACCIDENTS AND FREQUENCY AND SEVERITY INDEXES (2009-2011)

	2009	2010	2011
accidents (No.)	356	324	286
total days of absence	13,179	10,627	10,722
hours worked	12,865,478	12,350,921	(*) 12,351,212
frequency index (FI) (No. acc. x 1,000,000/working hours)	27.67	26.23	23.16
severity index (SI) (days absence x 1,000/working hours)	1.02	0.86	0.87



NB: the figures relating to 2009 have been recalculated in light of the failure by INAIL to acknowledge the death of an employee as an industrial accident.
 (*) the figure is estimated for the companies Solemme, Publicacqua, Gesesa, Acquedotto del Fiora and Ingegnerie Toscane.

Raising awareness of the human resources with regard to safety aspects is pursued by means of the **disclosure** of procedures, documents and legislative updates **on the company intranet** and the provision of specific **training courses**. Beyond regulatory compliance, in fact, the corporate

aim is to more fully develop awareness and a growing and widespread safety culture as an integral part of the corporate 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, the 3 companies deriving from the winding up of the joint venture between Acea and GdF Suez Energia Italia: Acea Energia holding, Acea Energia and Acea Produzione, Acea8cento, Marco Polo (Acea branch), Aquaser, Solemme, A.R.I.A (which absorbed EALL, Terni En.A and Enercombustibili), SAO and, as from 2011, Acea Servizi Acqua.

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, if necessary drawing up the relative health monitoring plan.

During 2011, **1,904 check-ups** were carried out; the relative costs⁹³ amounted to **around Euro 173 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.

⁹³ 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 and Acea Produzione.

In Acea, the plans for developing and capitalizing on company employees are defined on the basis of a system for the assignment of objectives that comply with corporate policies. This system involves preliminarily assessing organisational positions, identifying the skill areas and responsibilities of workers, monitoring performances and recognising and managing the needs of employees in terms of professional development and remuneration.

The company, in order guarantee the suitable filling of professional positions and roles, after analysing company resources in-house assesses the appropriateness of transferring resources within the group or selecting recruits from the outside market; the latter is adopted for profiles with specific skills not available in-house.

Remuneration

Employees' salaries (excluding executives and top management) derive from the application of the related National Collective Labour Agreements. Average gross remuneration per head by role disbursed during 2011 disclosed increases when compared with 2010, for all the categories: 3.2% for middle managers, 1.7% for blue-collar workers, and 1.6% for white-collar workers.

Total average gross remuneration per head came to Euro 39.1 thousand, compared with Euro 38.3 thousand in 2010 (+2%); also including the executives, it comes to Euro 41.7 thousand.

Table No. 59 – AVERAGE GROSS REMUNERATION BY ROLE (2010-2011)

(in thousands of Euro)	middle management	change%	white collar workers	change%	blue collar workers	change%	total	change%
2010	61.4	3.2%	37.2	1.6%	35.2	1.7%	33.3	2.0%
2011	63.4		37.8		35.8		39.1	

NB: the figures regarding 2010 remuneration have been adjusted for recalculation.

Analysing from a perspective of gender 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 2011 this ratio was equal to 90.2% for female staff and 78.9% 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 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, from 2010 until 2012, for the Chief Executive Officer and senior management of the company, with reference to the Total shareholder return and the performance

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*⁹⁴.

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 of the fixed and/or variable elements of the remuneration 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 and efficiency, and quality delivered and perceived (in fact, an indicator regarding the level of customer satisfaction is also taken into account).

During 2011, the guidelines were defined for the meritocratic policy and the MBO system, based on the development of the human resources on a consistent basis with the achievement of the assigned objectives, the individual assessment of the performance and the assessment of the distinct skills.

Specifically, the bonus system adopted for **executives and middle-management**, as well as **senior 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;
- **LTIP** (Long Term Incentive Plan) **2010-2012**: 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 Salary Committee. 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 employees taken on before 9 July 1996), benefits received by employees via the Staff Recreational Association (CRA), supplementary health insurance - UNIPOL, 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. As of 31 December 2011 the amount of the balance sheet liabilities for **employee leaving indemnities and other defined-benefit plans** amounted to Euro 104.8 million, presenting a decrease of Euro 6 million with respect to the Euro 110.8 million in 2010. This item includes the increase of Euro 3.4 million for the employee leaving indemnity (TFR) and the reduction of Euro 3.9 million for tariff concessions, consequent to the exit of staff during the year due to the implementation of the voluntary lay-off procedures of Acea SpA, Acea Ato 2 and Acea Distribuzione.

Defined-contribution pension funds

Two supplementary pension funds are envisaged for Acea employees⁹⁵, **Previndai** and **Pegaso**, respectively for executives and resources employed under the CCNLs signed by Confservizi for public utility service companies.

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 and UILCEM-UIL which established the same.

Group **employees**⁹⁶ who were **members of the Pegaso fund** in 2011 came to **3,109**, stable with respect to last year (down 0.5%), with an incidence on the total of Pegaso members in Italy (30,099 as of 31 December 2011) of around 10%. The

⁹⁴ The *Remuneration Report*, which in 2011 is independent, is available on-line on the company website. Information on the fees of the members of Acea SpA's Board of Directors and senior management can also be found in a specific section of the consolidated financial statements.

⁹⁵ A residual number of employees (less than 5) are members of the contractual supplementary pension funds **Cometa** (engineering and similar sector) and **Fonte** (tertiary distribution and services sector).

⁹⁶ The figure refers to employees of the companies: Acea SpA, Acea8cento, Acea Ato 2, Acea Ato 5, Acea Distribuzione, Acea Reti e Servizi Energetici, Acea Energia holding, Acea Energia, Acea Produzione, LaboratoRI, Crea Gestioni, Sogea, Gesesa, Umbra Acque, Solemme, Marco Polo, AceaGori Servizi, A.R.I.A, SAO, Ecogena (the number shown includes the employees of GdF Suez Energy Management and GdF Suez Produzione for six months in 2011).

Group companies who have the highest number of members are Acea Ato 2 (981 members), Acea Distribuzione (929 members) and Acea SpA (294 members).

During the year, Acea transferred around Euro 4.6 million in employee leaving indemnities to the Pegaso fund and paid over Euro 1.28 million (+3.2% on 2010) as a supplementary company contribution. The net assets of the Pegaso fund intended for benefits reached Euro 470 million in 2011 (Euro 408 million in 2010), an increase of 15.2%. The **Balanced** and **Guaranteed** segments closed positively at 1.39% and 0.47%, respectively, while the **Dynamic** segment disclosed a loss of 1.47%. The return on leaving indemnities (TFR), used as a benchmark, came to 3.47% in 2011.

Table No. 60 – RETURN ON THE VALUE OF THE UNITS OF THE PEGASO SEGMENTS AND THE EMPLOYEE LEAVING INDEMNITY AS OF 31 DECEMBER 2011

type of investment	Pegaso fund segment return	leaving indemnity return
guaranteed	+0.47%	
balanced	+1.39%	+3.47%
dynamic	-1.47%	

Source: Pegaso Circular No. 4/2012.

Staff assessment systems

During the year, the system for the assessment of staff performances also extended to organisational conduct was consolidated; it is fully integrated with the bonus system since the result of the assessment forms part of both the staff development programmes and the variable incentive systems. The projects concerning staff development plans implemented during the year included the following:

- the **Management Values System**: launched within Acea Distribuzione and addressing executive and middle managers; the former have been involved in individual coaching sessions, focused on the enhancement of the ability to manage co-workers - People Management - according to the layout of the values road map, a map of organisation conduct aspiring to a values and ethical model; the latter were included in a plan for flanking and tutoring co-workers aimed at transferring their knowledge and expertise on work management techniques;
- the **“Managers’ project”**: launched in 2009 and aimed at the managerial development of the operating managers of Acea Distribuzione which aims to strengthen the motivation and sense of belonging to the company of the parties involved, consequently improving performances as well as career

guidance. For such purposes, in 2011 specific development plans were defined for each manager who, aided by a professional coach, worked on targeted aspects of its own personality functional for the improvement of the professional performances;

- the **Skills Audit**: achieved, as from last year, care of Acea Ato 2 by means of the mapping of the existing skills and the creation of an integrated system between professional profiles traced and training profiles so as to draw up coherent development plans. The instrument was perfected even further during 2011, with respect to the consistency between the skill profiles and the training profiles, with the aim of improving the efficacy of the training courses.

Training and development of the human resources

The ability of the company to act competitively is strictly linked to the quality and professionalism of its **“human capital”** which must be appropriately trained. 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 - intermediate and final - 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).

Acea considers training activities for employees to be fundamental for developing company talent, via refresher courses for technical-professional skills and the acquisition of transversal and conduct-related skills necessary for the correct handling of the co-workers and the work team.

Besides the traditional training methods, **class-room based** teacher up front, the company resorts to the use of an **e-learning** platform which makes it possible to provide flexible training courses, without particular space-time restrictions.

The holding company’s **Human Resources and Organisation Division defines policies, guidelines and training channels for the main Group companies.**

The individual operating companies take steps to train their resources with respect to the **legislative fulfilments** (protection of privacy and safety in the workplace), the **technical-specialist skills, administrative-managerial training and apprenticeship training**; with regard to the latter, the Parent Company has defined guidelines aimed at the planning of consistent training plans.

By contrast, the Human Resources and Organisation Division sees to:

- for Acea SpA and the Group companies, **managerial training**, defining training courses addressing top and middle management on a priority basis, with the purpose of consolidating the abilities to manage co-workers and enhancing the transversal skills, and **induction training**, aimed at transmitting initial knowledge of the Group's organisational structure to new recruits (mission, procedures, value codes, Italian Legislative Decree No.

231/01) and the sectors in which it operates (water, energy and environment), also by means of visits to some of the production plants.

- only for Acea SpA, the planning and provision of the mandatory **training** envisaged, **technical-specialist** training and that **addressing apprentices**, for the achievement of professional qualifications.

In order to more effectively handle and monitor the training process, Acea SpA uses a dedicated computerised information system (see box).

Box – Computerisation of the Group training process

The Parent Company currently uses an IT system which makes it possible to input the data relating to training courses provided, automatically update the training curricula of the employees and extract specific monitoring reports.

The objective which needs to be achieved imminently is to extend access to the system also to the operating companies which the Parent Company supports in the training processes.

The implementation of a module dedicated to analysis of the training needs is also envisaged, which will allow the managers - first when working in tandem and then independently - to access the system and directly register the training needs for themselves and the team of co-workers.

In order to achieve its training objectives, during 2011 Acea SpA planned and carried out training action intended for the entire company aimed at consolidating the professional skills of the internal resources, concentrating on the development of the fundamental expertise for the achievement of the company's strategic and organisational objectives, also increasing the sense of belonging to the organisation and the motivation of the human resources. The claim chosen to identify this plan, on a consistent basis with the previous one, is **COME IN CONoscenza MEtodo INTEgrazione**.

All the training courses have been created by means of the enrolment of the participants in **catalogue courses** (provided by specialised partners, aimed at increasing the skills of the individual in the role), **training initiatives achieved in-house** (with the contribution of outside partners if the need was transversal to several structures or envisaged a high number of participants) and **theme-based workshops** provided thanks to the collaboration and professionalism of the Group employees. Some of the **training measures** carried out within the Group companies during 2011 are listed below:

- **training for telephone operators** of Acea8cento, aimed at adapting the skills of the operators to the extension of the commercial services handled by the company (water sector, protected service, free market and gas);
- **customer orientation** training in Acea Ato 5;
- the training project on the **Health and safety in the workplace management system** (Sgsl) linked to the achievement by certain Group companies of OHSAS

18001:2007 certification (see also *Protection of health and safety in the workplace*)

- the continuation of the **Volta project**, intended for Acea Distribuzione staff, relating to the implementation of a new platform for the flexible handling of the company's information systems and the customer databases;
- **training** on the obligation to adopt the **waste traceability system** (SISTR) pursuant to Italian Ministerial Decree No. 52/2011, on the **protection of personal details**, in accordance with Italian Legislative Decree No. 196/2003, on the **administrative liability of organisations** as per Italian Legislative Decree No. 231/2001, focused on **anti-corruption procedures, and on safety** pursuant to Italian Legislative Decree No. 81/2008 care of various Group companies;
- **managerial training**, focused on Change Management and addressing a pilot target of Group middle managers and executives who operate within the sphere of human resources, intended to prepare the bases for the new organisational model, identifying work groups tasked with indicating the guidelines, processes and procedures to be adopted at Group level in the management of the life cycle of the human resource, defining common reference criteria for the identification and handling of the scheduled training initiatives (selection, development, handling of the performances, training, internal mobility/succession plan);
- **language training**, achieved using "one to one" and e-learning methods;
- **apprentice training** (see related box).

Box – Apprentice training

The process addressing apprentices envisages the provision of modules dedicated to:

- the acquisition of practical skills by means of on-the-job training and the support of a company tutor;
- basic training (development of relational skills, company organisation, discipline of the work relationship, safety in the workplace, etc.), sector training (knowledge relating to the company operating sectors with a view to the supply chain) and technical-professional training (concerning the role).

The holding company has implemented guidelines, already shared with the companies in 2010, also ensuring the planning and provision of the training measures for apprentices on the workforce of the Parent Company and for the Group companies which have requested such.

During 2011, **Acea Ato 2** completed the “**Skills Audit**” project, which envisaged the structured and computerised recognition of the professional skills present within the company for a more efficient handling of the human resources in terms of training, vertical and horizontal mobility, etc.

The company also continued with the implementation of courses addressing management staff with co-ordination roles, aimed at improving the **organisational climate** and the **team building**. A training process concluded care of **LaboratoRI for Safety Co-ordinators**, launched in 2010, and the same course was launched for site Supervisors/Assistants; steps were also taken to provide the Prevention and Protection Service Managers (RSPP) with training associated with the **Safety Management System** (Sgsl), OHSAS 18001:2007 certified at the end of 2010; in conclusion, specific training was achieved on the biological, chemical and cancerogenic risks.

Furthermore, via training activities, Acea pays attention to the **disclosure of the ethical principles which guide the business approach**: units dedicated to the corporate mission,

the value codes and corporate social responsibility are held within the sphere of the induction training for new recruits and knowledge of these topics is encouraged by the presence of dedicated sections both on the intranet and the institutional website.

The company’s membership of interprofessional bodies for on-going training, for example Fondimpresa, is an additional tool for increasing the skills and expertise of company resources. During the year, a number of resources benefited from specific training initiatives, taking part in seminars and study days on the new regulations regarding waste (SISTRI) and on the company organisational models.

Throughout 2011, a total of **569 training courses** were provided in **1,156 editions**. A total number of **participations** was recorded equating to **9,449**, involving **4,684 participants**; **training hours per head⁹⁷** came to **15.1**.

Costs incurred for providing the courses, excluding didactic planning and setting up the areas in which courses were held, amounted to around **Euro 341,975** (see table No. 61).

Table No. 61 – TRAINING COURSES AND COSTS (2010-2011)

type of course	No. of courses		No. of edition		No. of participations (*)		No. of participants (**)		costs (Euro)	
	2010	2011	2010	2011	2010	2011	2011	2010	2011 (***)	
IT	46	26	54	75	550	646	452	40,859	23,976	
induction of new recruits (****)	82	46	100	29	732	402	90	18,903	17,020	
languages	14	3	11	14	162	22	18	43,970	12,332	
technical-specialist	300	237	557	546	3,181	4,229	1,528	216,928	108,941	
managerial	19	6	35	7	857	131	105	175,197	71,191	
administrative-operational (****)	6	26	11	177	82	1,306	1,177	0	31,754	
safety, privacy and environment	87	225	283	308	5,796	2,713	1,314	120,622	76,761	
total	554	569	1,051	1,156	11,360	9,449	4,684	616,479	341,975	

NB: the figures relating to 2011 include the companies Solemme, A.R.I.A., SAO and Aquaser.

(*) “participations” means that the employee is reckoned each time he takes part in a training course within the sphere of the same type of training

(**) “participants” means that the employee is reckoned just once within the sphere of the same type of training. It has been possible to avail of the figure as from 2011. With regard to SAO and A.R.I.A., this item is estimated while that relating to LaboratoRI is lacking.

(***) the item relating to training costs does not contain the item concerning the company SAO.

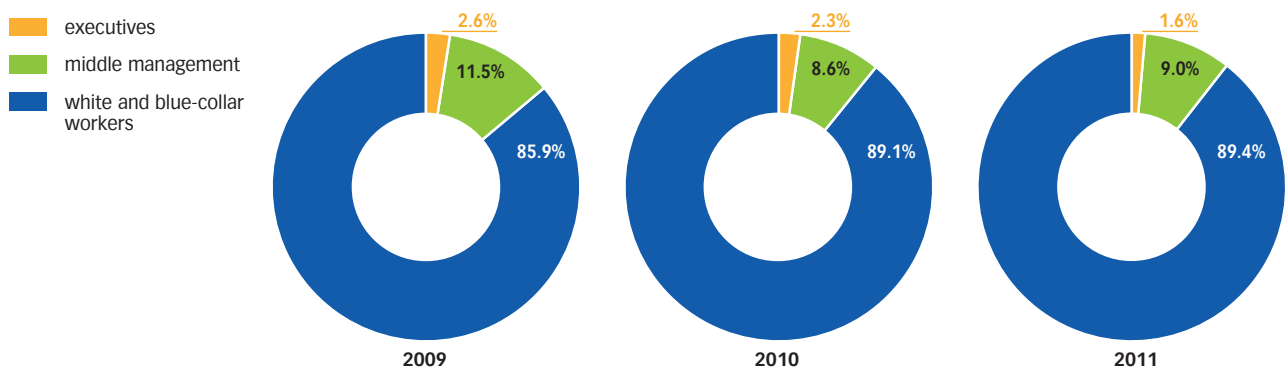
(****) training provided for new recruits and administrative-operational training is carried out mainly or exclusively via the teaching resources within the Group.

⁹⁷ The indicator has been created by placing in relation the number of hours attended (70,898 in 2011) and the total number of participants (4,684 in 2011).

With reference to **female human resources**,⁹⁸ participations in training courses amounted to **1,796** (19% of the total) and **woman participants** numbered **865** (18.5% of the total); in conclusion, training hours provided to female resources came to 17,137, down with respect to last year (12,041 hours in 2010).

During 2011, Acea defined the Job Posting guidelines, an internal recruitment process aimed at improving courses for the growth and development of the professional skills already present in-house (see related box).

Chart No. 28 – BREAKDOWN OF TRAINING HOURS BY ROLE (2009-2011)



NB: In 2011, training hours by role for the companies A.R.I.A. and SAO are the result of estimation.

Box – Job Posting within Acea

Job Posting is the infraGroup mobility project, launched by Acea SpA, in order to transform the internal labour market and make it accessible, transparent and common to all the employees; it is an opportunity for the professional development of the resources present in-house, who can offer themselves as candidates to cover the positions open within the Group, undertaking a professional path compatible with their training and the company's needs.

The project intends:

- to encourage a culture of integration between the various business segments, at the same time developing the individuals specificities;
- to further the sharing of the know-how acquired and facilitate the development of new professional skills, increasing the motivation of the human resources.

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, taking part in career guidance days for studies organised by the universities in the area it operates in, 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*).

During 2011, Acea supported a number of training projects, university Masters' courses and post-degree training by means

of loans and professional contributions (teaching activities, work experiences, training courses, 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 Corporate Citizenship** – integrated social responsibility strategies (Fondazione per la cittadinanza attiva), offering two scholarships to cover registration fees, intended for the offspring of Acea employees by way of priority;

⁹⁸ The 2011 figures for the companies A.R.I.A. and SAO are the result of estimation.

- the **Masters' course in City Utility – Management and development of supplies and technological services with territorial infrastructural networks**, organised by Cassino University, involving Acea teaching staff.

Group companies activated a total of **6 professional internships for students of high schools, universities or new graduates** and **31 training work experiences**. Specifically, Acea Ato 5 launched a project for the induction in-house of recent graduates which, by means of entering into agreements with the Universities of Rome, Cassino and Aquila, led to the activation of **20 training work experiences** addressing young graduates, in engineering, biology, economics and law.

In conclusion, as is by now customary for some years, within the sphere of the **school-work alternation project**, Acea Ato 2 held 4 internships, hosting 54 work experience students from three Roman technical institutes, 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. Confirming the effective opportunities offered by interaction between the company and university sphere, during the year Acea permanently took on 23 youngsters previously under collaboration, project or work experience contracts.

Internal communication

Acea communicates **with its employees** via the company

intranet portal, the company informative publication **AceaMagazine** and a **weekly newsletter**.

During 2011, the house organ **AceaMagazine** dealt with aspects linked to the changes which have taken place in-house, including the new business plan, the new macro-structure and the new logo as well as matters of interest for the core business, sustainability and the environment. The weekly **newsletter** is by contrast an instrument for more rapid consultation, linked to current affairs (see *Customers and the community - Communication, events and solidarity*).

Intranet is the company portal which conveys the information targeted at employees and where it is possible to find the most important information on the companies and the Group's human resources and consult the official corporate documents (financial statements, value codes, policies, regulations, etc.), the company procedures, the organisational provisions, the daily press review, the press releases and numerous **detailed sections** (for example on Safety, Quality, Training, IT, reference legislation such as Italian Legislative Decree No. 231/01 etc.) which are implemented and updated. In 2011, the company portal was enhanced by a section entitled **Profile**, a job posting 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.

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) during 2011 reached **4,583 individuals** including executives (4,546 in 2010), and numerous requests to use the various services offered were made, thanks to their quality and the contained costs involved (see table No. 62). During the month of June, elections were held for the renewal of the statutory offices of the Staff Recreational Association (CRA); around 85% of Group resources took part expressing their preference and bearing witness to the interest in the correct functioning of the recreational association.

As occurs each year, the CRA followed the activities of the **company crèche**, open to the children of both employees and residents of the 1st Municipality, which in 2011 looked after **42** children in the first half of the year and **38** in the second half. During the year, the CRA handled dealings with the insurance company which guarantees supplementary **healthcare assistance for company employees and their dependent family members**, and made a number of scholarships available to employees' children, high school and university students, who have distinguished themselves through the results of their studies. The agreement with a specialised company was also renewed, for the provisions of dentistry services free-of-charge to employees and their dependent family members and the agreement with a financial institution disbursing personal loans was re-proposed, along with free legal advice and the offer of tourism, sporting, recreational and cultural activities, at convenient costs (see table No. 62).

The CRA supported **solidarity initiatives**, for example organising together with the Sant'Egidio Community meals for the homeless during public holidays, **and charitable initiatives** such as "Vorrei", an event aiming to raise funds to be allocated to the Foundation for cystic fibrosis research and the sale of the **Below calendar - 12 photographs for Africa** - whose proceeds were donated for the construction of water wells in Burkina Faso.

An agreement was also entered into with a telephone services operator so as to offer Group employees the possibility of

Table No. 62 – MEMBERS WHO USE CRA SERVICES (2009-2011)

	2009	2010	2011
members using tourism services	1,230	1,397	1,026
members benefiting from sporting grants	565	498	590
youngsters attending summer camps	127	284	171
youngsters benefiting from study holidays.	36	38	0
members paying insurance premiums in instalments	1,362	1,653	1,861
members paying instalments on purchases	97	192	167
members enrolled in the Italian Touring Club (T.C.I.)	61	58	41
number of medical insurance reimbursements	713	768	831
members benefiting from "Epiphany" gifts	683	707	707
members who benefited from scholarships	73	73	69

purchasing prepaid telephone cards, at advantageous prices, for telephone and internet traffic and state-of-the-art electronic devices.

Lastly, agreements were confirmed with companies which offer ticket sales services relating to sporting, theatrical and musical events and the bill payment, service, telephone recharges, etc. 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 (275 employees in Acea as of 31 December 2011) 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.

Box - The Gold Medal Association

The Gold Medal Association involves members who are pensioners and employees with at least 20 years of company service and provides them with assistance in relation to social security, taxes and insurance; this Association had 1,006 members as of 31 December 2011: 866 pensioners and 140 working members.

This Association also supports cultural and social initiatives and, in 2011, was responsible for:

- organising 2 social days, acknowledging longstanding members (at least 20 years membership) and employees who retired during 2011;
- assigning scholarships to members' children;
- organising trips to exhibitions and museums, social trips and holidays in Italy and abroad;
- providing tax advice to members, offering them the chance to have a CAF representative fill in their tax returns free of charge and ensuring tax and administrative assistance provided by an expert for the entire year.

Shareholders and financial backers

Acea, listed on the Milan Stock Exchange, handles relations with the shareholders, with the financial backers and with the property market, 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 for the management of the information flows

with the competent Supervisory Authorities (Consob and Borsa Italiana) and for the overseeing of the corporate fulfillments which Acea must observe as a listed company. This organisation ensures promptness, accountability and completeness in the information disclosed, being fundamental elements for the correct and effective functioning of the financial market.

The economic flow towards shareholders and financial backers

2011 management results produced Euro **59.6 million in dividends** for the shareholders, equal to Euro 0.28 per share, confirming a pay-out (dividend to net profit ratio) of around 70%. Profit pertaining to minority shareholders amounted to Euro 7.56 million.

Even utility shares, always considered to be a safe security, were affected during the year by the serious economic insecurity: among these was Acea stock which, as at 31 December 2011, reported a drop of almost 42% with respect to last year and total capitalisation of Euro 1,041 million (Euro 1,831 million in 2010).

The **financial backer** stakeholder was allocated **around Euro 150.8 million**, up around 22% with respect to the Euro 123.5 million in 2010. The breakdown of financial charges disclosed

Table No. 63 – ACEA STOCK AND STOCK EXCHANGE INDEX PERFORMANCE (2010-2011)

	% change 31 Dec. 2011 (compared with 31 Dec. 2010)
Acea	-41.97%
FTSE Italia All Share	-24.29%
FTSE Mib	-25.20%
FTSE Italia Mid Cap	-26.56%

essential stability in interest on short, medium and long-term borrowing, and a contained increase in interest on bonds, from Euro 36.8 million in 2010 to Euro 42.2 million in 2011. The total amount indicated above also includes the commission on receivables factored, amounting to Euro 23.6 million (Euro 10.3 million in 2010).

Agency ratings

The **rating** is an 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. 64 – 2011 RATINGS

agency	long-term rating	short-term rating
Fitch	A	F1
S&P's	A-	A-2
Moody's	Baa1	

In October 2011, the international agency **Moody's** reduced the rating on Acea SpA to Baa1 (from the previous A3). The change in the opinion, as indicated in the agency's note, reflects the negative review of the credit worthiness of various Italian local authorities after the cut in the sovereign rating expressed on Italy; furthermore, the agency reveals the potential impacts on the financial statements of the company due to both the application of the so-called "Robin tax", which involves a rise in corporate income tax, and the provision aimed at guaranteeing the risks for the recovery of amounts due to the water companies Acea Ato 2 SpA and Gori SpA. Analysis confirms the solidity of the Group's businesses and the ability to ensure predictability and transparency of future earnings to an equal extent.

In the same period, **Fitch** expressed its opinion maintaining the same rating given last year.

The last rating of the year on Acea communicated in December 2011, was that of **Standard & Poor's** which lowered the rating over the long and short-term to A- and A-2 (respectively, A e A-1 in the last rating), essentially due to the forecast of net debt on the up as a result of the increased working capital, deriving

from the financial crisis underway and the related potential higher exposure vis-à-vis customers and public administration authorities. The purchase of Acea SpA's historic headquarters and the distribution of an interim payment on 2011 dividends partly affected debt. Despite this, the Group's financial structure and liquidity are considered to be adequate.

Financial disclosure

During 2011, **around 160 studies and/or notes on Acea** were published, while the Investor Relations unit organised presentations extended to Italian and foreign investors, **approximately 60 one-on-one encounters**⁹⁹ and conference calls with analysts that cover Acea stock.

The communication of economic-financial information relating to the Group is constantly updated in the shareholders section on the **company website**, where documents, information and presentations are available. An on-line version of the last set of Acea annual statutory financial statements is also made available and, as from 2011, a specific disclosure section dedicated to **ratings**, where the latest opinions issued on the company by the agencies and the related summary reports can be found. Once again this year, the company has published the "on-line" versions of the **Consolidated financial statements** and the **Sustainability report** (2010), with the intention of making updated and interactive disclosure instruments available to the stakeholders.

Acea, considered to be among the top 100 Italian companies in terms of capitalisation, was subject to the **KWD Webranking 2011 Italy Top 100** study¹⁰⁰, the survey which assesses the corporate communication of companies on the web in relation to the disclosure requests made by professionals and stakeholders. Following the recovery of roughly 30 places in the ranking (60th place) and a score of 31.5, achieved by Acea last year, in 2011 the opinion was reviewed downwards with a score of 23.5 (scale of 1 to 100) and 71st position in the classification.

Table No. 65 – WEBRANKING ITALIA TOP 100: ACEA'S RANKING (2009-2011)

	2009	2010	2011
position	91	60	71
score	15.25	31.5	23.5

Over the last few years, the on-line communication of the companies on commitment and the performances in terms of society, environment, ethics, governance and dialogue with the stakeholders, also acquired specific significance and important growth. Precisely in this sphere, Acea - part of a panel made up of the 50 leading listed Italian companies - was assessed for the second year running in the **2011 CSR Online Awards 2011** survey.¹⁰¹ The company was acknowledged 28th place in the ranking of this classification, an improvement of one place between 2010 and 2011 despite an over score (21.5 points, on a scale of 1 to 100) lower than the last assessment.

Table No. 66 – CSR ONLINE AWARDS ITALY: ACEA'S RANKING (2010-2011)

	2010	2011
position	29	28
score	27.5	21.5

⁹⁹ These are individual disclosure encounters between the issuing company and potential investors.

¹⁰⁰ The survey is carried out each year, in collaboration between the consulting firms Hallvarsson & Halvarsson (H&H) and Lundquist, examining the company websites on the basis of 120 content-related aspects, defined by a panel of experts, with reference to which each company analysed is assigned a score and a related classification.

¹⁰¹ CSR Online Awards research, carried out by Lundquist, is based on a protocol defined by CSR experts with 79 assessment criteria, pertaining to 3 specific areas of survey on the basis of which the approaches to social responsibility (contents, navigability and usability, degree of dialogue and involvement) are assessed, via the websites of the companies.

Ethical finance

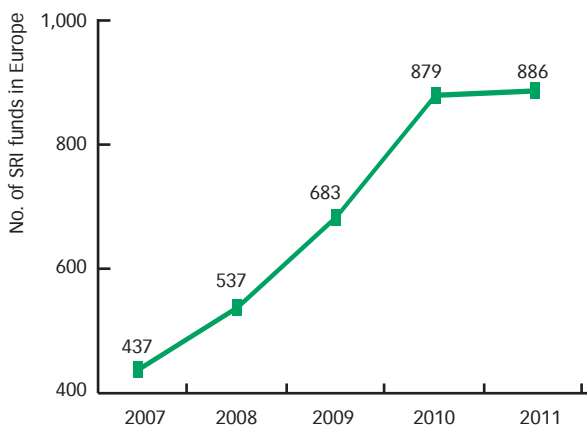
The evolution of ethical finance

The 2011 Vigeo report on **ethical funds in Europe – Green, social and ethical funds in Europe 2011 Review**¹⁰² – presents the evolution, over the last year, of this financial market segment. The outlook has changed as a result of the effects of the difficult economic situation: there is still a tendency towards growth which demonstrates staying power and vitality, but in a more contained manner with respect to the performance seen over the previous two years. The **number of SRI funds** (*Socially Responsible Investment*) domiciled in Europe and intended for the common market, in fact, after a significant increase reported between 2008 and 2010, of around 64%, **consolidated** at the same levels as last year, **with 886 funds active in June 2011** compared with 879 in 2010. That the figure can be considered to be an adjustment rather than a positive stop is confirmed by the **growth of 12%** with respect to 2010 **in the value of the assets managed** in Europe, which amounted to **over Euro 84 billion**, compared with Euro 75

billion in the previous year (see charts No. 29, 30 and 31).

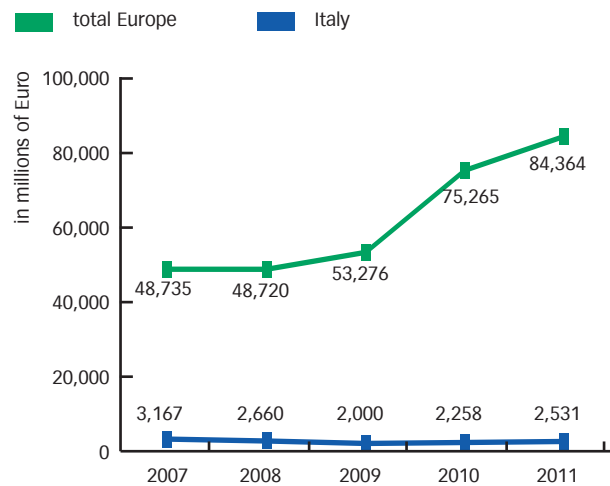
In detail, the European context - in line with the last few years - is characterised by a number of driving-force countries - France, Belgium, Switzerland and the UK - where the SRI funds market is already of a consistent size and gains increasing importance, and by other who disclose less significant changes. With respect to the 11 European countries surveyed, during 2011 only the SRI funds domiciled in Belgium, France and the Netherlands increased, while in the other countries the number remained unchanged or underwent slight dips. The value of the assets managed by contrast increased in seven out of the eleven countries, even if only France reported significant growth in the absolute value of the assets under management (+19%) and the four countries with the greatest percentage were confirmed, as last year, as France, the UK, Switzerland and Belgium, which in total had 76% of managed assets. Italy, together with Spain, Denmark and Austria, remains stable with regard to the situation seen last year.

Chart No. 29 – OVERALL NUMBER OF SRI FUNDS IN EUROPE (2007-2011)



Source: Vigeo, *Green, social and ethical funds in Europe. 2011 Review*.

Chart No. 30 - TOTAL ASSETS UNDER MANAGEMENT FOR SRI FUNDS IN EUROPE AND ITALY (2007-2011)

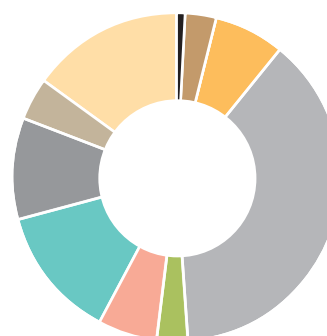


Source: Acea processing on Vigeo data, *Green, social and ethical funds in Europe. 2011 Review*.

¹⁰² The report, now in its eleventh 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, 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 2011.

Chart No. 31 – ASSETS UNDER MANAGEMENT FOR SRI FUNDS BY COUNTRY (2011)

country	%
Other	1
Austria	3
Germany	7
France	38
Italy	3
Sweden	6
Switzerland	13
Belgium	10
The Netherlands	4
UK	15



total AUM: Euro 84,364 million

Fonte: Vigeo, Green, social and ethical funds in Europe. 2011 Review.

The ethical analysts assess Acea

The relationship between Acea and ethical finance circles having by now been consolidated for some time, once again in 2011 the company positively compared, as shown below, its position in the assessments of analysts, ratings and ethical finance indexes.

Following the replacement of the pre-existing **Axia Euro Ethical** and **Axia Euro CSR** indexes with **Axia Global CSR**, which does not include Italian companies given their low capitalisation with respect to European and US companies, **Acea** is therefore classified **within the investible sphere** of the **Axia Sustainable Index (ASI)** index, with a positive A++ rating (scale of A/A+++) and a score of 77. This index is made up of 40 securities which distinguish themselves due to the high standards of the management of the environmental, social and governance policies on the basis of the ethical analysis method drawn up by AXIA.

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 as per the ECPI method, which contemplates over 100 positive analysis criteria on production process, environmental impact, governance dealings with the community, handling of diversity (gender, age,

culture). Furthermore, within the sphere of the ethical share indexes developed under partnership between ECPI and FTSE, Acea is a component of the **FTSE ECPI Italia SRI – Benchmark** list.

Acea has been **included**, as from its launch in December 2010, **in the Living Planet Green Tech Europe Index**, set up by a partnership between CA Cheuvreux (Crédit Agricole), Living Planet Fund (a socially responsible investment company which originates from the WWF International) and Amundi. On the basis of financial and environmental criteria, the index 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 2011 in the Kempen SNS Socially Responsible Investing universe.

In conclusion, **Oekom Research** has also expressed itself with a rating on the company, assessing the environmental and social aspects in the business management: according to the specific analysis metrics, Acea has a C+ level (scale of D-/A+). The strong points highlighted include the measures to guarantee the reliability of the electricity network and the mass adoption of meters for water consumption.

Institutions and the Company

Looking after the interaction with the various institutional and economic parties present in the reference scenarios, characterised by the culture of dialogue, is an aspect of particular importance for pursuing the Group's business

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**, under the form of taxes, amounted to approximately Euro 65.6 million (Euro 85.4 million in 2010). During the year, the detaxation of investments was applied (Tremonti Ter) for the second and third line of the S. Vittore del Lazio waste-to-energy plant, along with the reduced taxation of capital gains on disposal of the companies of the former joint venture AceaElectrabel. The tax rate for the year was equal to 41.2%, greater with respect to 2010 (38.5%).

Besides fulfilling one's tax liabilities vis-à-vis the public tax authorities, Acea pays contributions to other public and private bodies, such as the chambers of commerce and the independent administrative authorities, the sector associations and the representative bodies, for a total amount in 2011 of around Euro 2.5 million. These include the amounts in favour of the regulatory authorities (AEEG and other public service authorities) for an amount of around Euro 1.15 million, and contributions to federal trade bodies and other membership fees (such as Federutility-Confservizi and Unione industriali di Roma) for around Euro 1.1 million.

The **institutions** are a preferential partner with whom to work for the achievement of initiatives which may generate positive repercussions on the quality of life of the population served and on the development of the area, also by virtue of the essential nature of the services provided by the Group and their impact on the communities (see sections Customers and the community, Human resources and Environmental issues). Acea interacts with the various institutional parties in

mission. Relations with the institutional stakeholders are defined by seeking a shared advantage which takes into consideration, among other aspects, the interest of the community.

observance of the principles and regulations confirmed in the Group's value codes. The Ethical Code dedicates Article 19 to dealings with political institutions and trade union organisations, establishing that:

«The company does not contribute in any way to the funding of political or trade union parties, movements, committees or organisations, or their representatives or candidates.

It refrains from conduct aimed at exerting pressure, directly or indirectly, on political exponents and does not disburse grants to organisations with which a conflict of interest could arise.

Acea also co-operates financially with non-political associations for specific projects, on the basis of the following criteria:

- *purposes referable to the corporate mission;*
- *clear and documentable destination of the resources;*
- *express authorization from the divisions tasked with handling these relations within Acea».*

In order to ensure adequate coverage of the handling of institutional relations, Acea has endowed itself with an organisational model, finalised in 2011, which defines corporate appointments and responsibilities in a precise manner. In accordance with this model, **Acea SpA's Chairman** is entrusted with the **legal representation** and the **definition of the institutional strategies**; the **Corporate Affairs Division** ensures correct and timely communication to the **Supervisory authorities** on companies and the stock market (Borsa and Consob); the **Institutional Affairs Division** monitors the developments in the legislative scenario with reference to the corporate businesses and co-ordinates, within the sphere of dealings with the Consumer Associations, the activities correlated to joint conciliation procedures; the **Regulatory Division** oversees the dealings with the **Regulatory Authorities** in the reference sectors of the Group and is an active part in the consultations and debates furthered by the competent bodies.

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 should be mentioned, which concern social and environmental, security and protection of public heritage spheres, some of which are illustrated below.

In detail, **with regard to the subject of security**, Acea makes its skills available taking part in specific work groups in **key infrastructures**. Since 2009, in fact, the company has participated, together with government representatives for Defence, Health and Civil Protection, the main public services operators and qualified representatives from academic circles, in the activities of the National Security Monitoring Centre (OSN) - furthered by the Ministry of Defence's Military Centre for Strategic Studies - which operates for the purpose of identifying and protecting sites of national strategic importance¹⁰³.

The main initiatives started in 2011 by the Monitoring Centre concerned emergency communication and organisation of courses for civil and military collaboration for the handling of emergencies. Acea also took part in the first national conference on key infrastructures, organised by the OSN, during which businesses, universities and research centres exchanged views on possible future, method-based and technological developments, of the handling of the security of the infrastructures, sharing specific expertise and experiences. Furthermore, during the year Acea worked together with the Italian Association of experts on Key Infrastructures (A.I.I.C.), taking part in analytical meetings on the subject and collaborating with the drafting of guidelines for the achievement of the Operator Security Plan (PSO), as per Italian

Legislative Decree No. 61/2011¹⁰³.

The partnership between Acea and the local public administration authorities, and in particular the Rome City Council, made it possible to achieve important initiatives within the sphere of the Action plan for sustainable energy in the city of Rome, such as **the sustainable mobility project** in Rome and Lazio, that **for eco-sustainable growth** in Rome and the **Cat-Med project** (Changing Mediterranean Metropolises Around Time) for the promotion of sustainable urban development (see *Research* in the section *Environmental issues*).

During 2011, Acea renewed its participation in the task-force **for the protection and recovery of public and open-air green areas**, set up in 2010 in Rome due to the wishes of the Municipal agency for the Environment and made up of AMA - the municipal company tasked with handling waste - and the Municipal Police Force. Specifically, during the year the task force got involved in operations for the redevelopment of certain areas of the old city centre and peripheral municipal area with action aimed at improving the safety and liveability of the same for the citizens of the city.

In order to encourage the development of technological innovation in the various businesses in which it is involved, Acea is a member of **Research centres, Associations and Standardisation Bodies**, promoting or contributing towards research activities in the reference sectors (see box). Acea's presence in some of the main associations involved in the promotion and development of renewable energies, such as Di.T.NE - Distretto Tecnologico Nazionale sull'Energia Scarl - and ISES - International Solar Energy Society, Italian Section - bears witness to the company's contribution to the growth of this sector. Specifically, the Technological District poses itself the

Box – Membership of Research centres, Standardisation bodies and Sector associations

The main memberships renewed or started up in 2011:

- Associazione Amici dell'Accademia dei Lincei
- Associazione Amici della Luiss
- Einaudi Foundation
- CSR Manager Network Italia (Altis and ISVI)
- Global Compact (ONU)
- 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)
- Comitato Elettrotecnico Italiano (CEI)
- Istituto Unificazione Italiano (UNI)
- Associazione Italiana di Illuminazione (AIDI)
- Italian Association for Trenchless Technology (IATT)
- 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)

¹⁰³ During 2011, Italian Legislative Decree No. 61 was issued in accordance with Directive 2008/114/EC of the European Council, relating to the identification and designation of critical European infrastructures and the assessment of the need to improve protection.

¹⁰⁴ Acknowledging the European Directive No. 114/2008 on Key European Infrastructures.

aim of supporting the appeal of the investments in the field of renewable energies, by means of scientific and technological excellence, encouraging the link between research, production of goods and services and credit, while ISES is one of the leading techno-scientific non-profit making associations active for the promotion of the use of renewable energy sources (thermal solar, photovoltaic solar, wind power, energy from biomasses, bioclimatics, geothermal energy, water energy, energy from the sea).

The relationship between Acea and the **institutions tasked with education** and training of youngsters is stimulated by the intention 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 for university courses and Masters' degrees and **supports, also via the disbursement of loans and scholarships**, research activities or Masters' courses on topics of interest (see also the section *Human Resources*).

Collaboration and partnerships also take place between the Group operating companies and **Universities** as part of **technical projects** carried out both in the environmental-energy and water spheres. The most significant studies, merely by way of example, include those relating to the optimisation of the management of the Rome Municipality sewerage and treatment system and the protection of the receiving water bodies, the rivers Tiber and Aniene (see the section *Research in Environmental issues*).

The company **takes part in exchanges of views on topical matters and subjects of national and international importance** among 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 2011, the company dedicated particular attention to the subject of **sustainable mobility**, taking part in events such as: Roma Capitale dell'Ambiente "il futuro è adesso", *Sviluppo d'infrastrutture per la mobilità elettrica*, *Green City Energy* and *Gli sviluppi sostenibili del settore trasporto auto*.

Besides overseeing and monitoring the evolution of the reference scenario, the company explores the development potential of the businesses achieving synergies with other companies: in 2011, for example, Acea entered into two Memorandum's of Agreement with Enel and with Fiat Group Automobiles in relation to sustainable mobility and, within the sphere of energy efficiency, it launched collaboration with

Ricerca Sistema Energetico SpA (see *Environmental issues*).

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 groups, trade union and consumer protection Associations.

The Parent Company's Institutional Affairs Unit, among other responsibilities, has that of overseeing, together with the Group operating companies, the handling of **relations with consumer associations**. Besides the permanent round table on projects and issues of common importance, Acea has from some time adopted the **chamber mediation** procedure, care of the Rome Chamber of Commerce, and the **joint mediation** procedure. The latter initiative involves Acea Ato 2 and Acea Ato 5 for the water sector and Acea Energia (formerly AceaElectrabel Elettricità) for the electricity sector and concerns household customers residents in Lazio, represented and supported by the Consumer Associations recognised by the National Consumers and User Council - CNCU.

During 2011, 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 Ato 2 and Acea Ato 5 and protocolled by the Conciliation Secretariat came to 195 (36 in 2010), of which 158 admitted to the conciliation procedure.

In detail, with regard to Acea Energia, of the 96 conciliation requests presented, just one was rejected due to the failure to present the claim in advance by the customer: the company in fact adopted a line of conduct which envisages facilitated access to joint conciliation, considered to be a valid instrument for guiding customers; with regard to Acea Ato 2 and Acea Ato 5, the conciliation requests presented were 79 and 20, respectively, of which 27 and 9 rejected due to non-compliance of the cases with the conciliation Regulations, which lays down the cases admissible. With reference to the **chamber mediation** procedure, active care of Acea Energia, in 2011 5 requests for conciliation were received, all discussed.

In conclusion, an agreement was signed in 2011 between **Acea Energia and 16 Consumer Protection Associations** which gave rise to a **Permanent Joint Monitoring Centre** focused on the commercial aspects associated with the sale of electricity, so as to monitor any improper commercial conduct and intervene appropriately (see also the section *Customers and the Community, Customer care*).

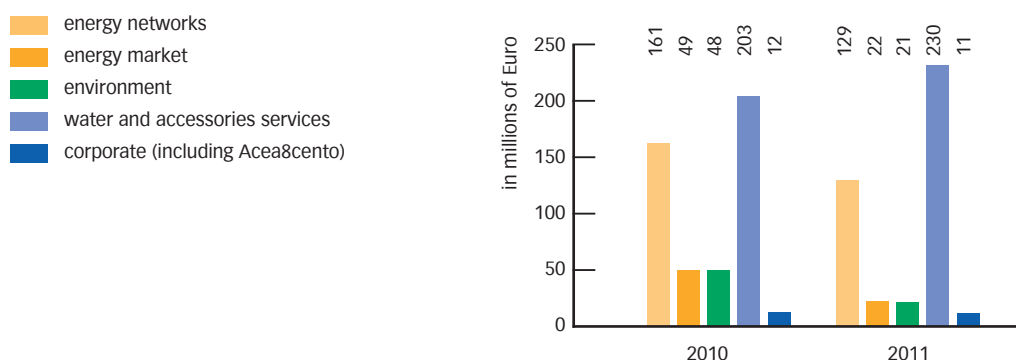
The company as stakeholder

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 strategic Plan.

Investments, amounting to **Euro 413 million**, dropped 12.7% with respect to the Euro 473 million in 2010. Water

management services, with Euro 230 million, absorbed around 56% of the total amount, and activities relating to energy networks, with around Euro 130 million, use 31% of total investments, while the volumes intended for the following areas decreased: environment in which measures are being completed on the S. Vittore del Lazio waste-to-energy plant, and energy, following the exit of the energy generation company Tirreno Power from the Acea Group boundaries.

Chart No. 32 – BREAKDOWN OF INVESTMENTS BY BUSINESS SECTOR (2010-2011)



Amortisation, depreciation, provisions and writedowns, being components of the company's self-financing, amounted in 2011 to Euro 433.3 million, +24.3% with respect to the Euro 348.6 million in 2010, mainly due to the rise in provisions made for covering potential regulatory risks in the water sector.

The **physical** (physical business structures) and **logical** (intangible assets) **protection of the company assets, the prevention of fraudulent phenomenon, privacy, IT security, 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 procedure for the handling and **control of access to company sites**, issued last year, plays a significant role for the protection of the assets and security, therefore, during 2011, for the purpose of making it more efficient, Acea developed an automatic system for managing the access requests and issuing company badges for entering the offices.

On a consistent basis with the process for the centralisation of the management of company protection, during the year Acea SpA took over the **management of the reception and security services**, already seen to at central headquarters and in the public hall, also at the operational premises of other Group companies including Acea Energia, Acea Energia holding, Acea Produzione, Acea Distribuzione, LaboratoRI, Acea Ato 2, and Acea Ato 5. For such purposes, a specific tender contract was awarded for the supply of the services associated with reception and security, which envisaged the definition - standard for all the companies involved - of the optimum service parameters and the discounting back of the corresponding tariffs.

The company also oversees **the security of the information systems** involving measures targeted at protecting them from potential risks and violation of data; in 2011, a study was put together for the collation, monitoring and centralised handling of the alarms relating to attempts to get into the company systems, damage to the networks by means of viruses or the stealing of information without the user knowing. In conclusion,

with the supervision and co-ordination of the Parent Company, Acea Distribuzione and Acea Ato 2 have put together vulnerability test activities on the **remote control and monitoring systems** for the respective networks, which will take place as from 2012.

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, developed and implemented in the various operating sectors, is a further distinctive element of Acea's strategic vision.

Simply consider the Geographic Information System – GIS for the mapping of the networks, applied both in the water sector and the energy area (distribution and public lighting), 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, experimental measures for the smart networks, just to name a few (see the section *Customers and the Community* – Quality supplied – and *Environmental issues*).

Box – Measures taken by the Sector authorities vis-à-vis Acea: preliminary investigations, bonuses and fines

The penalty and fine system established by the **Electricity and Gas Authority (AEEG)** vis-à-vis the companies operating on the electricity market contributes towards inciting the companies to improve their performances. Over the last few years, **Acea Distribuzione** has achieved important results in this sense 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 2008 service performances and from then on each year. Once again in 2011, for the service results relating to 2010, the AEEG overall approved the payment to **Acea Distribuzione** of an incentive amounting to around **Euro 5.34 million** (Resolution ARG/elt 170/11).

During 2011, the AEEG - carrying out its supervisory and control function - followed up the measures previously adopted vis-à-vis **Acea Distribuzione**: in fact, **two procedures** launched in 2009 were concluded. In relation to the first one (VIS 18/11), the company was fined, for an amount of **Euro 571 thousand**, for the violations committed in the three-year period 2005-2007 relating to the correct management of certain aspects of the energy dispatching and metering activities; with regard to the second one (VIS 91/11), **Acea Distribuzione** was fined, for a total of **Euro 243 thousand**, for not having fully observed the obligation to make certain data available to the sales companies, functional for correct billing of the energy. Furthermore, **preliminary proceedings** (VIS 60/11) are underway for alleged violations of current provisions regarding registration of the black outs and handling of the report registers with reference to the individual specific episode which occurred in August 2009.

The **Italian Anti-trust Authority (AGCM)** in turn took action vis-à-vis a number of Acea Group companies so as to ascertain any corporate conduct which might be taken as **improper commercial practices**, prohibited by the Consumer Code (Italian Legislative Decree No. 206/2005). Specifically, in December 2011 proceedings launched in July against **Acea Energia** concluded, with the application of **two fines of Euro 500 thousand**; the proceedings were originally launched on the basis of consumer reports received between October 2008 and September 2011 (unrequested activations of electricity and natural gas supplies for the purpose of acquiring residential customers on the free market). This ruling was **challenged by Acea Energia**, which presented an appeal.

In conclusion, the **AGCM** forwarded a number of requests for information (so-called preliminary proceedings) vis-à-vis **Acea Ato 2**, so as to check the correct corporate conduct regarding the procedures adopted for the handling of certain aspects of the utility relationship (for example: reading of consumption and billing; repair procedures and replacement of meters, transfers, etc.) Further to the information provided, **there were no other communications** from the Authority.

With regard to **public lighting**, the improvement of the performances relating to the service carried out in the Municipality of Rome continued in 2011 as well. The percentage of measures on faults carried out beyond the maximum deadlines established by the contract fell from 1.3% (2010) to 0.6% (2011); in relation to this, Acea was fined for an overall amount of around **Euro 30 thousand**, down by 35% with respect to the fines of Euro 46 thousand of 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 has operated abroad in the water services sector for some years now, in Peru, Honduras, Colombia and the Dominican Republic, in areas which, overall, serve a base of around 9.7 million inhabitants. Even if, in terms of consolidation percentage, activities abroad have a contained incidence on the gross operating margin generated by the water business, 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 Code of Ethics*¹⁰⁵ has been disclosed care of all the foreign investee companies, available on the company website (www.acea.it).

CONSORCIO AGUA AZUL SA

Consortio 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 2011, 47.1 Mm³ of drinking water was produced, 5% more than in 2010, thanks to the availability of surface water whose exploitation increased 18%.

CONSORCIO AGUA AZUL SA – MAIN CORPORATE AND OPERATING FIGURES

Country (area)	Peru (northern area of Lima - Cono Norte)
inhabitants served	750,000
customer	Sedapal (State-owned drinking water and sewerage service of Lima)
source of funding	Shareholders' equity and bonds issued on the Peruvian market
duration of the contract	7 April 200 – 18 June 2027
purpose of the project	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
partners	Acea SpA 25.5% - Impregilo International Infrastructure N.V. 25.5% - Marubeni Co 29% - Inversiones Liquidas S.A.C 20%
No. of employees as of 31 Dec. 2011	31
business turnover (in thousands of Euro)	9,669

With regard to the socio-environmental commitment, Consortio Agua Azul once again in 2011 supported state organisations (the National Police Force, primary schools), non-profit foundations (such as associations that help drug addicts) and local farmers' associations, with which it shares use of

water from the Valle del Chillón. For the seventh year running, it distributed teaching materials (715 school kits, 7% more than last year) to primary schools and nursery schools in the area, encouraging a decrease in the rate of school abandonment. The rucksacks distributed are created entirely from recycled plastic

¹⁰⁵ In detail, section 14.3 of the Code of Ethics defines the Protection of the ethical aspects in supplies indicating that: "Within the sphere of the procurement activities, Acea undertakes to further observance of the environmental conditions and ensure that they are carried out in compliance with the ethical principles and the law, requesting socially relevant requisites for particular supplies. Accordingly, 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".

and feature printed phrases which encourage the correct use of the water resource and the respect of the environment. Initiatives aimed at confirming the importance of the water resources in Man's daily life were organised during 2011, involving 335 students of the area in fun experiments. Again in the educational sphere, the Consortiums hosted 4 youngsters-university students and new graduates, and accommodated the practical phase of the regional course on the functioning of the rapid filtration plants, in which graduates from various Latin American countries take part each year. With regard to the

management of the human resources, the Consortium provided 2,292 hours of training, which in particular concerned environmental aspects and relating to safety in the workplace. The Safety in the Workplace Management System (in accordance with Supreme Decree DS 009-2005-TR) is under implementation, 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 2011 came to around 106,000, 73% of which supplied with meters. The coverage of the drinking water service reached 99% and that of the sewerage service was 83%. Water production came to 81.8 Mm³, 55% 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 st February 2001 – 1 st 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. 2011	410
business turnover (in thousands of Euro)	18,468

The company continued in 2011 with the social support initiative 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, involving the achievement of measures including the "Merendon" re-forestation, launched in 2004 and progressively being completed; the protection of the cocoa plantations in the dells of the rivers Manchagualla, Frio and El Palmar; the implementation of campaigns for protection from fires; the construction of two health units for two schools in the area.

There were many initiatives in favour of employees, such as the allocation, also on the basis of income, of scholarships to workers and children of employees, grants for the purchase of books and school materials, training courses on technical and

administrative subjects (6,976 hours of courses were provided during the year to 256 employees). Furthermore, in order to ensure better medical assistance, a medical unit was set up within the company structures, affiliated with the National Health Service. During 2011, 7,360 medical check ups were carried out, along with health information campaigns and vaccination campaigns (against flu, tetanus, hepatitis and typhoid) 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 2011, the company continued with the certification process for the laboratory in accordance with the **ISO 17025:2005** standard and launched the implementation 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. 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 st October 2003 – 1 st October 2016
purpose of the project	commercial management of water service
partners	Acea SpA 100%,
No. of employees as of 31 Dec. 2011	130
business turnover (in thousands of Euro)	2,634

During 2011, 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.

With regard to human resource management, Acea Dominicana operates in accordance with Dominican Republic Employment

and Social Law legislation and adopts corporate policies to safeguard the rights and dignity of employees, e.g. all employees have private health insurance and a fund is set aside to ensure severance pay, although both are optional in the Dominican Republic.

AGUAZUL BOGOTÁ SA ESP

Aguazul Bogotá sees to the commercial management and the distribution networks in Bogotá, in 3/5ths of the capital. 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. The current contract, in force since January 2008, even if having the same structure as the previous one, entered into in 2003, is more challenging in terms of management objectives. The results achieved during the year were satisfactory with management indexes higher than the contractual targets.

AGUAZUL BOGOTÁ SA ESP – MAIN CORPORATE AND OPERATING FIGURES

country (area)	Colombia (Bogotá, zones 1,2 and 5)
inhabitants served	4,500,000
customer	Empresa de Acueducto y Alcantarillado de Bogotá (EAAB)
duration of the contract	2 January 2003 - 31 December 2012 (two contracts)
purpose of the project	Commercial management of the water service, running and maintenance of the distribution network
partners	Acea SpA 51%, Gruppo Emdepa 29%, V. Cavalli 10%, L.E. Belalcazar 10%
No. of employees as of 31 Dec. 2011	1,004
business turnover (in thousands of Euro)	31,172 (**)

(*) includes 60% of the Consorcio AZB-HCI revenues.

In 2011, the company got involved in a process for supporting and listening to 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 are informed of the main aspects of the water service and were supported for the solution of possible problems associated with the same, in the attempt to reduce resistance to activities such as meter reading and consumption checking. During the year, Aguazul Bogotá hosted 58 students, including 17 from universities, who carried out a period of practical training in the company defined within the sphere of agreements with the National Learning Service (SENA) of the Ministry for Social Protection.

Human resource management once again envisaged in 2011 the use of local unskilled labour resident in the area of service, with the aim of developing more disadvantaged areas. 7,044 hours of training were provided to 984 employees, concerning various spheres such as IT, work safety and the quality management system, in addition to aspects pertaining to the water service. Sport and recreational activities were organised as well during 2011, involving employees and their families. Aguazul Bogota operates according to the **ISO 9001:2008 standard** quality system (Quality certification was renewed and updated in April 2011). **A Health and safety in the workplace and environmental protection management system** also operates.

CONSORCIO AGUAZUL BOGOTÁ-HCI

Aguazul Bogotá and the Peruvian HCI Group established Consorcio AZB-HCI (Conazul) which was awarded the contract for managing the commercial services in the northern area of Lima. The contract, commencing on 1st 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 around 400,000 meters. During 2011, over 172,000 meters were installed (200,000 from the start of the contract) and the number of customers billed by meter reading increased 14% with respect to the previous year.

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 st 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. 2011	466
business turnover (in thousands of Euro)	12,244 (*)

(**) included in the revenues of Aguazul Bogotá for 60%.

The Consortium achieved the awareness-raising campaigns once again in 2011 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, 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 relating to the **environmental performances** (core and additional) envisaged by the **GRI-G3.1 Guidelines, edition 2011**, together with the indicators introduced by the **Sector Supplement for Utility companies in the electric sector** are shown below¹⁰⁶, 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.

The quantitative environmental figures are illustrated in the **Environmental accounts**, an integral part of the Sustainability Report, made up of **around 250 items** which describe the **production** values, the factors used (the **resources**), and the external outputs (waste and emissions). The Environmental accounts also include the presentation of **around 60 indicators/parameters** of environmental importance, selected so as to clearly and concisely describe the Group's performances.

Table No. 66 – GRI-G3.1 ENVIRONMENTAL INDICATORS

Materials	
EN1	(Core) Materials used by weight or volume. <i>Environmental accounts</i> pages XI-XIII; 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. There were 407 transformers with PCB exceeding 50 ppm but below the aforementioned threshold in 2011 (422 last year).
EN2	(Core) Percentage of materials used that are recycle input materials. For the purchase of certain types of materials for current use, the guidelines proposed by the MATTM within the sphere of the activities carried out by the Permanent Round Table for Green Public Procurement are being progressively implemented.
Energy	
EN3	(Core) Direct energy consumption by primary energy source. <i>Environmental issues</i> pages 182, 183
EN4	(Core) Indirect energy consumption by primary source. <i>Environmental issues</i> pages 182, 183
EN5	(Additional) Energy saved due to conservation and efficiency improvements. <i>Environmental issues</i> pages 169, 171
EN6	(Additional) Initiatives to provide energy-efficient or renewable energy-based products and services, and reductions in energy requirements as a result of these initiatives. <i>Socio-economic relationships with the stakeholders</i> page 94; <i>Environmental issues</i> pages 162, 171
EN7	(Additional) Initiatives to reduce indirect energy consumption and reductions achieved. <i>Environmental issues</i> page 172
Water	
EN8	(Core) Total water withdrawal by source. <i>Environmental issues</i> pages 183, 184
EN9	(Additional) Water sources significantly affected by withdrawal of water. <i>Environmental issues</i> page 175
EN10	(Additional) Percentage and total volume of water recycled and reused. <i>Environmental issues</i> pages 183, 184 (limited to the cooling process of the thermoelectric plants)

¹⁰⁶ The indicators of the Sector Supplement for Utility companies in the electric sector (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.

Biodiversity

- EN11 (Core) Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.
Environmental issues pages 159, 175
- EN12 (Core) Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.
Environmental issues page 159
- EU13 Biodiversity of offset habitats compared to the biodiversity of the affected areas.
Environmental issues page 159
- EN13 (Additional) Habitats protected or restored.
Environmental issues page 159
- EN14 (Additional) Strategies, current actions, and future plans for managing impacts on biodiversity.
Environmental issues page 159
- EN15 (Additional)) 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, but 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

- EN16 (Core) Total direct and indirect greenhouse gas emissions by weight.
Environmental issues pages 185, 186; *Environmental accounts* pages XIV, XVI, XVII
- EN17 (Core) Other relevant indirect greenhouse gas emissions by weight.
No significant emissions to report
- EN18 (Additional) Initiatives to reduce greenhouse gas emissions and reductions achieved.
Environmental issues page 172
- EN19 (Core) Emissions of ozone-depleting substances by weight.
Environmental issues page 186
- EN20 (Core) NO_x, SO_x, and other significant air emissions by type and weight.
Environmental issues page 186; *Environmental accounts* pages XIV, XVI, XVII
- EN21 (Core) Total water discharge by quality and destination.
The water which is used by the Acea Structures for "civil/sanitary" use (around 1 Mm³ in 2011) underwent the same standard purification treatment which all the civil waste water is subject to. The environmental impact on the receiving water body by the discharge of the treated water is particularly contained.
- EN22 (Core) Total weight of waste by type and disposal method.
Environmental issues pages 186, 187; greater details in the *Environmental accounts*
- EN23 (Core) Total number and volume of significant spills.
In 2011, as already occurred over the last few years, there were no significant spills into the environment of polluting substances such as mineral oil, fuel or chemical products.
- EN24 (Additional) 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.
Waste classified as "hazardous", monitored as indicated by EN22, is transferred to specialized and authorized external companies. At present, the item is not additionally monitored.
Environmental issues pages 186, 187
- EN25 (Additional) 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.

(*) The IUCN (International Union for the Conservation of Nature) list, to which the EN15 indicator refers, concerns endangered species (www.iucn.org).

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. The initiatives focus on the reduction of the emissions into the atmosphere (due to thermoelectric generation).

Environmental issues pages 160, 162, 185

EN27 (Core) Percentage of products sold and their packaging materials that are reclaimed by category. Not applicable.

Compliance

EN28 Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations.

Socio-economic relationships with the stakeholders page 147; *Environmental issues* page 160

Transport

EN29 (Additional) Significant environmental impacts of transporting products and other goods and materials used.

Environmental issues page 182

General

EN30 (Additional) Total environmental protection expenditures and investments by type.

Environmental issues page 161

The commitment towards sustainability

According to the known definition of the Bruntland Report, being “sustainable” means «satisfying the needs of the current generation without compromising the ability to satisfy the needs of future generations». Based on a long-term vision which combines respect for the environment with social and economic progress, sustainability acknowledges an essential condition for the well-being of mankind in the integrity of the natural systems. Acea has adopted this vision and has chosen a growth model inspired by the principles of the highest environmental protection, by means of a strategy which aims at three macro-objectives: **increase the efficiency** of the

production processes, **innovate** using the technologies and management systems with the **lowest environmental impact** and progressively increase the portion of electricity generated by **renewable sources**. On a parallel, diligent monitoring is carried out on the environmental performances, together with feedback and involvement action with the various stakeholders. Part of the long-term strategy is also represented by Acea’s active participation in the debate and exchange of views on the subject of environmental protection, which from some time now has been brought to the attention of government institutions and public opinion.

Box – From the Stockholm Conference to “Rio + 20”

In 1972, the “UN Conference on Human Environment” was held in Stockholm, attended by the representatives of 113 Countries. It was the starting point of the international debate on global environmental policy, which among other aspects led to the creation of the UNEP (United Nations Environmental Programme): the environmental programme of the United Nations set up with the task of furthering and co-ordinating UN environmental initiatives. At the same time, the Declaration on the human environment, or rather 26 principles on human rights and responsibilities with respect to the environment, and the Action Plan with 109 recommendations, were approved. In 1987, the **Bruntland Report** was published, whose conclusions outlined the framework of the concept of “sustainable growth”. In 1992, the United Nations Conference on Environment and Development - UNCED was held in Rio de Janeiro, also known as the “**Earth Summit**”, which was attended by representatives of 172 countries and thousands of civil society organisations. Three International Environmental Conventions were approved and open to ratification: the Framework Convention on Climate Change; the Convention on Biological Diversity; the Convention to combat Desertification and Drought, of historic purport due to the clear identification of the methods for contrasting planetary problems.

Twenty years on from that historic event, the **next United Nations Conference** will be held in **June 2012**, again in Rio, with the ambitious aim of renewing the political commitment for sustainable development, checking the aspects achieved since 1992 to-date and proposing objectives for the future. The main themes include: the **Green Economy** - an economy which furthers sustainable development and the fight against poverty and **Governance for sustainable development**.

Preparatory meetings for the Rio conference were organised in Italy during 2011, which Acea also attended via its own representatives, contributing towards the definition of a common platform to present to the Summit so as to lay the bases for global sustainable development. Other information on http://www.minambiente.it/home_it; <http://www.unccd2012.org/rio20>

In the three main sectors of operations – **energy, water and environment** – Acea runs the plants and processes taking care to maintain the balance between the social and environmental dimensions of the activities, on a consistent basis with the need to make them suitably remunerative from an economic standpoint at the same time. A challenge which implies a sense of responsibility and a long-term vision.

The *Environmental policy* and the value codes adopted over time by senior management as instruments for guiding the organisation, have produced visible results in terms of

systematisation, with the progressive disclosure of a new approach to the management of the production processes, increasingly aligned with the principles expressed by the international reference standards, the UNI EN ISO 14001.

The training of the employees on environmental issues, which also concerned the most recent legislative changes such as the REACH regulations and the waste traceability system SISTRI, ensured a satisfactory level of compliance of the professional skills available with the challenging needs for expertise determined by the complex reference context.

Climate change: an open question

In order to deal with climate change, on the consequences of which numerous international research agencies have raised repeated alarms for several years, a mutual commitment is underway. It is in fact necessary to globally improve the handling of greenhouse gas emissions, so as to reduce the quantities considerably and quickly. Acea has also posed itself this challenge, with the aim of **containing the carbon footprint of**

the production processes, for a future less dependent on fossil fuels. Participation in the **Carbon Disclosure Project – CDP** (see related box) falls within this sphere, considered from as far back as its first edition in 2006 as a valid initiative for stimulating attention on Carbon Management and so as to set tangible reduction targets, which can be measured over time. In the last study published by the CDP, *Italy 100 Report 2011*¹⁰⁷,

Box – Carbon Disclosure Project

The Carbon Disclosure Project (CDP) is an international initiative launched in 2000 by the non-profit organisation Rockefeller Philanthropy Advisors of New York. It is supported by around 400 institutional investors, mainly large banks and financial brokers, with the aim of assessing the strategies for responding to the challenge of climate change put forward by the companies which voluntarily accept to answer a lengthy questionnaire proposed by the CDP organisation.

The financial markets are interested in knowing how the companies treat the subject of climate change and tend to valorise whomever organises itself to respond pro-actively to the challenge, considering it with greater probability of success over the medium/long-term.

Participation by a company in the initiative involves the compilation of a complex questionnaire which indicates the ability of management to exercise effective control over greenhouse gas emissions and plan reduction objectives. Analysis of the risks and opportunities which accompany climate change also spurs the company on to develop models for adaptation to the phenomena of climate change.

The disclosure includes the emission figures, both absolute and index-linked to the product. In Acea's case, the absolute emission value in 2011 came to around 31,000 t CO₂, against total electricity production from renewable and fossil sources equating to around 544 GWh (indicator equal to 57 g CO₂/kWh). The disclosure of the company received a score of 67/100 and the ability to handle the emissions problem received a score equal to "C" (scale of E/A).

Other information is available on the websites: <http://www.kyotoclub.org>; <https://www.cdproject.net>

Box – Handling the carbon footprint: energy efficiency, renewable and sustainable mobility

The Acea Group's commitment in the handling of the carbon footprint was focused in 2011 on three spheres of intervention:

- **energy efficiency - indirect emissions (scope 2):** in order to reduce the "scope 2" emissions, which derive from the use of energy, Acea has set itself the objective of improving energy efficiency in its end uses, decreasing total energy consumption by at least 1% per 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 tCO₂ per year avoided. **The energy saved during 2011 in just the water sector, equal to around 10 GWh, made it possible to exceed the annual target;**
- **renewable energies:** significant investments were incurred in 2011 for the development of renewable sources. The measures in particular concerned generation from photovoltaic sources, with around 52 MW installed in 2011, compared with 25 MW in 2010; hydroelectric generation, with the modernisation of the traditional plants of Salisano and Marconi and electricity generation from the combustion of waste (waste-to-energy – conventionally considered renewable to an extent of 50% of the total), with technological innovations aimed at obtaining the highest level of environmental compatibility in the operating plants. The portion generated from renewable sources, also following the winding up of the JV with GdF Suez Energia Italia SpA, achieved 82% of the total.
- **sustainable mobility:** in February 2011, **Acea and Enel** entered into a Memorandum of Understanding for the joint development of a standardised and interoperable recharging infrastructure for electric vehicles so as to speed up the convergence of the technological solutions, under a single national and European standard; furthermore, a Memorandum of Understanding was also entered into during the year between **Acea and FIAT Group Automobiles** for the launch and carrying out of pilot projects which permit Acea to identify the most suitable solutions for promoting and implementing electric mobility in the City of Rome area. The company vehicle fleet, comprising around 2,300 traditional vehicles powered by petrol and diesel mainly used for commercial and maintenance activities, will be progressively supplemented by electric vehicles. The first lot of 40 FIAT Fiorino Cargo vehicles transformed from Micro-Vett into electrically-powered vehicles, introduced into the Acea fleet, is operative in the City of Rome area.

¹⁰⁷ Available on-line on the website www.cdproject.net.

on a sample of 100 Italian companies taking part in the project, **Acea received a flattering valuation** both with reference to the clarity and completeness of the disclosure (score: 67/100),

and in terms of the ability to handle the emissions problem (score equal to "C" out of a scale of E/A).

Biodiversity and the Company

The protection of biodiversity in the areas affected by infrastructures which have an impact, is another challenge posed at international level which Acea has adopted. As is known, the scientific community attaches great importance to the maintenance of a high level of biological diversity on the Planet: the risk of irreversibly compromising delicate natural balances in fact forces the parties who could potentially damage animal and vegetable life to be cautious.

For this reason, Acea - also for the activities which apparently have less impact such as the opening of excavations - takes steps to assess the risk of interferences with the environment so as to always choose the less invasive option and makes a particular commitment to adopt the operational expedients capable of intercepting the negative effects of its activities.

By way of example, mention is made of the work for **protecting 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.

Emphasis is also made of the commitment to contain the impact of **high and medium voltage overhead lines** which affect areas of particular esteem, seeking the best technological answer together with the area protection bodies, with respect to protection instruments and in any event to safeguard the environment.

Collaboration between Acea and Ornithologica - a non-profit making company involved in the study and protection of birdlife - contributes to keeping the level of attention high with regard to the protection of birds, exposed to the risk of collision with the overhead electricity lines. A result of this collaboration was the nesting of a couple of peregrine falcons (Appio and Vergine) on the drinking water reservoir which Acea manages in East Rome, in Salone. The importance of the event lies in the possibility of constantly monitoring what occurs in the nest thanks to a webcam focused on it and this attracts the attention of researchers and thousands of enthusiasts worldwide.

Box – The 2011 – 2020 European strategy on biodiversity

On 17 December 2011, the Secretary General of the United Nations officially dedicated the 2011-2020 decade to the protection of biodiversity. During this long period, the governments of the member states will be invited to develop and implement initiatives in favour of biodiversity and keep public opinion informed of the results achieved. To support this extraordinary plan for the protection of biological diversity on the continent, the European Commission has drawn up the references strategies, contained in the Communication dated May 2011: *Our life insurance, our natural capital: an EU biodiversity strategy to 2020*.

The six priority objectives envisaged by the European strategy are:

1. Encouraging the implementation of legislation regarding the environment;
2. Restoring the ecosystems, for example using green infrastructures;
3. Providing incentive for Sustainable Agriculture and Forestry;
4. Providing incentive for Sustainable Fishing;
5. Combating Invasive Alien Species;
6. Contributing to the stop of the loss of Biodiversity at global level.

These guidelines have been promptly acknowledged in Italy, even if still in a preliminary form, with the Decree dated 6 June 2011 which established: the Joint Committee for biodiversity; the National Monitoring centre for biodiversity and a Round Table for consultation.

For further details, see the website of the Department of the Environment.

The exchanges which enhance

The company wished to be present at the most important conferences, seminars and round tables which were held during 2011 in Italy on the subject of the environment and its protection. On such occasions, Acea wished to share the experience gained over the years in the various sectors of operations, including the most recent technological experiments (i.e. smart grids) and

was able to draw on stimulus and suggestions for continuing to improve. Among the numerous initiatives in which it was involved, Acea continued during the year to participate in the CAT-MED project, which Rome and another 10 cities in the Mediterranean area took part in, with the aim of achieving "Sustainable districts" (see related box).

Box – Acea within the sphere of the CAT-MED 2011 project

The CAT-MED (Changing Mediterranean Metropolises Around Time) project - launched in 2009 upon the request of the Civil Authorities of Malaga with the aim of identifying initiatives for **reducing the environmental impact of urbanisation and limiting greenhouse gas emissions** - continued during 2011. The initiative involved another 10 cities in the Mediterranean area besides Malaga: Barcelona, Valencia, Seville, Marseille, Aix en Provence, Salonicco, Athens, Genoa, Turin and Rome, which adopted a common route to draw up shared strategies. The activities envisage the **involvement of the main stakeholders present in the area**, brought together in "metropolitan work groups", each involved in drawing up original operating solutions, with the aim of preparing a method-based **guide for the effective creation of "Sustainable neighborhoods"**.

Acea, at the request of the Public Administration Authorities, is an **active part of the metropolitan work group** for Rome and has provided its contribution during the work carried out in the year which concerned the development in experimental form of a number of innovative, high-profile environmental solutions in a pilot neighborhood identified in each of the cities taking part.

Other information on <http://www.catmed.eu>

Environmental Management

The Group's main production plants have long been equipped with Environmental management systems compliant with the UNI EN ISO 14001:2004 standard, which ensures compliance with the best operating practices recognised at international level. This involves a commitment to continually improve by means of monitoring the impacts, preventing environmental pollution and minimising the associated risks, in accordance with the **Group's Environmental Policy**.

After the usual assessment activities performed by the appointed Bodies, all the active **Certifications** and European **EMAS** registrations were **confirmed in 2011**, concerning:

- the main **thermoelectric and hydroelectric plants**;
- the two **San Vittore and Terni waste-to-energy plants**;
- the **Orvieto MSW treatment and disposal plant**;
- a number of **water companies**.

Furthermore, during 2011 **Acea Reti e Servizi Energetici**, the

Group Energy Service Company, obtained UNI EN ISO 14001:2004 standard certification. Additional information can be found on the certification of all the Group companies in the *Corporate identity section* (under *Management systems*).

Despite the seriousness of the commitment made by all 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 2011, Group companies received a total of **around 160 monetary** fines for a cumulative value of **Euro 473,731** (of which Euro 396,993 relating to Acea Ato 2, Euro 12,500 relating to Umbra Acque, Euro 25,764 relating to Acque and Euro 38,474 relating to Publiacqua).

“Environmental expenditure”

“**Environmental expenditure**” is defined in the Recommendation of the European Commission 2001/453/CE, as: “*the cost of steps taken by an undertaking or on its behalf by others to prevent, **preventing, reduce or repairing damage to the environment which results from its operating activity***”.

In agreement with this definition and limited to just the Group companies which already avail of an environmental accounting system (around 90% of the total), 2011 environmental expenditure amounted to around **Euro 99 million**, divided up between investments and current expenses, up considerably with respect to the Euro 68 million in 2010.

Table No. 67 – ENVIRONMENTAL EXPENDITURE OF THE MAIN OPERATING COMPANIES (2010-2011)

(millions of Euro)

Group companies	investments		current expenditure	
	2010	2011	2010	2011
Acea Produzione	6.50	13.59	6.60	0.37
ARIA Group	0.41	0.01	1.10	6.10
Acea Distribuzione	0.41	0.38	0.48	1.44
Water Management (*)	46.20	72.00	6.50	4.90
total	53.52	85.98	14.68	12.81

(*) Acea Ato 2, Acea Ato 5, Publiacqua, Acquedotto del Fiara, Umbra Acque and Acque.

Boundaries

*This section deals with Acea Reti e Servizi Energetici, Acea Distribuzione, Acea Produzione and the A.R.I.A. plants. You are hereby reminded that during 2011, the winding up of the energy partnership AceaElectrabel created in 2002, defined in the Outline Agreement dated December 2010 between Acea and the partner GdF Suez Energia Italia, became operative. By virtue of this agreement, with regard to the electricity generation activities, Acea Produzione was formed (wholly-owned by Acea SpA); this company received the plant engineering and operating assets of the hydroelectric base and the turbogas plants of Tor di Valle and Montemartini, while the other plants, wind farms and shareholdings in Tirreno Power were sold off. **All the figures relating to the three-year period shown in the tables have consequently been recalculated to ensure comparability.***

The Acea Group is involved in the energy sector:

- 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 necessary for guaranteeing a reliable supply of energy is manifold and interconnected, starting off with the commitment made to ensure the quality and inexpensiveness of the production phase. In fact, problems co-exist at the electricity generation plants, partly of an environmental nature, linked to the choice of the primary sources and the methods for

running the plant, partly of a social nature, due to the inevitable mistrust of the resident population with regard to the presence in the area of large industrial installations, in part linked to the management economy (maintenance, modernisation, technological innovation, etc.). The support of a well-scaled and regularly functioning distribution network is also indispensable. In order to obtain the expected results, each operator, in the business segment entrusted, must therefore ensure the maximum contribution. Acea is aware of the complexity of the challenge and invests so as to deal with its suitably, with modern technological plants, networks and efficient infrastructures, as well as motivated and competent staff.

Energy generation: fossil and renewable energy sources

Generation and the Group plants

Following the winding-up of the joint-venture between Acea and GdF Suez Energia Italia, operative in 2011, Acea Produzione, whose share capital is 100% held by Acea SpA, manages two thermoelectric plants located in the City of Rome area: 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 numerous photovoltaic installations, installed in central-southern Italy, for a total of 52 MW and two waste-to-energy plants located in San Vittore del Lazio and Terni, for total power of 25 MW in 2011, destined to double in the next 12 months, once the revamping work underway has finished.

Total electricity production in 2011 came to **around 544 GWh**, compared with 822.6 GWh in 2010. The marked decrease is essentially due to the minor production of the Tor di Valle plant (17.75 GWh produced in the year compared with 176.3 GWh in 2010), consequent to the trend in market prices unfavourable for this type of plant, and the plant shutdown of two hydroelectric installations due to revamping work (see *Environmental accounts*, page IV).

In detail, **installed power and production from photovoltaic sources more than doubled** between 2010 and 2011, thanks to the hefty investment plan implemented by Acea over the last few years. The main constructions during 2011, seen to by Acea Reti e Servizi Energetici, include PV installations on the roof of an Acea Ato 5 warehouse (FR), constructed after the complete

clearing of the existing roof made of asbestos cement (69.5 kWp), the plant at the Elsa Morante cultural centre in Rome (17.6 kWp) and the ground installation at Giuliano di Roma (2.5 kWp), in the province of Frosinone. Energy generated overall during the year from solar sources (51.6 GWh⁹) corresponds to the requirements of around 17,000 households¹⁰⁸.

Generation **from waste-to-energy activities**, equating to over **149 GWh**, although up with respect to the previous year, is still lower than potential, due to the continuation of the revamping

work started in 2010 at the Terni plant. Half this generation is **renewable** since it is associated with the combustion of the biodegradable fraction of MSW in fact equal to 50% of the total.

At the Tor di Valle thermoelectric plant, furthermore, **thermal energy** was also generated for around **85 GWh**, used to serve the customer base of around 25,000 inhabitants in the south of Rome (Mostacciano, Torrino, Mezzo Cammino) by means of a dedicated district heating network.

Table No. 68 – ENERGY PRODUCED, BROKEN DOWN BY PRIMARY ENERGY SOURCE (2009-2011)

[TJ (GWh) (*)]	2009	2010	2011
primary energy source			
gas oil	11.05 (3.07)	10.12 (2.81)	16.85 (4.68)
natural gas (combined cycles and co-generation)	647.3 (179.8)	634.7 (176.3)	63.9 (17.7)
waste to energy	568.4 (157.9)	452.2 (125.6)	537.8 (149.4)
total thermoelectric + WtE	1,226.8 (340.8)	1,097.0 (304.7)	618.6 (171.8)
hydroelectric	1.757.2 (488.1)	1.799.0 (499.7)	1.155.2 (320.9)
photovoltaic solar	12.6 (3.5)	65.4 (18.2)	185.8 (51.6)
total renewable (excluding WtE portion)	1.769.8 (491.6)	1.864.4 (517.9)	1.341.0 (372.5)
total renewable (including the WtE portion equating to 50% of the total)	2.054.0 (570.5)	2.090.4 (580.7)	1.609.9 (447.2)
grand total	2,996.6 (832.4)	2,961.4 (822.6)	1,959.6 (544.3)

(*) 1 GWh = 3.6TJ

¹⁰⁸ Considering an average consumption per household in the province of Rome of around 3,000 kWh per year.

Table No. 69 illustrates the primary sources used, expressed in energy terms. It can be noted that in the last three years, the incidence of the solar source has progressively increased, demonstrating the technological maturity achieved by the conversion systems available on the market now capable of generating electricity with average efficiencies of around 14-15%. The ratio between total electricity generated, indicated in table No. 68, and the potential energy from primary sources

used (table No. 69) reveals an **average conversion efficiency** of around **37%** in 2011.

Table No. 70 and the following fact sheets provide a description of the Group's thermoelectric and hydroelectric plants. The waste-to-energy and photovoltaic plants are by contrast described in the pertinent sections. Please refer to the Environmental accounts for further information.

Table No. 69 – POTENTIAL ENERGY, BROKEN DOWN BY PRIMARY ENERGY SOURCE USED (2009-2011)

[TJ (GWh) (*)]	2009	2010	2011
primary energy source			
gas oil	42.0 (11.7)	39.0 (10.8)	64.4 (17.9)
natural gas (combined cycles and co-generation)	1.818.1 (505.0)	1.542.8 (428.5)	197.6 (54.9)
waste to energy	2,524.3 (701.2)	2,227.7 (618.8)	2,378.2 (660.6)
hydroelectric	2,094.1 (581.7)	2,122.2 (589.5)	1,370.5 (380.7)
photovoltaic solar	90.0 (25.0)	468.0 (130.0)	1,326.6 (368.5)
grand total	6,568.5 (1,824.6)	6,399.7 (1,777.6)	5,337.3 (1,482.6)

(*) 1 GWh = 3.6TJ

Table No. 70 – ACEA PRODUZIONE ELETTRICITÀ 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) gas oil 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
grand total: gross output 345 MW	

(*) 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 Torrino Sud 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 ³
available head (from concession)	40.29 m
maximum derivable delivery	25 m ³ /s
gross electricity produced in 2011	23.48 GWh

G. Marconi plant (Terni)

plant type	run-of-river water
type of use of energy produced	coverage of basic needs
rated output	20 MW
capacity of the basin or reservoirs interlocked	6 million m ³
available head (from concession)	11.45 m
maximum derivable delivery (from concession)	180 m ³ /s
gross electricity produced in 2011	67.24 GWh

G. Ferraris in 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 ³
available head (from concession)	27.15 m
maximum derivable delivery (from concession)	30 m ³ /s
gross electricity produced in 2011	15.32 GWh

Sant'Angelo plant (Chieti)

plant type	reservoir
type of use of energy produced	coverage of basic needs
rated output	58.4 MW
capacity of the basin or reservoirs interlocked	
Bomba	83.30 million m ³
Casoli	21 million m ³
available head (from concession)	141.20 m
maximum derivable delivery (from concession)	40 m ³ /s
gross electricity produced in 2011	153.72 GWh

Salisano plant (Rieti)

plant type	run-of-river water (acqueduct)
type of use of energy produced	coverage of basic needs
rated output	24.6 MW
available head	85.94 m
Capore	85.94 m
Peschiera	242.50 m
maximum derivable delivery (from concession)	
Capore	5.5 m ³ /s
Peschiera	10 m ³ /s
gross electricity produced in 2011	58.24 GWh

HYDROELECTRIC PRODUCTION - MINOR PLANTS

Cecchina (Rome)

plant type	run-of-river water (acqueduct)
type of use of energy produced	coverage of basic needs
rated output	0.4 MW
maximum derivable delivery (from concession)	1.1 m ³ /s
available head (from concession)	30 m
gross electricity produced in 2011	1.26 GWh

Madonna del Rosario (Terni)

plant type	run-of-river water (acquedotto)
type of use of energy produced	coverage of basic needs
rated output	0.4 MW
maximum derivable delivery	0.825 m ³ /s
available head (from concession)	43 m
gross electricity produced in 2011	1.66 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	
turbogas No. 1	41.04 MW
turbogas No. 2	41.04 MW
gruppo a vapore	43.6 MW
plant surface area	35,000 m ²
chimney stack height	30 m
quantity of fuel consumed in 2011	2,289 kNm ³
gross electricity produced in 2011	9.71 GWh
total gross efficiency in 2011	40.69%

Montemartini plant (Rome)

fuel type	gas oil (diesel)
type of use of energy produced	with low sulphur content coverage of peak needs
rated output of a.c. generators	
turbogas n. 1	26.1 MW
turbogas n. 2	26.1 MW
turbogas n. 3	26.1 MW
chimney stack height	1 x 13.35 m + 2 x 20 m
quantity of fuel consumed in 2011	1.82 MI
gross electricity produced in 2011	4.68 GWh
total gross efficiency in 2011	26.09%

Tor di Valle plant - co-generation (Rome)

fuel type	natural gas
type of use of energy produced	coverage of basic needs (electricity) and district heating (thermal energy)
rated output of a.c. generators	19.32 MW _e
chimney stack height	20 m
quantity of fuel consumed in 2011	2,956 kNm ³
gross electricity produced in 2011	8.05 GWh
total gross efficiency in 2011	
only electricity	25.94%
with heat recovery	73.63%

The figures concerning the installed capacity, by energy source, indicated in table No. 71, disclose a progressive increase in **photovoltaic-solar** in the primary energy mix. The decrease in hydroelectric power is by contrast due to the temporary plant

shutdown of the Salisano (RI) and Marconi installations for revamping work which will conclude during the first half of 2012.

Table No. 71 – GROUP INSTALLED ELECTRIC POWER BROKEN DOWN BY ENERGY SOURCE (2009-2011)

(MW)	2009	2010	2011
primary energy source			
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	20	25(*)
hydroelectric	139.3	139.3	121.7
photovoltaic solar	17	25	52
grand total	399.5	407.5	421.9

(*) In 2011, the Terni plant was shut down following the continuation of revamping work, therefore it is not considered in the calculation of the installed power. With regard to the San Vittore del Lazio plant, the two lines constructed recently were considered, for a total of 24 MW of power.

The availability indexes for Acea Produzione plants by plant and the average output in the last three years, confirmed as positive

on average, are shown in tables 72 and 73).

Table No. 72 – AVAILABILITY INDEXES FOR ACEA PRODUZIONE PLANTS (2009-2011)

energy source	plant	overall availability			scheduled unavailability			unscheduled unavailability		
		2009	2010	2011	2009	2010	2011	2009	2010	2011
natural gas										
	Tor Di Valle (combined cycle - CCGT)	69.7	89.5	95.2	6.8	5.6	0.0	23.5	5.0	4.8
	Tor Di Valle (co-generation section)	86.0	89.1	99.2	3.0	1.3	0.8	11.0	9.6	0.0
gas oil										
	Montemartini	79.0	91.4	99.9	15.2	1.9	0.0	5.8	6.7	0.1
hydroelectric										
	Salisano	98.8	99.4	37.1	1.1	0.4	62.9	0.1	0.2	0.0
	Sant'Angelo	91.1	86.9	86.9	6.9	3.7	8.4	2.0	9.4	4.6
	Orte	94.3	99.0	69.3	5.0	0.9	30.6	0.7	0.1	0.1
	Castel Madama	99.5	97.0	99.4	0.4	2.1	0.5	0.1	0.8	0.2
	Mandela	99.2	95.3	97.5	0.1	1.9	0.3	0.7	2.8	2.2
	minor installations	91.4	67.7	94.7	0.1	0.01	0.1	8.5	32.3	5.2

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 72:

- **overall availability (%)**: this index refers to the period in which a plant or section thereof is available to produce energy, including times in which it is available even though it is not operational due to electricity market needs. This index is the ratio between the amount of energy available – which is the difference between the maximum amount of energy that can be generated and unavailable energy (see below) – and the maximum amount of energy that can be generated that month.

- **scheduled unavailability (%)**: this index refers to the period in which a plant or section thereof was unavailable due to scheduled events (maintenance, etc.). This index is the ratio between the amount of energy unavailable during the scheduled event and the maximum amount of energy that can be generated that month.
- **unscheduled unavailability (%)**: this index refers to the period in which a plant or section thereof was unavailable due to fault. This index is the ratio between the amount of energy unavailable during fault and the maximum amount of energy that can be generated that month.

Table No. 73 - AVERAGE OUTPUT OF THE ACEA PRODUZIONE PLANTS (2009-2011)

plant	average output		
	2009	2010	2011
Tor Di Valle (combined cycle - CCGT)	38.2	42.8	40.7
Tor Di Valle (co-generation section)	68.6	74.9	73.6
Montemartini	26.3	25.9	26.1
Salisano	85.8	85.9	85.8
S. Angelo	79.0	79.0	79.0
Orte	98.6	98.6	98.6
Castel Madama	82.7	82.7	83.0
Mandela	91.4	91.4	91.4
minor installations	60.2	56.2	74.0

NB: average output is the ratio between gross energy produced and potential energy from the primary source.

Waste-to-energy activities

Waste Derived Fuel (WDF) is the result of a complex process for the separation, processing and recombination of municipal waste which from an initial 100 kg of waste material leads to around 50 kg of fuel which can be used to produce energy.

WDF production contributes towards the creation of integrated policies for the handling of waste, assigning it to recovery rather than disposal in landfills. Furthermore, the waste-to-energy treatment of the combustible component of municipal waste is not an alternative to separately waste collection, since it envisages the predominant use of materials which cannot be assigned for recycling. The waste-to-energy process, classified purposefully under recovery operations (R1 - enclosure C, Italian Legislative Decree No. 205 dated 3 December 2010), is therefore a rational end to the waste disposal cycle, advantageous for the handling of the organic materials which remain from the recovery of the material.

The Acea San Vittore del Lazio (FR) plant in fact uses WDF (now defined as Secondary Solid Fuel by Italian Legislative Decree No. 152/2006) and performs a significant role for the handling of municipal waste in the Lazio Region, formalised in 2010 and published by means of the "Waste Management Plan". During 2011, waste-to-energy activities **produced around 149 GWh** of gross electricity using just part of the treatment capacity which will be available when fully up and running, once the enhancement work launched around two years ago will be completed. As from 2013, the plant will be made up of three waste-to-energy treatment lines authorised to treat around 300,000 tons of WDF a year, with the possibility of treating up to 50,800 tons of sludge a year deriving from waste water treatment activities, at constant permitted maximum total

quantities. At present, one of the three lines is out of service for work, while the other two, completely new, entered into service in April and July 2010, respectively. The plant has implemented environmental management system compliant with both the **UNI EN ISO 14001:2004** standard and the European **EMAS** Regulation, with the aim of continually monitoring the overall environmental performances and reducing, where possible, the significant environmental impacts, which are already at the minimum level technically possible.

Table No. 74 – SAN VITTORE DEL LAZIO WASTE-TO-ENERGY PLANT: PLANT RUNNING FIGURES (2011)

WDF burnt (*) (t)	158,450.52
gross electricity produced (GWh)	149.43
electricity capacity (**)(%)	22.0
recovery capacity (***)(MWh/t)	0.94

(*) Together with the WDF, the plant uses natural gas (2,713,153 Nm³ in 2011) 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. (Lower heating value of the waste considered conventionally as 15,000 kJ/kg).

(***) Ratio of gross electricity produced to quantity of waste treated.

The Terni plant, made up of the single waste-to-energy line with a potential of 52 MW_e, by contrast 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. It is currently down due to the execution of revamping work which will conclude in 2012.

Box – SAO: sustainable handling of waste

SAO (Servizi Ambientali Orvieto), operates in the environment sector and owns:

- the waste treatment, recovery and disposal plants located in Orvieto (TR), Pian del Vantaggio area (formerly Le Crete), comprising a landfill for non-hazardous waste and a selection, cleansing and composting plant;
- municipal hygiene services: collection and transportation of municipal solid waste, sweeping and cleaning of roads for the municipalities situated 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.

The company has planned the restructuring and functional reorganisation of the quality compost, waste recovery and treatment production plant for 2012, with the implementation of a **new co-generation section** for the production of electricity from the anaerobic digestion of the organic fraction for an output of around 998 MW.

SAO operated in accordance with an integrated Environment and Safety Management System; During 2011, it passed the audits for the confirmation of **UNI EN ISO 14001:2004** standard environmental certification and that for safety as per the **OHSAS 18001:2007** standard. Furthermore, in September 2011 it obtained registration of **EMAS** certification.

Energy distribution: networks and smart grids

Distribution networks

Acea Distribuzione, an Acea Group company, is the holder of the thirty-year Ministerial concession for the management of the electricity distribution network serving Rome and Formello, covering around 29,000 km, with roughly 2.7 million inhabitants served. 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. 75 shows the main plant figures.

Energy losses on the distribution network, due above all else

(for the technical component) to the Joules effect in the conductors, come to **around 6.2%** of total energy conveyed, in line with the average value in Italy (see the *Environmental accounts*). During 2011, Acea Distribuzione carried out a network study regarding the **optimisation of the operating layout of the medium voltage network** which revealed the possibility of **obtaining recovery of around 17%** of the technical energy losses (see box relating to DigSILENT PowerFactory under *Customers and the community - quality supplied energy area*).

Table No. 75 – OVERHEAD AND UNDERGROUND DISTRIBUTION LINES AND PLANTS: NUMBERS (2009-2011)

type	2009	2010	2011
plants and outputs			
HV/HV - HV/MV primary sub-stations (No.)	68	68	68
HV/HV and HV/MV transformers (No.)	170	173	174
power transformation (MVA)	7,623	7,623	7,693
secondary sub-stations running (No.)	12,896	12,982	12,979
MV/MV - MV/LV transformers (No.)	12,436	12,567	12,671
transformation capacity (MVA)	4,547	5,750	5,845
overhead and underground networks			
high voltage networks - overhead lines (km)	372	372	372
high voltage networks - underground lines (km)	241	241	241
medium voltage networks - overhead lines (km)	499	494	488
medium voltage networks - underground lines (km)	9,336	9,526	9,705
low voltage networks - overhead lines (km)	1,708	1,697	1,689
low voltage networks - underground lines (km)	16,860	16,997	17,148

Box – Future developments for the City of Rome electricity network

The Memorandum of understanding for the reorganisation of the high (150 kV) and very high (220 and 380 kV) voltage distribution and transmission network, in its updated version as of 17 March 2010, was drawn up by Acea Distribuzione together with Rome City Council and Terna SpA and was signed in agreement by the Lazio Regional Authority, Ente Parco Regionale di Veio, Romanatura and Department X of Rome City Council. It 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 pre-consultation stage having been completed, during 2011 steps were taken to activate the procedure for obtaining the authorisation for constructing and running the plants.

With regard to the projects relating to the quadrants to the north of Rome area, therefore, in June 2011 the Environmental Impact Study and Projects was filed care of the Lazio Regional Authority so as to obtain the compatibility opinion pursuant to Article 13 of Italian Legislative Decree No. 4/2008 concerning the Environmental Impact Assessment (EIA) and, in September, a request was forwarded to the same institutional body for departure from the protection measures as per Regional Law No. 29/07.

With regard to the projects relating to quadrants in the south of Rome, following refusal of authorisation by one of the parties responsible for the protection of the environment, a new project was drawn up and, on the basis of the latter, a new application for the EIA was forwarded in November, on the same basis as that described for the quadrants in the north; in January 2012, an identical request was made for obtaining the departure from the protection measures.

The objective is to obtain the prescribed authorisations and commence work during 2012.

Smart grid

In November 2010, Acea Distribuzione presented the AEEG with a smart grid project, which was chosen and included among the pilot projects receiving incentives¹⁰⁹ (see related box).

The pilot project, which will have an overall cost of around Euro 4.9 million, concerns a network already operating in the Malagrotta-Ponte Galeria area; it was launched in January 2011 and is expected to be completed by the end of 2012; the related box illustrates the stage of completion and the work carried out during the year for each of the 6 main sections.

Box – Acea Distribuzione’s Smart grid pilot project: progress report 2011

Acea Distribuzione’s Smart grid project is divided up into the following 6 main sections:

- 1. MV network automation** (evolved automatic selection of section fault; handling of the distributed generators - remote tripping and calibration change) – during 2011, the **installation of the field apparatus was completed and the evolved automation was brought into service** on a distributor within distributed generation; in the second phase, the MT distributors with distributed generation will also be involved. The stage of completion at year end was **85%**.
- 2. monitoring of MV and LV network** (acquisition of electricity and environmental parameters on the MV and LV network).
- 3. new criteria for managing the MV network** (load flow management; optimisation of the voltage profiles; minimisation of the losses) – for sections 2 and 3, the **detailed specifications of the applications envisaged in the project were completed** during the year. The functions defined will be developed and implemented in the field during 2012. The respective stages of completion at the end of 2011 were **45%** and **35%**.
- 4. e-car & storage** (smart storage; MV network management and control system with interface for photovoltaic plant, electric vehicle and thyristor voltage regulator -TVR) – during the year, **the first phase of the project was completed with the installation of the storage system co-ordinated with the photovoltaic plant and recharging stations**. The interface with the centre of that already installed in the field is envisaged in 2012, together with the installation of the TVR device with the related interface towards the centre for the regulation of the voltage on the MT distributor. The stage of completion at year end was **75%**.
- 5. primary station diagnostics** – with regard to the diagnostics of primary station, the aspects envisaged both with regard to the field and centre were completely installed; the testing and streamlining stage for the system will conclude in the first few months of 2012. The stage of completion at year end was **95%**.
- 6. identification of the trigger point for transitory faults** – the **field installation phase has concluded** and the installation at the centre for the identification of the trigger point for transitory faults must be completed. The project envisages the end of the installations and the bringing into service by July 2012 and the monitoring phase by the end of December 2012. The stage of completion at year end was **90%**.

¹⁰⁹ Under Resolution ARG/elt 12/11, published in February 2011, the Gas and Electricity Authority disclosed the projects chosen for the experimental stage of the smart grids which have received incentives. They are 8 in total, for an overall investment of Euro 19.3 million.

Energy savings

Energy saving certificates and co-generation

In Italy, a very advanced legislative framework (Italian Ministerial Decree dated 20 July 2004 and Italian Ministerial Decree 21 December 2007) spurs operators in the energy sector to set themselves increasingly challenging energy savings targets. Thanks to the establishment of a reference market, the initiatives for improving energy efficiency are not only encouraged by means of tax breaks or capital grants but are also examined by the selection mechanisms based on the meeting of supply and demand. The increase in volumes of energy saved in the last 6 years is thus aided in the country, reaching around 3.6 Mtoe, 2.7% of total consumption.

The demand side of this market is represented by an **obligation to save** which the legislator has enforced on electricity and gas distribution companies. The latter must demonstrate the achievement of the savings they are assigned each year, proportionate to the volumes of energy distributed. The supply side is represented by effective savings, certified by the AEEG, achieved also with the contribution of specialised companies: the ESCO - Energy Service Companies.

The products traded on the market, regulated by the Electricity Market Operator (GME) via a dedicated electronic platform, are Energy Efficiency Certificates (Italian TEEs) or White Certificates, which nominally have a value of 1 toe each.

Box – The National Action Plan on renewable sources and the Acea Group ESCO

The Acea Group has taken steps to endow itself with its own ESCO: the company Acea Reti e Servizi Energetici, which supports Acea Distribuzione for the achievement of the annual savings targets and seizes the various opportunities offered by the subject of recovering energy efficiency, always relevant for the maintenance of the competitiveness of the production systems.

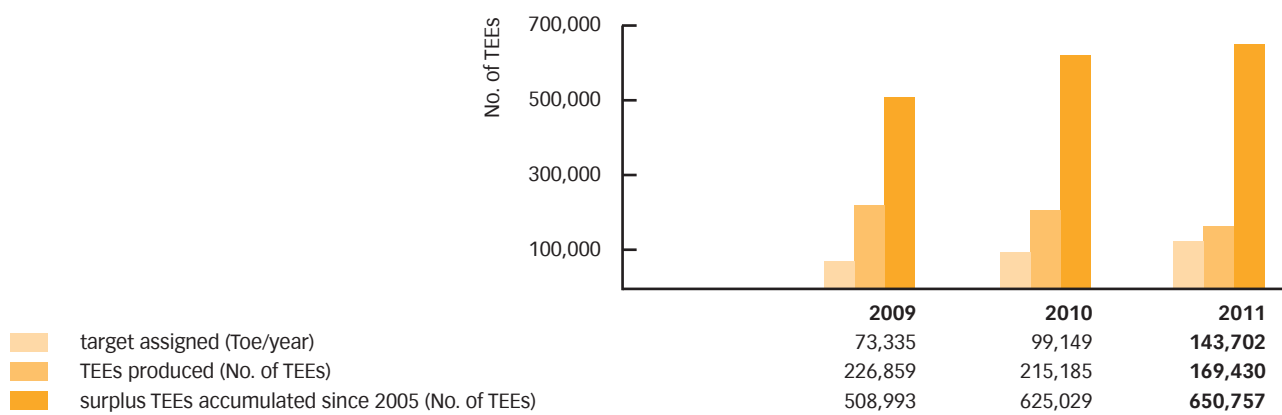
In June 2010, Italy in fact drafted the National Action Plan on renewable sources, with the aim of achieving the target (17% renewable portion) set for 2020 by EU Directive 2009/28/EC.

The Plan sets the maximum value of energy consumption which it will be possible to satisfy via renewable sources in 2020 as 22.3 Mtoe. This implies a national energy consumption target of 131.2 Mtoe, ($22.3/131.2 = 0.17$), essentially identical to gross end consumption in 2009. But the current trend suggests an exceeding of this target-limit by around 30 Mtoe, making a scenario of further incentive for energy saving initiatives likely in the next 8 years. The strengthening of the mechanism of white certificates, which turned out to be particularly effective over the past few years, is certain.

During 2011, **Acea Reti e Servizi Energetici** achieved certified savings of **143,702 toe** and thus not only **achieving the objective** assigned to Acea Distribuzione, on behalf of which it operates, but **went further** producing **a surplus of 25,728 TEEs** with a particularly brilliant performance because this was

achieved in a moment of scarce liquidity on the market. Thanks to the shrewd operating policies adopted from when it was first established in 2005, Acea Reti e Servizi Energetici has accumulated an availability of TEEs in excess equal to **650,757** destined to be sold (see chart No. 33).

Chart No. 33 – ENERGY SAVING TARGETS ASSIGNED TO ACEA DISTRIBUZIONE, SURPLUS AND PRODUCED TEEs (2009 – 2011)



The activities which Acea Reti e Servizi Energetici is responsible for include the design and construction of **tri-generation plants**¹¹⁰ which produce electricity, heat and cooling energy, in a combined manner. In 2011, thanks to the subsidiary Ecogena, plants were created for around 2 MW, constructed in 2011 and brought onto stream at the beginning of 2012, which will join the 4.3 MW installed between 2009 and 2010.

Energy efficiency within the Acea Group

Acea is dealing with the subject of energy consumption, pursuing the aim of obtaining effective recoveries of efficiency in the various business spheres.

The availability of economic incentives offered by the Government has pushed the responsible Divisions even further so as to seek the best plant engineering solutions for the management of the most energy-hungry processes. During 2011, thanks to the connection and co-ordination work carried out by the Committee of Energy Managers, created in 2010 to improve the supervision of energy aspects, share experience and cases of excellence in the management of energy, an innovative approach to the subject of **purchases of equipment which consume energy** was proposed and launched in experimental form, passing from a choice based

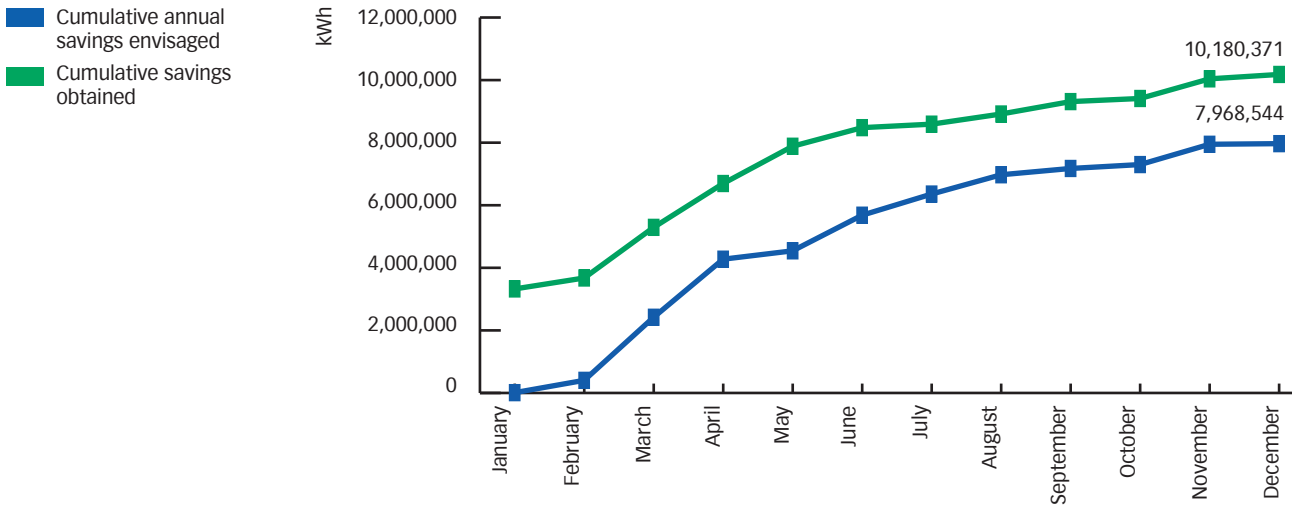
mainly on the lower purchase cost, to consideration and **assessment according to the principles of life cycle thinking**, of the **sum of the purchase cost and the discounted back cost of the electricity consumed during the running life of the equipment**. The new criteria, to be applied to equipment which has a heavy use of energy, such as office machines, systems driven by engines, etc., if on the one hand may complicate the traditional purchasing procedures and cause initial risks in the costs, on the other hand promise returns from an economic and environmental standpoint of a considerable extent over the mid term.

The Energy Managers of the Group companies, as envisaged, are therefore developing a new energy efficiency culture, which will not fail to produce positive results in the sectors of strategic interest for the Group - production and service-related.

Activities continued in 2011, aimed at recovering energy efficiency, with the completion of initiatives which led to a considerable commitments both in the project and executive stages. Of particular significance are the measures taken by the **operating companies in the Water Sector** which planned and implemented a complex **energy efficiency plan**, monitoring the progress thereof. Chart No. 34 illustrates **the results obtained, greater than the objectives for the year**.

¹¹⁰ Co-generation, in other words combined production of electricity and thermal energy, makes it possible to achieve high outputs: 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.

Chart No. 34 – WATER COMPANIES: OVERALL PROGRESS OF THE ENERGY EFFICIENCY PLANS (2011)



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.

Acea has managed the drinking water service in Rome since 1937 and has progressively extended its activities with the acquisition of the management of the integrated water cycle (collection, transportation, distribution and treatment) both in its traditional sector and in other areas. Today it manages the integrated water service (SII) in Optimum Areas of Operation (ATOs) which fall within four Italian regions - Lazio, Campania, Umbria and Tuscany - qualifying as national leader in the sector; it is also active abroad¹¹¹.

The customer base served overall in Italy comes to around 8.5

million inhabitants, with volumes of drinking water introduced onto the network of around 1,254 million cubic metres in 2011 (see chart No. 36).

In just ATO 2 - Central Lazio, including the city of Rome and another 111 Municipalities in the Province - of which 73¹¹² acquired under management as of 31 December 2011 - the volume of water introduced onto the network serving 3.7 million inhabitants, resident and floating population, came to around 599 million cubic metres (of which 471 million cubic metres on the "historic network" of Rome and Fiumicino).

Chart No. 35 – THE GROUP’S WATER DISTRIBUTION NETWORK IN ITALY (2011)

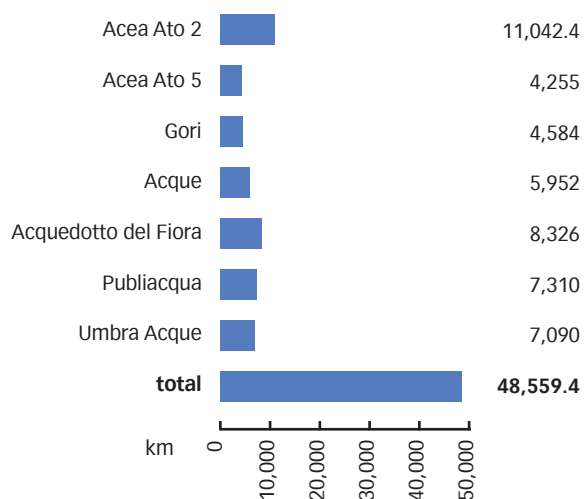
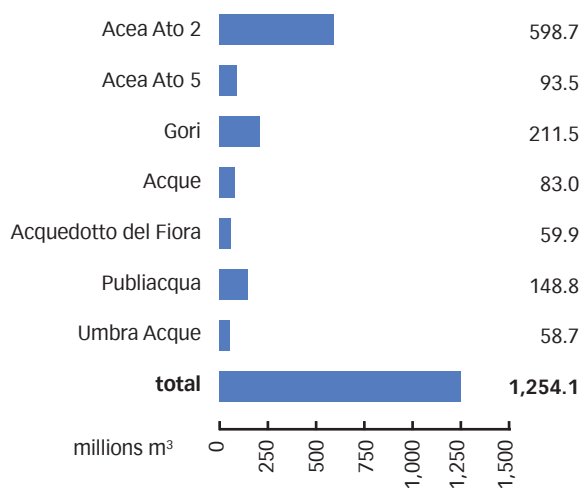


Chart No. 36 – VOLUMES OF DRINKING WATER INTRODUCED INTO THE NETWORK: TOTAL AND BY COMPANY (2011)



NB: the network includes aqueducts, transportation and distribution.

¹¹¹ 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 4.7%. On the basis of the GRI indicators, it was therefore established that a concise illustration would be provided in the section Activities abroad to which reference is made.

¹¹² In another 21 municipalities the SII was managed partially or other services were performed.

Activities in Central Lazio: springs and protected areas

The drinking water destined for Optimum Area of Operations 2 - Central Lazio, is withdrawn by Acea Ato 2 from the following springs thanks to long-term concessions: Peschiera, Capore, Acqua Marcia, Acquoria, Salone (Acquedotto Vergine), Vallepietra and Ceraso. Marginal integrations come from a number of well fields (Pantano Borghese, Finocchio, Torre Angela, Doganella; 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.

Another three sources of supply - the Traianee and Salone springs and the River Tiber - provide the non-drinking resource, which is treated and introduced onto the specific Rome distribution network dedicated to sprinklers in parks and gardens.

Table No. 76 – THE SPRINGS UNDER PROTECTION IN ATO 2 – CENTRAL LAZIO

sensitive area	location	surface areas (m ²)
Peschiera springs	Municipality of Cittaducale (Rieti, Lazio)	598,530
Le 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 Verginesprings	Municipality of Rome	500,000
Torre Angela wells	Municipality of Rome	50,300
Finocchio wells	Municipality of Rome	31,153

(*) 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.

NB: the preservation map of certain springs, in particular Vallepietra, Ceraso and the former Casmez wells, are being completed so as to then be submitted for the approval of the appointed Bodies. .

Water quality

The analytical checks on water distributed to customers are of fundamental importance due to the health repercussions which derive therefrom, thus each Group company directly implements monitoring plans on the quality of the drinking

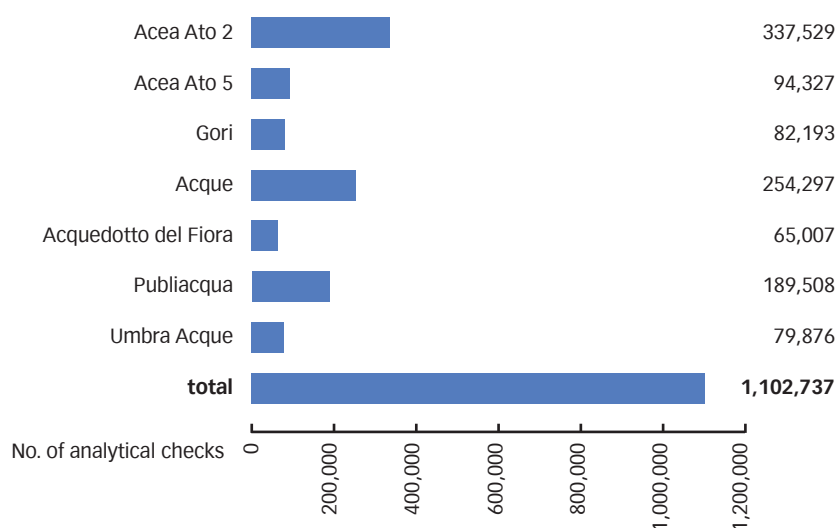
water provided and the waste water returned to the environment after treatment. The following tables No. 77 and 78 and the charts No. 37 and 38 provide a summary of the activities carried out in this sphere:

Table No. 77 – ANALYTICAL CHECKS ON DRINKING WATER: TOTALS AND BY COMPANY (2009-2011)

company	No. of analytical checks on drinking water		
	2009	2010	2011
Acea Ato 2 (*)	359,728	330,269	337,529
Acea Ato 5	74,396	74,309	94,327
Gori	86,650	82,801	82,193
Acque	240,998	228,485	254,297
Acquedotto del Fiora	55,286	61,001	65,007
Publiacqua	234,560	209,334	189,508
Umbra Acque	116,769	94,942	79,876
total	1,168,387	1,081,141	1,102,737

(*) The 2011 figure is net of around 5,000 controls carried out on field in Rome.

Chart No. 37 – ANALYTICAL CHECKS ON DRINKING WATER: TOTALS AND BY COMPANY (2011)



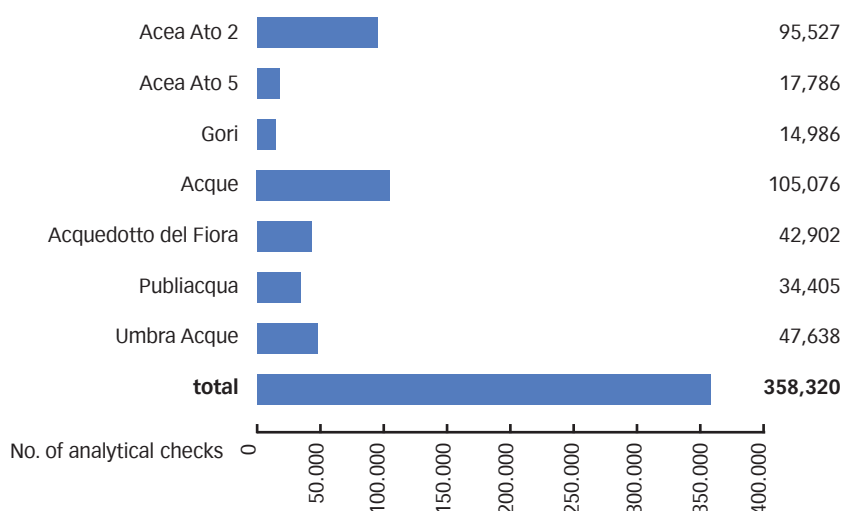
Current legislation on this subject for water intended for human consumption (Italian Legislative Decree No. 31/2001 and subsequent amendments and additions) identified a number of drinking water quality parameters (including arsenic and fluorine) and indicates the limit values. Specifically, the value established for arsenic in water destined for human consumption 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 (see also *Socio-economic relationships with the stakeholders*, section *Customers and the community – quality supplied*).

Table No. 78 – ANALYTICAL CHECKS ON WASTE WATER: TOTALS AND BY COMPANY (2009-2011)

company	No. of analytical checks on waste water		
	2009	2010	2011
Acea Ato 2	87,056	98,150	95,527
Acea Ato 5	27,358	28,383	17,786
Gori	13,886	15,979	14,986
Acque	94,395	103,239	105,076
Acquedotto del Fiora	24,841	31,699	42,902
Publiacqua	34,826	33,497	34,405
Umbra Acque	41,632	40,258	47,638
total	323,994	351,205	358,320

Chart No. 38 – ANALYTICAL CHECKS ON WASTE WATER: TOTALS AND BY COMPANY (2011)



Box – Arsenic and fluorine in the drinking water in a number of areas in Lazio: Acea Ato 2’s commitment

As Acea Ato 2 progressively acquires the management of the service in the area of Colli Albani and in the area of the Sabatini mountains, the rigorous analytical campaigns carried out on the sources and along the networks made it possible to establish that, in certain municipalities, the groundwater intended for human consumption is rich in undesirable mineral elements, especially arsenic, fluoride and vanadium. Therefore, steps were taken to carry out urgent corrective action so as to lower the concentration of these elements in the water distributed. Preliminarily, derogation applications were presented to the Lazio Regional Authority together with the recovery plans, previously approved and financed by the competent authorities (the Technical Secretariat STO of the ATO 2). The recovery plans represent the programme of action and structural measures for bringing the values of the chemical parameters of the water distributed within the legal limits, now more restrictive, by a set deadline. The population initially affected by the derogations amounted to around 100,000 inhabitants.

At present, the derogations - thanks to the measures already carried out - refer to a population of around 23,000 inhabitants for arsenic and around 27,000 for fluorine. The derogation measures, or rather the Decree of the President of the Lazio Region T0258 dated 29 July 2011 for arsenic and Italian Presidential Decree T0076 dated 11 March 2011 for fluorine, envisaged the re-establishment of the values fixed by Italian Legislative Decree No. 31/01 by 31 December 2012. In the meantime, the company is carrying out the work envisaged in the plans. At the same time, an information campaign was carried out addressing the population together with the municipal authorities, the local health authorities and the STO. The water supplier also created disbursement points distributed throughout the areas concerned where it is possible to obtain water compliant with Italian Legislative Decree No. 31/01, as well as distributed bottles of mineral water in schools. With regard to vanadium, the supplier has finished the construction of works for bringing the values back in line.

The Group companies operating in the water area undertake various initiatives for **communicating with their customers** regarding the subject of the quality of the water supplied and also so as to raise awareness of the correct use of the water resource, many of which are furthered via the respective websites and found therein (for some initiatives undertaken by Acea Ato 2 also see *The socio-economic relationships with the stakeholders page, section Customers and the community - communication*).

Quality of the water distributed in Rome

The city of Rome enjoys a situation of particular privilege with regard to the quality of the drinking water distributed on the

civil network. The **water in fact is very pure and has an excellent mineral level**, which make it a genuine *unicum* in the water sphere not only at national level.

Such quality must be maintained and special care is necessary for this, guaranteed by means of very accurate monitoring plans and **analytical checks**.

Accordingly, Acea relies on the support of external laboratories, meticulously chosen, and on the contribution of the Group company **LaboratoRI**, accredited for the performance of chemical-physical, chemical-organic and microbiological analysis on samples taken daily from the entire aqueduct system (see tables No. 79-81).

Table No. 79 – ANALYTICAL TESTS CARRIED OUT OVERALL IN ATO 2 - CENTRAL LAZIO (2009-2011)

type of water analysed	No. of analytical tests		
	2009	2010	2011
drinking water	338,974	305,258	313,804
waste water	87,056	98,150	94,557
surface water	35,920	35,387	36,413
total	461,950	438,795	444,774

NB: the figures refer to the analytical activities carried out by LaboratoRI.

Table No. 80 – ANALYTICAL TESTS ON DRINKING WATER – HISTORIC NETWORK OF ROME (2009-2011)

area of withdrawal	No. of withdrawal points	No. of samples			No. of analytical tests		
		2009	2010	2011	2009	2010	2011
collection	45	682	515	590	31,139	21,451	22,973
aqueduct and water pipelines	33	500	280	301	19,499	9,531	10,611
reservoirs/water centres	17	214	222	260	11,432	7,948	8,299
distribution networks	320	3,933	3,557	3,885	125,604	113,762	126,437
total	415	5,329	4,574	5,036	187,674	152,692	168,320

NB: the figures refer to the analytical activities carried out by LaboratoRI.

Table No. 81 – AVERAGE CHEMICAL AND MICROBIOLOGICAL FEATURES OF THE WATER DISTRIBUTED IN ROME AND ITALIAN LEGISLATIVE DECREE NO. 31/01 PARAMETERS (2011)

parameters	unit of measurement	average value of water distributed in Rome		legal parameter (Italian Legislative Decree No. 31/01)
			2011	
Turbidity	NTU		<0.5	without anomalous variations
Temperature	°C		12.8	not envisaged
Concentration of hydrogen ions	pH unit		7.44	>6.5 and <9.5
Electrical conductivity	µS/cm at 20°C		530	<2,500
Chlorides	mg/l Cl		7.24	<250
Sulphates	mg/l SO ₄		14.1	<250
Calcium	mg/l Ca		94.7	not envisaged
Magnesium	mg/l Mg		18.9	not envisaged
Sodium	mg/l Na		5.57	<200
Potassium	mg/l K		3.03	not envisaged
Water hardness	°F		31.4	(*)
Free residual chlorine	mg/L Cl ₂		0.14	(**)
Alkalinity	mg/L CaCO ₃		311	not envisaged
Fixed residual calculated	mg/l		379	(***)
Nitrates	mg/l NO ₃		3.55	<50
Nitrites	mg/l NO ₂		<0.05	<0.50
Ammonia	mg/l NH ₄		<0.10	<0.50
Fluorides	mg/l F		0.16	<1.50
Total organic carbon	mg/l C		0.30	without anomalous variations
Iron	µg/l Fe		5.46	<200
Copper	mg/l Cu		0.002	<1.0
Lead	µg/l Pb		0.23	<10
Cadmium	µg/l Cd		<0.2	<5.0
Chromium	µg/l Cr		<5.0	<50
Nickel	µg/l Ni		4.53	<20
Manganese	µg/l Mn		0.29	<50
Arsenic	µg/l As		2.11	<10
Vanadium	µg/l V		3.23	<50
Total trihalomethanes	µg/l		1.05	<30
Trichlorethylene	µg/L		<0.10	<10
Tetrachlorethylene	µg/L		<0.10	<10
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: 1500 mg/l.

The sewerage service and the treatment system

The management of the integrated water service includes the handling of the treatment system, indispensable for effectively closing the cycle for the withdrawal and use of water finally returning it to the environment.

The **sewerage network** via which the water used by Acea

Group customers is collected before treatment, extends by **over 23,800 km**, while the **treatment plants** number **834**, involving a total volume of **waste water treated** in 2011 of **about 936 million cubic metres**, in line with the 929 Mm³ in 2010 (see charts No. 39-41 and the *Environmental accounts*).

Chart No. 39 – SEWERAGE NETWORKS: TOTAL AND BY COMPANY (2011)

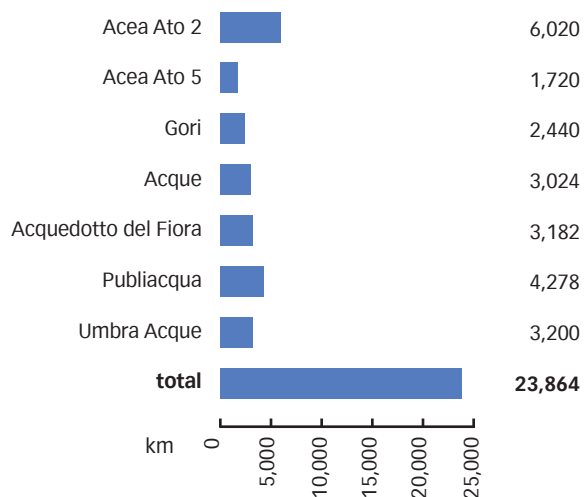


Chart No. 40 – TREATMENT PLANTS: TOTAL AND BY COMPANY (2011)

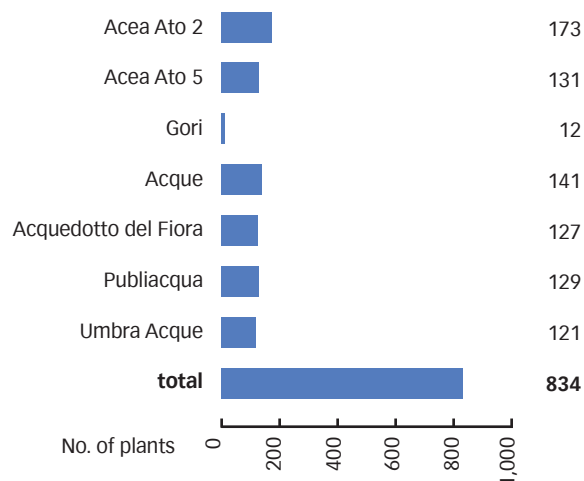
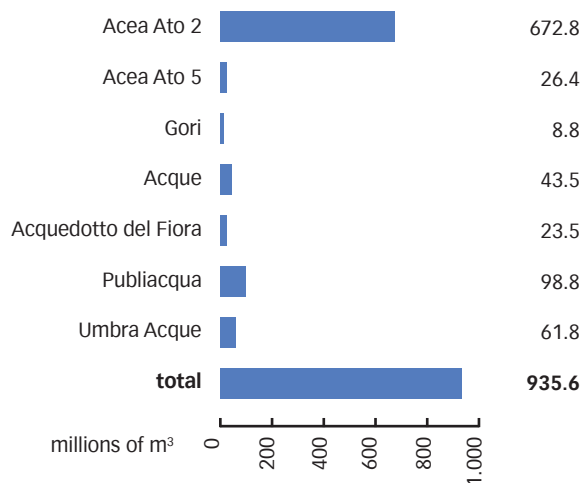


Chart No. 41 – VOLUMES OF WASTE WATER TREATED IN TOTAL AND BY COMPANY (2011)



The main treatment plants in the “historic” area of Rome and Fiumicino, treated a volume of water of **599 million cubic metres** in line with the 587 Mm³ in 2010. Also considering the minor treatment plants and those belonging to the municipalities acquired in ATO 2, a **total volume of more than 670 million cubic metres treated** is reached.

The “treatment efficiency” achieved in the plants makes it possible to maintain the values of the pollutant parameters in the outgoing treated water **within the limits envisaged by law**, with the exception of two slight anomalies reported at the Rome East, II Section treatment plant, due to maintenance work which is being completed. Table 82 illustrates the values of the main parameters leaving the treatment plants.

Handling of treatment sludge

The treatment of waste water essentially involves the removal of extraneous substances which accumulate in clean water as

Table No. 82 - PARAMETERS EXITING THE MAIN TREATMENT PLANTS MANAGED BY ACEA ATO 2 SPA – MUNICIPALITY OF ROME (2011)

	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)
parameter	average values (mg/l)					
BOD ₅	20	12	13	26	4	≤25
COD	83	44	34	81	40	≤125
TSS	25	14	12	36	5	≤35
nitrogen (ammoniacal, nitric and nitrous)	15	10	17	11	14	-
phosphorus	5	2	2	2	2	-
	absolute values (t)					
COD	29,426	4,735	7,871		1,106	-
TSS	8,744	1,440	3,702		144	-

a consequence of its use. These substances, once extracted and collected, are present in the form of sludge consisting of solid materials, finely divided up, mainly of an organic nature and liable to decay. Their handling is particularly critical both due to the quantity in question, always significant, and the chemical instability of the constituent materials which lead to very tangible risks for the emission of unpleasant smells.

Via the subsidiary company **Aquaser**, Acea has developed an **integrated system for the collection and subsequent use of sludge**, which makes it possible to transform the problem of disposal of this material into a business opportunity. In fact, operators in the **agricultural sector are reusing sludge as a replacement for fertilizers** by means of spreading on the ground, either directly or after the product has been sent to composting plants, capable of improving the corrective features thereof.

In 2011, Aquaser carried out the service for the transportation and recovery of treatment sludge for the majority of the Group water companies, as well as for two outside companies operating in Tuscany and Lazio, guaranteeing the eco-compatible handling of more than **200,000 tons** of waste used as follows:

- **4% direct spreading** in agriculture;
- **78% composting**.

The remaining 18% was sent for disposal since it was not recoverable.

The **composting** activities are carried out by two authorised plants. The first managed by Solemme SpA in Monterotondo

Marittimo (Grosseto), and the other managed by Kyklos Srl in Aprilia (Latina), both Acea Group companies. Their location, near to the water companies served, makes it possible to optimise the sludge management service, thereby containing the operating costs.

The two plants also play an important role for the recovery of organic waste activities both in Lazio and in Tuscany. Accordingly, the authorisation procedure for their extension was launched in 2010 and is still underway.

The **Kyklos** plant, with a current potential of 66,000 tons a year of compostable waste, **will be able to recover 120,000 tons a year when fully up and running**. The creation of a new anaerobic digestion section will make it possible to recover electricity and heat as well, exploiting the combustion of the resulting biogas.

The **Solemme** plant¹¹³ from the current potential of 26,100 tons a year of compostable waste, **may achieve 70,000 tons** a year, thanks to the construction of a new anaerobic digestion section.

With regard to the **handling of the physical flows** of the waste from production plants to composting plants, Aquaser has developed an original model for **remote monitoring** which with the use of advanced satellite technologies makes it possible to locate the containers in real time. At a second point in time, it will also be possible to remotely monitor their weight, significantly improving the levels of control throughout the organic waste collection, transportation and treatment chain, anticipating the national targets for an improvement of the traceability of waste envisaged by SISTRI¹¹⁴.

¹¹³ Achievement of the extension of the Solemme plant envisages an investment of around Euro 12 million to be achieved in 2012, as per the business plan. During the first few months of 2011, following the preliminary investigation carried out by ARPAT, it was communicated that the current plant does not present any criticalities from an environmental impact point of view.

¹¹⁴ The SISTRI - (the control system for the traceability of waste) - came about in 2009 as a result of the initiative of the Ministry for the Environment and Protection of the Territory and the Sea for making the computerisation of the entire special waste activity chain possible at national level (see www.sistri.it).

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, Publiacqua and Umbra Acque are included.

The saving of fundamental resources such as water and energy is an important objective for the Acea Group, which can only be achieved by virtue of a careful management of the company processes.

The commitments to contain the consumption of natural

resources, especially those not renewable, is motivated by the fact that the saving generates positive effects of an economic, social and environmental nature, representing the most effective example of that which we define "sustainable" activities.

Energy consumption

Tables 83-84 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 **energy used by the vehicle fleet**. Table No. 85 by contrast illustrates indirect energy consumption, mainly represented by **electricity consumption including the losses** which take place **during the distribution stage**, attributable to transformation and transport losses, fraud and erroneous metering.

In order to express the value of the energy indirectly used in terms of equivalent primary energy, a conversion factor has been considered equal to 37%, which corresponds to Acea 2011 generation efficiency. Imagining having used the Acea electricity plants to produce electricity consumed, one obtains:

$$\text{GRI-G3.1 indicator EN4} = 6,265.3 / 0.37 = 16,933 \text{ TJ}$$

Table No. 83 - ACEA VEHICLE FLEET CONSUMPTION (2009- 2011)

vehicle fleet consumption	2009	2010	2011
petrol			
l	913,102.67	980,754.41	639,227.8
kg	671,130	720,854	469,832
TJ	29.5	31.7	20.7
diesel			
l	954,709.13	788,809.71	566,066.1
kg	797,182	658,656	472,665
TJ	33.4	27.6	19.8

NB: the scope of consumption for the vehicle fleet includes Acea SpA, Acea Distribuzione, Acea Reti e Servizi Energetici, LaboratoRI, Acea Produzione, Acea Energia, Acea Ato 2 and Marco Polo.

Table No. 84 – THE ACEA GROUP’S DIRECT ENERGY CONSUMPTION (2009-2011)

[TJ (GWh) (*)]	2009	2010	2011
energy for electricity generation (a)	6,568.5	6,399.3	5,337.5
	(1,824.6)	(1,777.6)	(1,482.6)
energy for the vehicle fleet (b)	62.9	59.3	40.4
	(17.5)	(16.5)	(11.2)
energy per heating (c)	19.6	20.1	24.5
	(5.4)	(5.6)	(6.8)
total net electricity produced and sold (c)	2,795.8	2,763.4	1,815.1
	(776.6)	(767.6)	(504.19)
net thermal energy sold (e)	221.8	227.2	245.5
	(61.6)	(63.1)	(68.2)
total direct energy consumption EN3 = (a + b + c) - (d + e)	3,633.4	3,488.1	3,341.8
	(1,009.3)	(968.9)	(928.3)

NB: the figures for the three-year period include those of A.R.I.A., Acea Reti e Servizi Energetici, Acea Produzione.

(*) 1 GWh = 3.6 TJ

Considering that 1 TJ → approximately 23.9 toe, the **GRI-G3.1 EN3 indicator** = (3,341.8 x 23.9) = **79,869 toe**

Table No. 85 – THE ACEA GROUP’S INDIRECT ENERGY CONSUMPTION (2009-2011)

[TJ (GWh) (*)]	2009	2010	2011
electricity losses on the distribution and transportation networks	2,688.1	2,583.4	2,639.2
	(746.7)	(717.6)	(733.1)
losses and internal consumption for electricity production	200.9	198.4	144.7
	(55.8)	(55.1)	(40.2)
heat losses on the district heating network	58	77.8	59.0
	(16.1)	(21.6)	(16.4)
consumption for public lighting	543.1	567.9	582.0
	(150.9)	(157.7)	(161.7)
consumption for drinking and non-drinking water distribution (**)	1,749.2	1,673.3	1,736.3
	(485.9)	(464.8)	(482.3)
consumption for waste water treatment (**)	1,060.2	1,086.8	1,066.7
	(294.5)	(301.9)	(296.3)
energy consumption for the offices	42.0	37.2	37.4
	(11.7)	(10.3)	(10.4)
total indirect energy consumption	6,341.5	6,224.8	6,265.3
	(1,761.5)	(1,729.1)	(1,740.4)

NB: the figures for the three-year period include the consumption of A.R.I.A., Acea Produzione Acea SpA and the water companies included in the boundaries.

(*) 1 GWh = 3.6 TJ

(**) Consumption for distribution and treatment includes all the water companies within the reporting boundaries.

Water consumption

Group water consumption, which concerns both the industrial processes and civil use, shown in table No. 86, discloses a clear predominance of **consumption for the cooling** of the Tor di Valle thermoelectric plant. To mitigate the same, use is made of

water coming out of the adjacent Acea Rome South treatment plant, achieving an advantageous synergy between the two plants. For all the other **types of consumption**, Acea mainly uses aqueduct water.

Table No. 86 - ACEA GROUP WATER CONSUMPTION (2009-2011)

(Mm ³)	2009	2010	2011
Industrial processes: district heating and others for thermoelectric generation (*) (source: aqueduct, wells)	0.16	0.14	0.15
Non-industrial/sanitary use (source: aqueduct)	1.88	1.15	1.26
Cooling of thermoelectric plants (source: outflow from Rome South treatment plant)	37.07	34.70	6.69
total water consumption	39.11 (95% from recovery)	35.99 (96% from recovery)	8.10 (82% from recovery)

NB: the figures for the three-year period are reclassified according to Acea's shareholdings (now 100% in Acea Produzione); therefore, the consumption of Tirreno Power no longer appears since it is no longer in the Group.

(*) The process water used at the A.R.I.A. waste-to-energy plants is also included.

Water losses

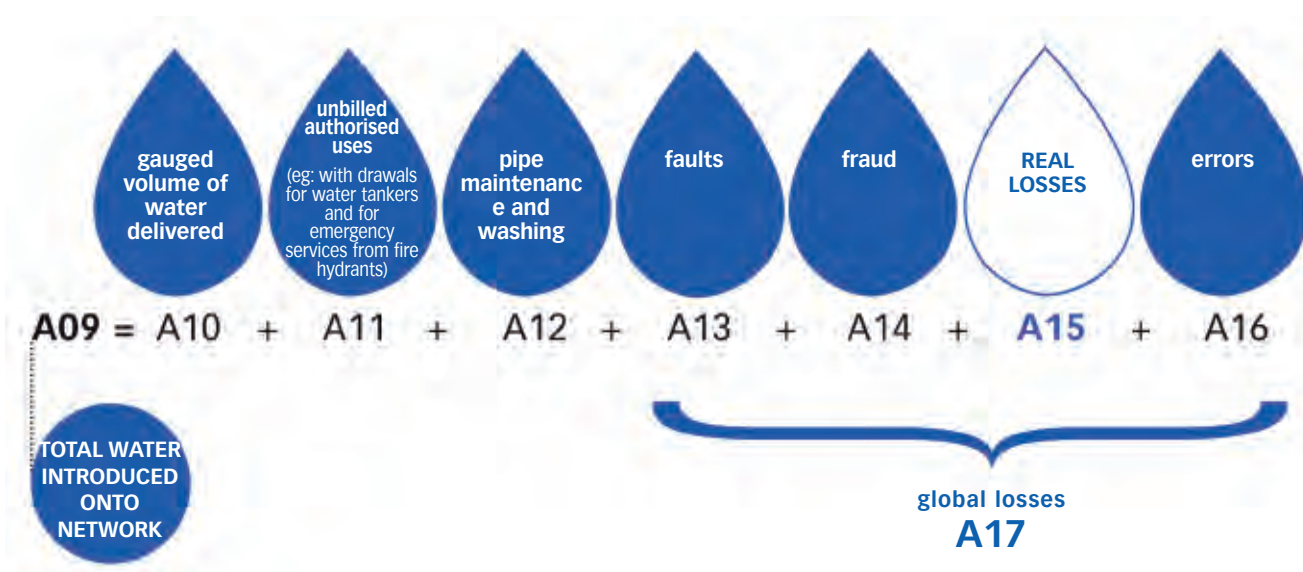
The dispersion of water which occurs in the aqueduct networks is a negative phenomenon with repercussions at economic level as well. In order to contain it at natural levels, the Group companies involve human resources and make considerable investments. By way of example, Acea Ato 5 (Frosinone) established an *ad hoc* work group in 2011 with the task of surveying the stretches of network to be replaced and checking the existence of potential areas of improvement.

Furthermore, the assessments of the water losses are not easy

to carry out. In order to render them comparable between the various operators, they are performed in **accordance with Italian Ministerial Decree 99/97** (see chart No. 42).

The **real losses**¹¹⁵ with reference to the historic network of Rome and Fiumicino, amounted to **around 25% of total water introduced onto the network**. With regard to the other water distribution networks managed by the Group, the **satisfactory performances of Acque (Pisa) are mentioned**, where the losses represent around 23% of the water introduced onto the network. See the *Environmental accounts* for further details on the individual water companies.

Chart No. 42 – REAL WATER LOSSES, PARAMETER A15 (ITALIAN MINISTERIAL DECREE No. 99/97)



¹¹⁵ 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, Publiacqua and Umbra Acque are included.

Emissions into the atmosphere

Emissions into the atmosphere from thermoelectric plants and waste-to-energy plants are monitored, if possible on an on-going basis, via specific analysers subject to periodic checks, by in-house staff and qualified external laboratories.

All the production plants operate in observance of formalised Environmental management systems and commit themselves to both cutting down the emissions of micro-pollutants (CO, NO_x and SO₂) and containing emissions of carbon dioxide (CO₂).

The carbon footprint of the electricity generation process using thermoelectric energy source fell considerably in 2011 in absolute terms - from around 123,000 tons of CO₂ in 2010 to roughly 35,000 tons (see table No. 88) - even if this is essentially due to a proportionate reduction in production volumes. At the same time, the specific emission indicator rose, measured by

the quantity of CO₂ emitted per electricity unit produced, passing from around 500 g/kWh in 2010 to 1,300 g/kWh in 2011. The main cause of the deterioration was the rise in the percentage of the portion of energy produced in the Montemartini plant, which since it is fuelled by gas oil, produces higher specific emissions naturally.

The two Acea thermo-generation plants of Tor di Valle and Montemartini are subject to the **Emission Trading Scheme**, therefore they must deal with the restriction of not emitting quantities of CO₂ greater than the quota 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. 87).

Table No. 87 – CO₂ EMISSION QUOTAS AS PER THE NAP AND EFFECTIVE EMISSIONS BY PLANT (2009-2011)

plants	CO ₂ emissions (t)					
	2009		2010		2011	
	assigned by NAP	effective	assigned by NAP	effective	assigned by NAP	effective
Tor di Valle	235,788	105,737	235,788	87,989	235,788	26,089
Montemartini	3,653	3,095	1,827	2,902	1,218	4,762

With regard to emissions of **CO**, **SO₂** and **NO_x**, micropollutants, the same comments made in relation to emissions of CO₂ are valid: in fact, a sharp decrease was seen in absolute values, while in specific terms an evident rise was observed.

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. 88 shows the total emissions of the Group, including those from vehicles and air-conditioning.

It should be emphasised, in conclusion, that the contribution to emissions from the waste-to-energy plant, particularly

Table No. 88 - TOTAL ACEA GROUP EMISSIONS (2009-2011)

(t)	2009	2010	2011
CO ₂	180,590	122,940	35,308
CO	68.880	67.340	33.340
NO _x	308.820	226.270	91.870
SO ₂	9.920	6.700	0.690

contained in 2011, should be placed in relation to the revamping and overhaul activities underway which led to the total shutdown of the Terni plant and just a few months of activities for the San Vittore plant.

Group vehicle fleet

From some year now, the Group has been committed to renewing the corporate vehicle fleet and reveals evident reductions in the consumption of fuel and the consequent emissions into the atmosphere.

The vehicle fleet amounted to around 2,300 vehicles, with a progressive lowering of the average age due to the introduction of latest generation vehicles. Specifically, during 2011, besides the Euro 4 vehicles, a **number of Euro 5 vehicles were purchased**, to replace the "older" ones and **Acea equipped itself with 40 electric vehicles** which supplement the traditional fleet.



¹¹⁶ Also see the Environmental accounts, section Vehicle and heating emissions page XVII.

Acea Group waste

Any activity, industrial or of single individuals, produces waste; but the effects of this rule, which everyone is obliged to observe, can be mitigated by the way in which the waste cycle is handled. The rules of good management are known: from the reduction upstream of quantities of waste produced, thanks to appropriate choices in terms of processes and materials, to separate collection of scrap, checking the recycling possibilities, and to the stage for the recovery or disposal of the waste, carried out respecting the traceability of the intermediate stages before reaching the end treatment plant. Acea follows these criteria as far as possible when creating systems and processes for the management of the waste produced.

The figures relating to waste produced in the various industrial processes are illustrated below, while for greater details reference should be made to the Environmental accounts (pages XIV-XVI).

In the **energy sector**¹¹⁷ a total of **1,676 tons of waste** – 1,072 tons of non-hazardous waste and around 604 tons of hazardous waste (see chart No. 43), without any particularly significant changes with respect to last year. The figures concern the companies **Acea Distribuzione** and **Acea Produzione**, with the conventional addition of the waste produced by the holding company Acea Spa allocated to the two areas equally (50%): Energy and Water.

The **waste-to-energy** activities mainly produce **ash and slag**, which in 2011 came in total to **25,937 tons**, of which 23,122 tons classified as “hazardous waste”.

The considerable increase in this type of waste - in 2010 around 9,000 tons - was due to the change in the CER code assigned to slag following the amendments introduced to the Environmental Consolidation Act.

The three-year trend figures reveal the decrease in quantities of waste, essentially due to the partial operations of the plants further to revamping activities being completed (see chart No. 44).

In the **water sector**¹¹⁸, which includes the main Group companies operating in the sector and conventionally 50% of

Chart No. 43 – GROUP WASTE PRODUCTION FOR THE ENERGY AREA (2009-2011)

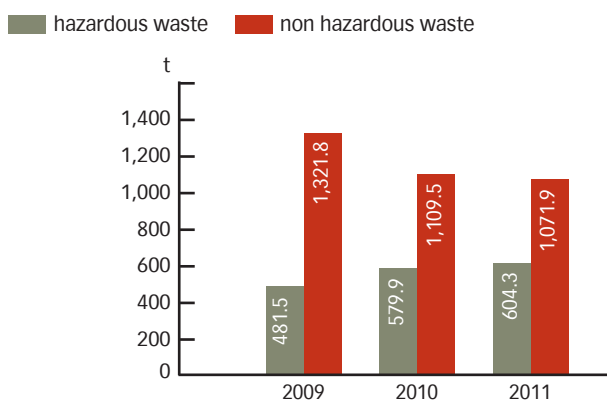


Chart No. 44 – PRODUCTION OF WASTE FROM THE WASTE-TO-ENERGY PROCESS (2009-2011)

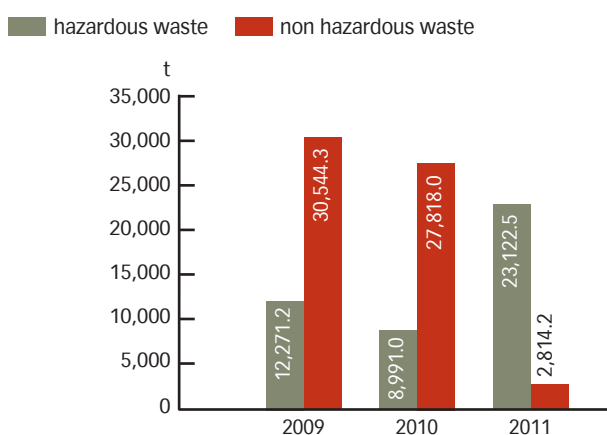
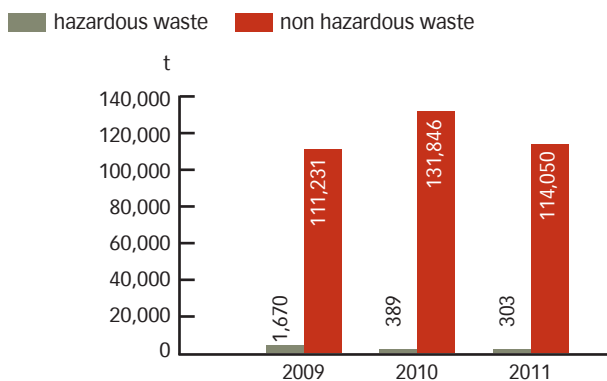


Chart No. 45 – GROUP WASTE PRODUCTION FOR THE WATER AREA (2009-2011)



¹¹⁷ Total energy sector waste also includes 50% of that produced by Acea SpA, amounting to around 16 tons, of which 6 t classified as “hazardous waste”.

¹¹⁸ In addition to the water companies Acea Ato 2, Acea Ato 5, Gori, Acque, Publicacqua and Acquedotto del Fiore, total water sector waste also includes 50% of the waste produced by Acea SpA (equal to around 16 tons, of which 6 t classified as “hazardous waste”).

Acea SpA, during 2011 **114,353 tons** of waste was produced, **mainly** represented by **inert material**, with a small portion, around 303 tons, of hazardous waste.

Process waste, deriving from waste water treatment activities has been treated separately so as not to invalidate the interpretation of the figure for own production.

The quantity of **sludge came to around 237,593 tons** (59.3% produced by Acea Ato 2 alone), while **sand** and **sediment** totalled around **16,681 tons** (60.0% of which produced by Acea Ato 2). See the Environmental accounts for further details.

Waste recovery activities are constantly developing, with certain Group companies which achieve **high percentages**. In

detail, **Acea Distribuzione**, which in 2011 recovered around 820 tons of waste, **68% of the total produced** (amounting to around 1,200 tons) and **Acea Ato 2** which achieved values close to **88%** (1,494 tons out of around 1,703 tons).

Acea Produzione recovers around 27% of waste produced (126 tons out of around 460 t) with a partial 96% recovery of hazardous waste .

From some years now at the head offices in Rome, which houses on average around 1,300 workers, **separate waste collection** continues, thanks to the daily collaboration of all the employees. In 2011, around **31,900 kg** of scrap material was collected and sent for recycling, including **paper, cardboard and toner**.

Box – The SISTRI, control system for the traceability of waste

Acea followed the developments of the new “ **Waste traceability control system**” (SISTRI), whose operations have so far been deferred until April 2012.

The SISTRI was established in 2009 as a result of the initiative of the Ministry for the Environment and Protection of the Territory and the Sea (Italian Ministerial Decree dated 17/12/2009 December 2009) for making the computerisation of the entire special waste activity chain possible at national level (see www.sistri.it). The **handling of the waste** from the place of production to that of disposal or final recovery **will be followed and mapped using IT (web) systems and via GPS** for the location of the means of transport. The System simplifies the procedures and the fulfilments, increasing the guarantees of accountability, awareness and prevention of unlawful acts.

Research

Acea supports research and development activities in the specific business areas, furthering initiatives aimed at experimenting and implementing technological innovation, often in synergy with research bodies and scientific-academic institutions.

During 2011, **Acea Distribuzione** continued with the various research projects undertaken in 2010, **including two dedicated to the innovative management of the networks**, and launched new and important initiatives, for example within the sphere of **electric mobility**, in addition to a specific project which may contribute towards the **reduction of energy losses** (see also *Socio-economic relationships with the stakeholders - Customers and the community; Institutions and the company* - and the other sections of the *Environmental issues*). Some of these are illustrated briefly below:

- The **"Smart Network Management System"**, which involves the integration between the various company technologies with consequent optimisation of the potential and increase in the efficiency, safety and quality of the service; the project has been admitted to the negotiation stage preparatory for the disbursement of the assisted funding (FIT); in order to be able to access the subsequent stages, the company must wait to receive the eventual invite from the Ministry for Economic Development to draw up the executive project and to formally communicate the start of activities;
- The **"Smart Grid"**, pilot project, which is structured in various sub-projects aimed at developing innovative solutions for the integration of the generation distributed and the improvement of the service continuity and, at the same time, new criteria for the management of the distribution networks, in accordance with the approaches and general instructions established by the Authority. The project will be completed in 2012;
- The **DigSilent PowerFactory**, project, 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. The optimisation, carried out via the putting together

of an application on dedicated calculation software, involves determining a structure of the network functional for achieving the advantages indicated above.

Activities for the recovery of water losses carried out by **Acea Ato 2** continued in 2011, in collaboration with **LaboratoRI** SpA. The study of the distribution networks was carried out using the district metering approach, specifically in the municipalities of Monterotondo, Grottaferrata, Riano, Santa Marinella – district of Santa Severa, Cerveteri and Subiaco. A number of positive results have already been reported, for example in the Municipality of Santa Severa, where a reduction in the loss of around 30% was obtained.

In 2011, **Umbra Acque** invested Euro 2.8 million to be spent over the space of three years, foreseeing the overall recovery of around 140 l/s of losses.

Acquedotto del Fiora also continued with its loss detection campaigns launched back in 2010, managing to obtain recoveries of the water source and energy savings. Merely by way of example, in the Municipalities of Monte Argentario and Orbetello savings for around 1.25 Mm³ in network introduction were reported along with an energy saving of 2.6 GWh

LaboratoRI carried out the following study/research activities in 2011:

- environmental monitoring for Solemme (Aquaser Group);
- functional checking of drinking water treatment plants for Acea Ato 5;
- experimentation, as in 2010, of XRf (X-ray fluorescence spectroscopy) techniques for a rapid screening of the waste entering waste-to-energy plants;
- development, as in 2010, of methods for the assessment of the performance features of waste used as solid fuel and definition of the related control protocols;
- feasibility study for the creation of a plant for treating slag produced in the waste-to-energy process burning the WDF.

Certain research activities in the environmental water sphere are carried out jointly by **LaboratoRI** and **Acea Ato 2** (see tables No. 89-92).

Table No. 89 - MAIN RESEARCH ACTIVITIES ON DRINKING WATER QUALITY AND SOURCES

project title (year)	description
Protection areas (2011)	In 2011, technical proposals were drafted for the protection areas of the well fields of Lariano, Artena, Simbrivio springs, Montelanico well. The map of the ground related to the Rieti area was completed, preparatory for the up-dating of the protection areas of the Capore springs.
Removal of contaminants from water intended for human consumption (2010-2011)	Activities continued for the definition of suitable treatment processes for the removal of contaminants (arsenic, vanadium, fluorides and manganese) so as to align the quality of certain water collected in critical areas with reference to the standards envisaged by Italian Legislative Decree No. 31/2001.
Development of a on-going monitoring prototype for recording the mineralisation parameters of water intended for human consumption (2009-2011)	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, were concluded.
Fosso Pratolungo: characterisation and analysis of the impacts (2010-2011)	The purpose of the study was to check the impacts present along the length of the ditch, so as to assess the effects of its introduction into the river Aniene. Seasonal monitoring campaigns continued in 2011 in various points of control along the water course involving the determination of chemical-physical, organic and microbiological parameters.
Experimentation of an on-line system for monitoring toxicity by means of bioluminescents (Vibrio f.) (2010-2011)	The natural bioluminescence of certain marine bacteria suffers a decrease if placed in contact with toxic substances; this inhibition is in relation to the toxicity of the substances, their concentration and the contact time. During 2011, the protocol was defined for the standardisation of analytical tests aimed at validating the on-line monitoring systems using luminescent bio-indicators.
Experimentation of on-going fluoride monitoring systems on drinking water plants. (2010-2011)	The project envisaged the validation of a system for the on-line and on-going determination of the concentration of fluorides. During 2011 the possibility of making the values of the concentrations exiting the treatment plants drinking available remotely was studied.
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 and in 2 plants of ATO 5 (2009-2011)	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 2011, these activities were carried out in 21 plants already installed in the last few years, following test and inspection.
Analysis of the disinfection system for the Bracciano drinking water treatment plant (2011)	Activities are underway for analysing the disinfection system for the water produced by the Bracciano Hypochlorite - Ozone drinking water plant, in order to optimise the running thereof.

Table No. 90 - MAIN RESEARCH ACTIVITIES ON TREATMENT PLANTS

project title (year)	description
Application of CLARIUS software for the management of the waste water treatment plants (2009-2011)	The project envisages the application of the Clarius software as an instrument for a systematic and systemic gathering and handling of data on the main treatment plants of Rome South (as from 2009), Rome East (as from 2010), Rome North (as from 2010), Ostia and Fregene (both as from 2011).
SBBGR Pilot study (2008-2011)	Within the sphere of experimentation of SBBGR (Sequencing Biological Biofilter Granular Reactor) technology, during 2011 a second phase was carried out on the pilot plant with the aim of looking further in-depth at the performances of the technology both in terms of sludge removal and production.
Sludge drying systems (2011)	During the year, activities were carried out relating to the definition of monitoring plans for the newly-created dryers present at the Rome North and Rome East plants
Monitoring of hydrogen sulphide (H ₂ S) at the waste water treatment plants (Rome South, East, North, Ostia, Co.BI.S.) (2007-2011)	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 2011, ordinary, extraordinary and night-time monitoring campaigns were carried out, based on the application of the research method for the air quality odour indicator, hydrogen sulphide.
Safety Project: chemical and biological monitoring of gaseous substances in waste treatment plants (Rome South, East, North, Ostia, CoBIS and 15 minor plants) (2007-2011)	During 2011, 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.
Safety project: search for Legionnaires disease in large waste water treatment plants (2011)	During 2011, the method was defined for the search for the microbiological loads relating to Legionnaires disease present in the gaseous phase within large treatment plants. The monitoring carried out proposes the aim of raising the level of health surveillance vis-à-vis workers present within the infrastructures.

Table No. 91 - MAIN RESEARCH ACTIVITIES ON CATCHMENT AREAS

project title (year)	description
Support for Water Availability Supervision (2009-2011)	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, created in the previous year, estimates the refilling of the aquifers for the area subtended by the collection and treatment plants.
Peschiera Springs: hydrogeological study for a long by pass (2011)	The study, set up in 2011, envisages the exploration of the feasibility for transferring the concession delivery at the aqueduct to around 8 km from the springs using works and an alternative layout to the existing one.
Mapping of water balance areas (2011)	The hydrogeological mapping of the reference areas for the drinking water supply (hydrogeological catchment areas) has been drawn up for the whole of ATO 2, permitting the association of the collection plants with the supply areas.
Rivers Tiber and Aniene: quality, on-line chemical physical monitoring network and ecotoxicology implementation status (2007-2011)	Once again in 2011, 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.
Characterization of the water of the River Mignone: evolution of the quality features (2008-2011)	As in 2010, during 2011 the study into the characterisation the water of the River Mignone continued, aimed at ascertaining the impact present along the waterway and the changes in the quality. Seasonal monitoring campaigns were carried out in various points of control along the river channel involving the determination of chemical-physical, organic and microbiological parameters.

Table No. 92 - MAIN RESEARCH ACTIVITIES ON SEWERAGE NETWORKS AND TREATMENT SLUDGE

project title (year)	description
Treatment sludge features: compatibility with energy recovery systems and analysis of the criticalities (2011)	A study was launched into the conduct of certain metals present in civil waste water coming into the treatment plants, both for the purpose of identifying the specific conduct in the different sections of the treatment systems, and their accumulation in the sludge. The final aim is to study the compatibility of the sludge with the energy recovery systems.
Urban Drainage Model for the Rome North sewerage basin (2004-2011)	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 2011 analysis was carried out on scenarios representative of the most significant rain events during the year and a detailed study into a number of critical points, along with quali-quantitative monitoring campaigns in dry and in rainy periods.
Inflow/Run-off model for the entire Sewerage Basin, Rome East, Rome South, CoBIS and Ostia (2005-2011)	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 2011, 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 2011, surveys were carried out on the 24 sewage raising constructions.

Index of Charts and Tables

Charts

No. 1 – Structure of the 2011 Sustainability Report	8
No. 2 – Acea Group activities	21
No. 3 – The shareholding structure as of 31 December 2011	22
No. 4 – Operational set-up as of 31 December 2011	24
No. 5 – Contribution of the business segments to the overall EBITDA (2010-2011)	28
No. 6 – Acea SpA organisation chart as of 31 December 2011	45
No. 7 – Internal regulations system	47
No. 8 – Acea and its stakeholders	55
No. 9 – The Acea values system vis-à-vis the stakeholders	56
No.10 – Global opinions on the services supplied (2009-2011)	69
No.11 – Electricity service - Network: overall customer satisfaction CSI and satisfaction intensity CSI and on macro-components (1st and 2nd half of 2011)	70
No. 12 – Electricity service - Sales: overall customer satisfaction CSI and satisfaction intensity CSI and on macrocomponenti (1° e 2° semestre 2011)	70
No. 13 – Water service - Overall customer satisfaction CSI and satisfaction intensity CSI and on macro-components (1st and 2nd half of 2011)	72
No. 14 – Public lighting service: overall customer satisfaction CSI and satisfaction intensity CSI and on macro-components (1st and 2nd half of 2011)	74
No. 15 – Trend in Acea performance for repairing public lighting faults (2007-2011)	86
No. 16 – Types of public lighting fault out of total reports received (2011)	86
No. 17 – Type of measures carried out on the sewage networks in ATO 2 - Central Lazio (2011)	92
No. 18 – Electricity price trend for a typical household consumer (2010-2011)	93
No. 19 – Total telephone traffic of Acea free-phone numbers (2010-2011)	97
No. 20 – Percentage-related distribution of the telephone traffic received by Acea free-phone numbers (2011)	98
No. 21 – Main indicators on visits to the Acea website (2009-2011)	102
No. 22 – Value of tender contracts and incidence of the main types on the total (2009-2011)	111
No. 23 – Breakdown of the costs for supplies (goods, services, work) by business segment (2009-2011)	111
No. 24 – Geographic distribution of the suppliers and the amounts for the procurement of goods and services, in Italy and abroad (2010-2011)	113
No. 25 – Geographic distribution of the amounts for work contracted out (2009-2011)	114
No. 26 – Breakdown of accidents by business area (2010-2011)	129
No. 27 – Industrial accidents and frequency and severity indexes (2009-2011)	130
No. 28 – Breakdown of training hours by role (2010-2011)	136
No. 29 – Overall number of SRI funds in Europe (2007-2011)	141
No. 30 – Total assets under management for SRI funds in Europe and Italy (2007-2011)	141
No. 31 – Assets under management for SRI funds by country (2011)	142
No. 32 – Breakdown of investments by business sector (2010-2011)	146
No. 33 – Energy saving targets assigned to Acea Distribuzione surplus TEEs produced (2009-2011)	172

No. 34 – Water companies: overall progress of the energy efficiency plans (2011)	173
No. 35 – The Group's water distribution network in Italy (2011)	174
No. 36 – Volumes of drinking water introduced onto the network: total and by company (2011)	174
No. 37 – Analytical checks on drinking water: totals and by company (2011)	176
No. 38 – Analytical checks on waste water: totals and by company (2011)	177
No. 39 – Sewerage networks: total and by company (2011)	180
No. 40 – Treatment plants: total and by company (2011)	180
No. 41 – Volumes of waste water treated in total and by company (2011)	180
No. 42 – Real water losses, parameter A15 (Italian Ministerial Decree No. 99/97)	184
No. 43 – Group waste production for the energy area (2009-2011)	187
No. 44 – Production of waste from waste-to-energy process (2009-2011)	187
No. 45 – Group waste production for the water area (2009-2011)	187

Tables

No. 1 – Materiality: mapping of the importance	7
No. 2 – Level of application of the GRI-G3.1 Guidelines	7
No. 3 – Global Compact-GRI correspondence	10
No. 4 – Standard GRI-G3.1 elements	12
No. 5 – The Acea Group: the numbers for 2011	22
No. 6 – Scope of consolidation as of 31 December 2011	23
No. 7 – Acea Group income statement and equity highlights (2010-2011)	26
No. 8 – Acea Group balance sheet figures and net financial position (2010-2011)	28
No. 9 – The main profitability indicators (2009-2011)	29
No. 10 – Acea instruments for sustainable development and social responsibility	32
No. 11 – Economic value directly generated and distributed (2010-2011)	57
No. 12 – Breakdown of the value generated by stakeholder (2010-2011)	57
No. 13 – GRI-G3.1 economic and social indicators	60
No. 14 – Electricity and gas sales: Acea Group customers by market type (2009-2011)	67
No. 15 – Overall opinion on the electricity service (2010-2011)	69
No. 16 – Electricity service (network and sales): percentage of those satisfied on specific aspects (2011)	71
No. 17 – Overall opinion on the water supply service in Rome (2010-2011)	72
No. 18 – Rome water service: percentage of those satisfied on specific aspects (2011)	72
No. 19 – Overall opinion on public lighting in Rome (2010-2011)	73
No. 20 – Public lighting service: percentage of those satisfied on specific aspects (2011)	74
No. 21 – Main measures in 2011 for the management and development of electricity networks and stations	76
No. 22 – Specific levels of commercial quality and performances achieved by Acea Distribuzione (2010-2011)	78
No. 23 – Automatic compensation for customers in the event of failed observance of the specific quality levels (2011)	78

No. 24 – Specific levels of commercial quality: promptness of the Distributor in communicating the technical data to the Seller (2010-2011)	79	No. 60 – Return on the value of the units of the Pegaso segments and the employee leaving indemnity as of 31 December 2011	133
No. 25 – Specific levels of commercial quality and performances achieved by Acea Energia (2010-2011)	80	No. 61 – Training courses and costs (2010-2011)	135
No. 26 – General levels of commercial quality and performances achieved by Acea Distribuzione (2010-2011)	80	No. 62 – Members who use CRA services (2009-2011)	138
No. 27 – General levels of commercial quality and performances achieved by Acea Energia (2010-2011)	81	No. 63 – Acea stock and Stock Exchange index performance (2010-2011)	139
No. 28 – LV customers: blackout duration and improvement percentages (2009-2011)	82	No. 64 – 2011 Ratings	139
No. 29 – LV customers: average number of blackouts and improvement percentages (2009-2011)	82	No. 65 – Webranking Italia Top 100: Acea's ranking (2009-2011)	140
No. 30 – MV customers: blackouts and compensation (2009-2011)	83	No. 66 – CSR online awards Italy: Acea's ranking (2010-2011)	140
No. 31 – Public lighting in Rome: the numbers (2011)	85	No. 66 – GRI-G3.1 environmental indicators	154
No. 32 – Main public lighting measures on lighting units (2011)	85	No. 67 – Environmental expenditure of the main operating companies (2010-2011)	161
No. 33 – Scheduled and extraordinary public lighting repairs and maintenance (2011)	85	No. 68 – Energy produced, broken down by primary energy source (2009-2011)	163
No. 34 – Public lighting fault repairs: Acea fines, standards and performances (2010-2011)	85	No. 69 – Potential energy, broken down by primary energy source used (2009-2011)	164
No. 35 – The main artistic monumental lighting measures in 2011	87	No. 70 – Acea Produzione electricity plants	164
No. 36 – Main measures on the aqueduct system and drinking water checks in ATO 2 - Central Lazio (2011)	90	No. 71 – Group installed electric power broken down by energy source (2009-2011)	166
No. 37 – Number, type and duration of water supply stoppages (2009-2011)	90	No. 72 – Availability indexes for Acea Produzione plants (2009-2011)	167
No. 38 – Main measures on the treatment and sewerage system and waste water checks in ATO 2 - Central Lazio (2011)	92	No. 73 – Average output of the Acea Produzione plants (2009-2011)	167
No. 39 – Average 2011 water tariffs applied by the Acea Group companies (2011)	95	No. 74 – San Vittore del Lazio waste-to-energy plant: running figures (2011)	168
No. 40 – The main performance indicators of the Acea free-phone numbers (2010-2011)	98	No. 75 – Overhead and underground distribution lines and plants: number (2009-2011)	169
No. 41 – Counter performance at central headquarters (2009-2011)	99	No. 76 – The springs under protection in ATO 2 - Central Lazio	175
No. 42 – 2011 top ten suppliers of goods and services to the Group and percentage of total	113	No. 77 – Analytical checks on drinking water: totals and by company (2009-2011)	176
No. 43 – 2011 top ten suppliers of work to the Group and percentage of total	114	No. 78 – Analytical checks on waste water: totals and by company (2009-2011)	177
No. 44 – Evolution of Group employees by business segment (2009-2011)	118	No. 79 – Analytical tests carried out overall in ATO 2 - Central Lazio (2009-2011)	178
No. 45 – Geographic location of human resources (2010-2011)	118	No. 80 – Analytical tests on drinking water – historic network of Rome (2009-2011)	178
No. 46 – Acea's employees: composition of the human resources (2009-2011)	119	No. 81 – Average chemical and microbiological features of the water distributed in Rome and Italian Legislative Decree No. 31/01 (2011)	179
No. 47 – Acea's employees: new recruits and leavers (2009-2011)	120	No. 82 – Parameters exiting the main treatment plants managed by Acea ATO 2 SpA - Municipality of Rome (2011)	181
No. 48 – Acea's employees: duration of the employment relationship (2011)	121	No. 83 – Acea vehicle fleet consumption (2009-2011)	182
No. 49 – Energy sector companies: duration of the employment relationship (2011)	121	No. 84 – The Acea Group's direct energy consumption (2009-2011)	183
No. 50 – Acea's employees: contract types (2009-2011)	121	No. 85 – The Acea Group's indirect energy consumption (2009-2011)	183
No. 51 – Turnover, recruitment, and leaver rates (2009-2011)	121	No. 86 – Acea Group water consumption (2009-2011)	184
No. 52 – Acea's employees: average age of the human resources (2009-2011)	122	No. 87 – CO ₂ emission quotas as per the PNA and effective emissions by plant (2009-2011)	185
No. 53 – Acea's employees: average length of service of the human resources (2009-2011)	122	No. 88 – Total Acea Group emissions (2009-2011)	186
No. 54 – Acea's employees: age brackets (2011)	122	No. 89 – Main research activities on drinking water quality and sources	190
No. 55 – Acea's employees: level of education (2009-2011)	122	No. 90 – Main research activities on treatment plants	191
No. 56 – Women within Acea (2009-2011)	126	No. 91 – Main research activities on catchment areas	192
No. 57 – Acea's employees: working hours (2009-2011)	127	No. 92 – Main research activities on sewerage networks and treatment sludge	193
No. 58 – Acea's employees: days of absence (2009-2011)	127		
No. 59 – Average gross remuneration by role (2009-2011)	131		





Environmental accounts

III Product systems

IV The products

XI The resources used

XIV Emissions and waste

**XVII Environmental sustainability
performance**

XVII Key environmental performance indicators

**XXIV Explanatory notes
to the Environmental accounts**

Additional information
on figures provided
in the Environmental accounts



Boundaries

The 2011 boundaries include Acea SpA, Acea Distribuzione, Acea Reti e Servizi Energetici, Acea Produzione¹, Acea Energia, Local Unit 3 of San Vittore del Lazio and Local Unit 1 of Terni, of A.R.I.A.², 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. In contrast to the past, the figures for the **energy area** are considered **globally** and in order to make the performances comparable, unless otherwise indicated, the figures for the previous two years have been recalculated.

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 and water sectors according to the *Life Cycle Assessment approach*³ (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.

¹ On 31 March 2011 the winding up of the joint venture between Acea SpA and GdF Suez Energia Italia SpA, created in 2002, was finalised. In the energy production sector, since 2011 Acea has wholly-owned, via Acea Produzione, the hydroelectric group of installations and the turbogas plants of Montemartini and Tor di Valle.

² The two companies Eall SpA and Terni En.A. SpA have been absorbed within A.R.I.A. SpA with effect as from 1 September 2011.

³ 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

- › Energy generation (thermoelectric + waste-to-energy + hydroelectric + photovoltaic)
- › Electricity distribution
- › Heat production and distribution
- › Public lighting
- › Tests and Inspections

Water

- › Drinking water supply
- › Non-drinking water supply
- › Water distribution
- › Waste water transportation/treatment
- › Analysis and research laboratory

The figures are provided for the three-year period 2009-2011 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.

As far as waste is concerned, divided up into the categories "hazardous" and "non-hazardous", the figures presented refer to the two areas, energy and water, with the waste produced by the Parent Company equally attributed to both (50/50).



The products **Energy**

Electricity generation figures refer to Acea Produzione, the waste-to-energy area (A.R.I.A.) and Acea Reti e Servizi Energetici (photovoltaic energy).

Acea Produzione SpA (AP) (100% Acea SpA)
A.R.I.A. SpA (100% Acea SpA)
Acea Reti e Servizi Energetici SpA (100% Acea SpA).

Electricity – Generation	unit of measurement	2009	2010	2011	Δ% 2011/2010
Summarized figures					
Total gross electricity produced (1) = (3 + 11 + 16)	GWh	832.40	822.65	544.35	-33.8
Total net electricity produced (2) = (10 + 15 + 18)	GWh	776.65	767.57	504.19	-34.3
From fossil sources (thermoelectric) (5 + 0.50 x 12 _{San Vittore} + 0.56 x 13 _{Terni})/(1)	%	32.0	29.7	17.8	-40.1
From renewable sources (hydroelectric, solar, biodegradable fraction of waste) (4 + 0.50 x 12 _{San Vittore} + 0.44 x 13 _{Terni} + 16)/(1)	%	68.0	70.3	82.2	16.9
Acea Produzione (100% Acea)					
Total gross electricity produced (3) = (4 + 5)	GWh	670.97	678.85	343.36	-49.4
Total gross hydroelectric energy (4)	GWh	488.12	499.71	320.92	-35.8
A. Volta Castel Madama	GWh	26.59	30.26	23.48	-22.4
G. Ferraris Mandela	GWh	18.81	22.91	15.31	-33.2
G. Marconi Orte	GWh	57.74	80.06	67.24	-16.0
Sant'Angelo	GWh	203.73	185.56	153.72	-17.2
Salisano	GWh	178.50	179.04	58.24	-67.5
Other minor plants	GWh	2.75	1.89	2.93	55.0
Total gross thermoelectric energy (5)	GWh	182.86	179.14	22.44	-87.5
from diesel					
Centrale Montemartini (*)	GWh	3.07	2.81	4.68	66.5
from natural gas	GWh	179.79	176.33	17.76	-89.9
Tor di Valle combined cycle	GWh	155.36	166.00	9.71	-94.2
Tor di Valle co-generation plant	GWh	24.43	10.33	8.05	-22.1
Total electricity losses (6) = (7 + 8 + 9)	GWh	35.08	40.47	16.36	-59.6
Internal consumption - hydroelectric plants (7)	GWh	2.20	2.28	2.17	-4.8
Internal consumption - heat plants (Tor di Valle, Montemartini) (8)	GWh	10.44	12.21	7.51	-38.5
Initial transformation losses (9)	GWh	22.44	25.98	6.68	-74.3
Total net electricity produced by Acea Produzione (10) = (3 - 6)	GWh	635.90	638.38	327.00	-48.8
A.R.I.A. (waste-to-energy) (100% Acea)					
Total gross energy produced (11) = (12 + 13)	GWh	157.94	125.64	149.43	18.9
San Vittore del Lazio plant (12)	GWh	79.93	80.17	149.43	86.4
Terni plant (13) (**)	GWh	78.02	45.47	n.a.	-
Total electricity losses (14)	GWh	17.20	14.41	21.34	48.1
San Vittore del Lazio internal consumption	GWh	9.28	9.57	21.34	123.0
Terni internal consumption	GWh	7.92	4.84	n.a.	-
Total net electricity produced (15) = (11 - 14)	GWh	140.75	111.23	128.09	15.2
ARSE (100% Acea)					
Gross photovoltaic energy (16)	GWh	3.49	18.16	51.56	183.9
Total electricity losses (17)	GWh	n.a.	0.19	2.46	1.194.7
Net photovoltaic energy (18) = (16 - 17)	GWh	n.a.	17.97	49.10	173.2

(*) The Montemartini plant remains operational but only as a standby.

(**) The reduction in energy production in 2010 was due to the shutdown of the Terni plant as from 9 August for revamping work still underway in 2011.

Thermal energy - Generation	unit of measurement	2009	2010	2011	Δ% 2011/2010
Acea Produzione (100% Acea)					
Gross thermal energy produced Tor di Valle plant (19)	GWh _t	77.74	84.77	84.64	-0.2
Total thermal electricity losses (20)	GWh _t	16.08	21.65	16.40	-24.2
Distribution losses	GWh _t	13.86	18.76	13.90	-25.9
Production losses	GWh _t	2.23	2.89	2.50	-13.5
Net thermal energy sold (21) = (19 - 20)	GWh_t	61.65	63.12	68.24	8.1

Electricity – Transport and sale	unit of measurement	2009	2010	2011	Δ% 2011/2010
to Rome and Formello - Summarized figures					
Supply from Acea Group (22)	GWh	2.73	1.57	2.93	86.6
Electricity from the market (23)	GWh	11,980.13	11,899.15	11,869.00	-0.3
from Sole Buyer	GWh	4,465.09	4,093.54	3,493.75	-14.7
from imports	GWh	432.38	432.38	432.38	-
from third party producers interconnected to the Acea Distribuzione network	GWh	20.41	25.06	20.14	-19.6
from wholesalers + other producers	GWh	7,062.25	7,348.17	7,922.74	7.8
Electricity demand on the network (24) = (22 + 23) = (25 + 26 + 27 + 28 + 29)	GWh	11,982.86	11,900.72	11,871.93	-0.2
Distribution, transport and commercial losses (25)	GWh	746.70	717.57	733.10	2.2
Internal transmission and distribution (26)	GWh	53.36	30.55	27.90	-8.8
Net electricity sold to third parties (27)	GWh	2.71	2.85	2.86	0.4
Net electricity conveyed by Acea to free market customers (28)	GWh	6,673.98	6,935.05	7,461.57	7.6
Net electricity sold by Acea Elettricità to free market customers on Acea Distribuzione network	GWh	3,786.22	3,745.02	3,974.33	6.1
Net electricity sold by Other Sellers to free market customers on Acea Distribuzione network	GWh	2,887.76	3,190.03	3,487.24	9.3
Net electricity sold to protected customers (29)	GWh	4,506.11	4,214.70	3,646.50	-13.5
Electricity - Sale in Italy					
Net electricity sold by Acea on the free market (30)	GWh	12,550	15,400	12,891	-16.3
Acea Elettricità	GWh	9,945	12,400	10,139	-18.2
Other investee companies	GWh	2,605	3,000	2,752	-8.3



Public lighting	unit of measurement	2009	2010	2011	$\Delta\%$ 2011/2010
Lighting flux in Rome (31)	Mlumen	2,766	2,925	3,057	4,5

Monitoring and gauging	unit of measurement	2009	2010	2011	$\Delta\%$ 2011/2010
Monitoring and gauging activities (32)	No.	417	373	339	-9.1
Electromagnetic field gauging	No.	47	31	7	-77.4
Noise monitoring	No.	1	7	3	-57.1
Chemical analysis of PCB	No.	96	50	103	106.0
Waste classification	No.	63	40	13	-67.5
Transformer diagnostics	No.	206	231	196	-15.2
Other	No.	4	14	17	21.4

Ponte Sant' Angelo
Rome



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 was in consideration of the role of industrial entity responsible for management, covered by Acea in the shareholding structures of the service providers.

Group water balance in Italy	unit of measurement	2009	2010	2011	Δ% 2011/2010
Summarized figures					
Total drinking water withdrawn from the environment or from other systems (33)	Mm ³	1,388.1	1,383.9	1,400.9	1.2
Total drinking water introduced onto network (34)	Mm ³	1,248.5	1,251.5	1,254.2	0.2
Total drinking water supplied (35)	Mm ³	665.7	672.0	668.7	-0.5

Water balance of the companies operating in the regions of Lazio and Campania	unit of measurement	2009	2010	2011	Δ% 2011/2010
Acea Ato 2 for Rome historic network					
Drinking water withdrawn from the environment (36)	Mm ³	608.2	594.0	612.8	3.2
from Lake Bracciano, treated	Mm ³	1.5	2.1	13.9	561.9
from wells	Mm ³	12.9	8.9	16.2	82.0
from springs	Mm ³	593.8	583.0	582.6	-0.1
Drinking water sold to municipal retailers (37)	Mm ³	71.6	73.7	89.8	21.8
Drinking water introduced onto non-drinking water network (38)	Mm ³	16.7	17.7	14.8	-16.4
Drinking water returned to the environment /technical operating volumes (39)	Mm ³	45.6	32.8	37.4	14.0
Drinking water introduced onto the Rome historic network (40) = (36) – (37 + 38 + 39)	Mm³	474.2	469.8	470.8	0.2
Drinking water supplied via the Rome historic network (41)	Mm³	303.4	300.4	300.3	0.0
Assessment of losses according to Italian Ministerial Decree No. 99/97					
(42) = Overall losses (parameter A17 MD 99/97)	Mm ³	155.2	154.0	155.1	0.7
(43) = Effective losses (parameter A15 MD 99/97)	Mm ³	117.4	116.4	117.5	0.9
		(24.7% of 40)	(24.8% of 40)	(25.0% of 40)	
Water balance - Rome non-drinking water network					
Drinking water withdrawn from the environment (44)	Mm ³	24.2	24.7	23.7	-4.0
from the River Tiber treated (Grottarossa plant)	Mm ³	3.9	0.2	0.0	-100.0
from springs	Mm ³	3.6	6.1	8.9	45.9
drinking water introduced onto non-drinking water network	Mm ³	16.7	18.5	14.8	-20.0
Non-drinking water supplied to the Municipality of Rome (45)	Mm³	14.5	14.5	13.8	-4.8
Non-drinking water supplied to other municipalities (46)	Mm³	00.03	0.03	0.03	0.0



Water balance of the companies operating in the regions of Lazio and Campania	unit of measurement	2009	2010	2011	Δ% 2011/2010
Acea Ato 2 for ATO 2 – Central Lazio (Rome + 77 municipalities acquired as of 31 Dec. 2011)					
Drinking water withdrawn from the environment (47)	Mm³	710.4	701.5	718.1	2.4
from Lake Bracciano, treated	Mm ³	1.5	2.1	13.9	561.9
from wells	Mm ³	74.6	69.6	76.9	10.5
from springs	Mm ³	632.7	628.1	625.6	-0.4
from other aqueduct systems	Mm ³	1.7	1.7	1.6	-5.9
Drinking water sold to municipal retailers (48)	Mm ³	47.4	53.2	64.5	21.2
Drinking water introduced onto non-drinking water network (49)	Mm ³	16.7	17.7	14.8	-16.4
Drinking water returned to the environment /technical operating volumes (50)	Mm ³	47.3	34.1	40.1	17.6
Drinking water introduced onto the Ato2 network (51) = (47) - (48 + 49 + 50)	Mm³	599.1	596.6	598.7	0.4
Total drinking water introduced onto the ATO 2 network (52)	Mm³	355.8	358.9	359.6	0.2
Assessment of losses according to Italian Ministerial Decree No. 99/97					
Overall losses (parameter A17 MD 99/97)	Mm ³	220.8	215.4	216.6	0.6
Effective losses (parameter A15 MD 99/97)	Mm ³	161.8	160.2	161.2	0.6
		(27.0% of 51)	(26.9 % of 51)	(26.9% of 51)	
Acea Ato 5 for ATO 5 – Southern Lazio - Frosinone (85 municipalities)					
Drinking water withdrawn from the environment (55)	Mm³	95.4	103.9	103.9	0.0
from lakes/rivers	Mm ³	0	0	0	-
from wells	Mm ³	65.70	73.8	73.8	0.0
from springs	Mm ³	29.7	30.1	30.1	0.0
Drinking water introduced onto network (56)	Mm³	86.4	93.8	93.5	-0.3
Drinking water supplied (57)	Mm³	21.0	21.3	20.4	-4.2
Assessment of losses according to Italian Ministerial Decree No. 99/97					
Overall losses (parameter A17 MD 99/97) (58)	Mm ³	63.10	70.00	70.50	0.7
Effective losses (parameter A15 MD 99/97) (59)	Mm ³	50.20	56.00	56.80	1.4
		(58.1% of 56)	(59.7 % of 56)	(60.7% of 56)	
Gori for ATO 3 - Sarnese Vesuviano (76 municipalities)					
Drinking water withdrawn from the environment (60)	Mm³	40.78	40.07	41.17	2.7
from lakes/rivers	Mm ³	0	0	0	-
from wells	Mm ³	36.41	36.55	38.56	5.5
from springs	Mm ³	4.37	3.52	2.61	-25.9
Water withdrawn from other aqueduct systems (61)	Mm³	168.30	169.2	170.4	0.7
Drinking water introduced onto network (62) =(60 + 61)	Mm³	209.08	209.3	211.57	1.1
Drinking water supplied (63)	Mm³	94.33	93.95	91.12	-3.0
Assessment of losses according to Italian Ministerial Decree No. 99/97					
Overall losses (parameter A17 MD 99/97) (64)	Mm ³	113.74	114.28	119.33	4.4
Effective losses (parameter A15 MD 99/97)(65)	Mm ³	92.82	92.97	94.62	1.8
		(44.4% of 62)	(44.4 % of 62)	(44.7% of 62)	



Water balance of the companies operating in the regions of Tuscany and Umbria	unit of measurement	2009	2010	2011	Δ% 2011/2010
Publiacqua for ATO 3 – Medio Valdarno (52 municipalities)					
Drinking water withdrawn from the environment (66)	Mm³	168.90	166.2	163.6	-1.6
from lakes/rivers	Mm ³	111.50	109.80	108.1	-1.5
from wells	Mm ³	44.60	44.10	43.6	-1.1
from springs	Mm ³	12.80	12.30	11.9	-3.3
Drinking water introduced onto network (67)	Mm³	153.30	151.00	148.8	-1.5
Drinking water supplied (68)	Mm³	86.00	86.00	86.0	-
Assessment of losses according to Italian Ministerial Decree No. 99/97					
Overall losses (parameter A17 MD 99/97) (69)	Mm ³	59.30	57.00	55.0	-3.5
Effective losses (parameter A15 MD 99/97) (70)	Mm ³	48.80	46.60	44.5	-4.5
		(31.8 of 67)	(30.9 of 67)	(29.9% of 67)	
Acque for ATO 2 – Basso Valdarno (57 municipalities)					
Drinking water withdrawn from the environment (71)	Mm³	75.61	75.38	76.98	2.1
from lakes/rivers	Mm ³	3.26	3.26	3.32	1.8
from wells	Mm ³	65.67	65.26	66.90	2.5
from springs	Mm ³	6.68	6.85	6.76	-1.3
volume of water withdrawn from other aqueduct systems (72)	Mm ³	6.42	6.65	5.98	-10.1
Drinking water introduced onto network (73)	Mm³	82.03	82.02	82.96	1.1
Drinking water supplied (74)	Mm³	47.03	49.48	49.48	-
Assessment of losses according to Italian Ministerial Decree No. 99/97					
Overall losses (parameter A17 MD 99/97) (75)	Mm ³	27.75	26.68	26.68	-
Effective losses (parameter A15 MD 99/97) (76)	Mm ³	19.92	18.86	18.86	-
		(24.3 of 73)	(23.0 of 73)	(23.0% of 73)	
Acquedotto del Fiora for ATO 6 – Ombrone (56 municipalities)					
Drinking water withdrawn from the environment (77)	Mm³	63.24	61.86	61.86	-
from lakes/rivers	Mm ³	0.78	0.85	0.85	-
from wells	Mm ³	27.86	21.97	21.97	-
from springs	Mm ³	34.60	39.04	39.04	-
Drinking water introduced onto network (78)	Mm³	59.68	59.89	59.89	-
Drinking water supplied (79)	Mm³	30.59	31.45	31.45	-
Assessment of losses according to Italian Ministerial Decree No. 99/97					
Overall losses (parameter A17 MD 99/97) (80)	Mm ³	29.09	27.84	27.84	-
Effective losses (parameter A15 MD 99/97) (81)	Mm ³	25.84	22.76	22.76	-
		(43.3% of 78)	(38.0% of 78)	(38.0% of 78)	
Umbra Acque for ATI 1 and 2 – Umbria (38 municipalities)					
Drinking water withdrawn from the environment (82)	Mm³	59.13	59.15	58.96	-0.3
from lakes/rivers	Mm ³	1.07	0.77	0.98	27.3
from wells	Mm ³	44.34	44.35	44.62	0.6
from springs	Mm ³	13.72	14.03	13.36	-4.8
Drinking water introduced onto network (83)	Mm³	58.89	58.91	58.72	-0.3
Drinking water supplied (84)	Mm³	30.97	30.91	30.63	-0.9
Assessment of losses according to Italian Ministerial Decree No. 99/97					
Overall losses (parameter A17 MD 99/97) (85)	Mm ³	23.70	23.68	23.90	0.9
Effective losses (parameter A15 MD 99/97) (86)	Mm ³	22.10	22.08	22.30	1.0
		(37.4% of 83)	(37.5% of 83)	(37.9% of 83)	



Waste water treated by Acea Ato 2	unit of measurement	2009	2010	2011	Δ% 2011/2010
Waste water treated in the main purification plants (87)	Mm³	527.2	587.2	598.6	1.9
Rome South	Mm ³	288.1	334.6	353.3	5.6
Rome North	Mm ³	110.2	112.4	104.7	-6.9
Rome East	Mm ³	94.3	98.9	100.2	1.3
Rome Ostia	Mm ³	23.1	27.8	26.7	-4.0
CoBIS	Mm ³	6.4	7.8	7.9	1.3
Fregene	Mm ³	5.1	5.7	5.8	1.8
Other – municipality of Rome	Mm ³	12.04	13.9	13.4	-3.6
Other – outside Municipality of Rome	Mm ³	56.58	58.5	60.8	3.9
Total waste water treated (88)	Mm³	595.8	659.6	672.8	2.0

Waste water treated by other companies	unit of measurement	2009	2010	2011	Δ% 2011/2010
Waste water treated in the main purification plants of the companies excluding Ato 2 (89)	Mm ³	254.9	269.4	262.8	-2.4

Analytical controls on drinking water and waste water for Acea Group	unit of measurement	2009	2010	2011	Δ% 2011/2010
No. of analytical checks on drinking water (90) (*)	No.	1,168,387	1,081,141	1,102,737	2.0
Acea Ato 2	No.	359,728	330,269	337,529	2.2
Acea Ato 5	No.	74,396	74,309	94,327	26.9
Gori	No.	86,650	82,801	82,193	-0.7
Acque	No.	240,998	228,485	254,297	11.3
Publiacqua	No.	234,560	209,334	189,508	-9.5
Acquedotto del Fiora	No.	55,286	61,001	65,007	6.6
Umbra Acque	No.	116,769	94,942	79,876	-15.9
Analytical controls on total Group waste water (91)	No.	323,994	351,205	358,320	2.0
Acea Ato 2	No.	87,056	98,150	95,527	-2.7
Acea Ato 5	No.	27,358	28,383	17,786	-37.3
Gori	No.	13,886	15,979	14,986	-6.2
Acque	No.	94,395	103,239	105,076	1.8
Publiacqua	No.	34,826	33,497	34,405	2.7
Acquedotto del Fiora	No.	24,841	31,699	42,902	35.3
Umbra Acque	No.	41,632	40,258	47,638	18.3

(*) The number includes the controls carried out independently by each Company, and those carried out by Laboratorio in-house.



The resources used **Energy**

Generation, transport and sale of electricity, heat and public lighting	unit of measurement	2009	2010	2011	Δ% 2011/2010
Natural gas					
Electricity and heat generation (92) = (93 + 94)	Nm³ x 1,000	57,042	48,217	15,377	-68.1
Natural gas for thermoelectric and heat production AP (93)	Nm³ x 1,000	51,477	42,837	12,664	-70.4
Tor di Valle reserve boilers - for district heating	Nm³ x 1,000	3,060	2,291	7,419	223.8
Tor di Valle co-generation plant	Nm³ x 1,000	9,378	3,873	2,956	-23.7
Tor di Valle combined cycle	Nm³ x 1,000	39,040	36,673	2,289	-93.8
Waste-to-energy (94)	Nm³ x 1,000	5,565	5,380	2,713	-49.6
San Vittore del Lazio waste-to-energy plant	Nm³ x 1,000	2,052	2,051	2,713	32.3
Terni waste-to-energy plant	Nm³ x 1,000	3,513	3,329	n.a.	-
Diesel for thermoelectric generation					
Montemartini plant (95)	litres x 1,000	1,180	1,097	1,815	65.5
Fuel derived from waste (WDF) treated					
San Vittore del Lazio waste-to-energy plant (96)	t x 1,000	77,601	92,799	158,451	70.7
Pulper from paper industry waste treated					
Terni waste-to-energy plant (97)	t x 1,000	97,154	54,925	n.a.	-
Water					
Cooling of thermoelectric plants AP (98) = (147)	Mm³	37.07	34.70	6.69	-80.7
Offtake for hydroelectric production (99)	Mm³	3,585.24	4,381.64	3,400.50	-22.4
Process water (100)	Mm³	0.1634	0.1392	0.1549	11.3
Domestic/sanitary uses (101)	Mm³	0.4966	0.2098	0.2509	19.6
Sundry materials					
Dielectric mineral oil (102)	t	1.9	6.0	28.0	366.7
SF₆ (103)	t	0.52	0.52	0.62	19.2
Replacement/recovery refrigerating fluids (HCFC type) (104)	t	n.a.	0.05	0.22	340.0
Sundry chemicals (105)	kg	418,360	446,831	3,241,216	625.4
Acidity corrector	kg	660	2,860	7,200	151.7
Deoxygenating substances	kg	3,240	3,080	660	-78.6
Stabilizers and bio-dispersing agents	kg	30,760	20,200	2,700	-86.6
Sodium chloride	kg	51,900	80,000	76,500	-4.4
Caustic soda	kg	112,325	119,630	109,080	-8.8
Sodium hypochlorite	kg	58,160	79,020	4,800	-93.9
Sodium bicarbonate	kg	0	0	2,910,380	-
Hydrochloric acid	kg	137,668	135,580	119,320	-12
Sundry oil and greases / lubricants	kg	23,647	6,461	10,576	63.7
Electricity					
Consumed for electricity distribution (106) = (25)	GWh	746.70	717.57	733.10	2.2
Consumed for electricity generation (107) = (1 - 2)	GWh	55.76	55.07	40.16	-27.1
Consumed for offices (50% of the electricity consumed by the Parent Company) (108)	GWh	5.84	5.16	5.21	1.0
Other internal uses (109)	GWh	53.36	30.55	27.90	-8.7
Total (110) = (106 + 107 + 108 + 109)	GWh	861.66	808.35	806.37	-0.2
Public lighting					
Consumption for public lighting (111)	GWh	150.85	157.75	161.66	2.5



The resources used **Water**

The figures refer to the main water companies in the Group:
Acea Ato 2, Acea Ato 5, Gori, Acque, Publiacqua, Acquedotto del
Fiara and Umbra Acque

Collection, transportation and distribution of drinking and non-drinking water	unit of measurement	2009	2010	2011	Δ% 2011/2010
Sundry materials and natural resources					
Reagents for purification and disinfection (112)	t	11,809.14	12,222.06	10,299.7	-15.7
Reagents used in chemical analyses (113)	t	1.20	1.30	1.30	0.0
Gas used in chemical analyses (114)	MNm ³	3.04	3.08	3.11	1.0
Replacement/recovery refrigerating fluids (HCFC type) (115)	t	n.a.	0.05	0.22	340.0
Electricity					
Water pumping plants (116)	GWh	484.77	463.61	481.17	3.8
Offices/internal use (50% of energy consumed by the Parent Company) (117) = (108)	GWh	5.84	5.16	5.21	1.0
Chemical laboratory (118)	GWh	1.17	1.16	1.14	-1.7
Total electricity consumed (119) = (116 + 117 + 118)	GWh	491.78	469.93	487.52	3.7
Drinking water					
Domestic/sanitary uses (120)	Mm ³	1.03	0.84	0.87	3.6
Offices (50% of drinking water consumed by Parent Company) (121)	Mm ³	0.36	0.10	0.14	40.0
Total drinking water consumed (122)	Mm³	1.39	0.94	1.01	7.4

Waste water treatment	unit of measurement	2009	2010	2011	Δ% 2011/2010
Sundry materials and natural resources					
Reagents used in waste water treatment (123)	t	6,102	6,544	6,436	-1.7
Polyelectrolytes used to dehydrate sludge	t	1,469	1,388	1,721	24.0
Emulsion	t	1,456	1,370	1,706	24.5
Powder	t	13	18	15	-16.7
Sodium hypochlorite for final disinfection	t	4,174	3,763	3,633	-3.5
Ferric chloride used to dehydrate sludge	t	104	233	438	88.0
Lime, Formic acid, aluminium polychloride	t	228	270	328	21.5
Others (anti-foaming agents, etc.)	t	127	890	315	-64.6
Mineral oil and grease (124)	t	16.40	8.83	2.05	-76.8
Electricity					
Sewage and purification systems (125)	GWh	292.2	301.9	296.3	-1.9



Fuels used by the Group companies for automotive and heating purposes

fuel type	unit of measurement	2009	2010	2011	Δ% 2011/2010
Automotive (Group Vehicle Pool)					
Gasoline (126)	litres x 1000	913.1	980.8	639.2	-34.8
Diesel (127)	litres x 1000	954.7	788.8	566.1	-28.2
Heating(*)					
Diesel (128)	litres x 1000	9.20	9.40	6.50	-30.9
Natural gas (129)	Nm ³ x 1000	536.60	562.80	690.34	22.7
GPL (130)	litres x 1000	34.90	18.20	23.20	27.5



(*) Figures refer to Acea SpA, Acea Ato 2, Acea Distribuzione and Acea Produzione.



Emissions and waste Energy

Emissions into the atmosphere	unit of measurement	2009	2010	2011	Δ% 2011/2010
CO₂ (131) = (132 + 133)	t	174,474	116,644	30,851	-73.6
Acea Produzione (132)	t	108,832	90,891	30,851	-66.1
A.R.I.A. (133)	t	65,642	25,753	0	-
NO_x (134) = (135 + 136)	t	299.42	217.89	87.07	-60.0
Acea Produzione (135)	t	151.86	85.24	62.26	-27.0
A.R.I.A. (136)	t	147.56	132.65	24.81	-81.3
CO (137) = (138 + 139)	t	16.88	16.54	5.35	-67.7
Acea Produzione (138)	t	12.80	11.72	3.23	-72.4
A.R.I.A. (139)	t	4.08	4.82	2.12	-56.0
SO₂ (140) = (141 + 142)	t	9.92	6.70	0.69	-89.7
Acea Produzione (141)	t	0.05	0.05	0.07	40.0
A.R.I.A. (142)	t	9.87	6.65	0.62	-90.7
Dust (143) = (144 + 145)	t	2.05	3.04	0.32	-89.5
Acea Produzione (144)	t	0.07	0.06	0.09	50.0
A.R.I.A. (145)	t	1.98	2.98	0.23	-92.3

Other emissions and waste	unit of measurement	2009	2010	2011	Δ% 2011/2010
Waste water treated (146)	Mm ³	0.010	0.007	0.001	-85.7
Cooling water returned (147) = (98)	Mm ³	37.065	34.695	6.694	-80.7
50 Hz electric fields	kV				Monitored Commitment to keep within the legal limits
50 Hz magnetic fields	μT				Monitored Commitment to keep within the legal limits
Noise	dB				Monitored Commitment to keep within the legal limits
Dispersed luminous flux	Mlumen				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	2009	2010	2011	Δ% 2011/2010
Hazardous waste excluding waste-to-energy sector (148)	t	481.54	579.89	604.33	4.2
Energy sector production	t	476.59	577.73	598.04	3.5
Portion deriving from activities carried out by Parent Company (*)	t	4.95	2.16	6.29	191.2
Hazardous waste A.R.I.A. (149)	t	12,271.18	8,991.02	23,122.5	157.2
Non-hazardous waste excluding waste-to-energy sector (150)	t	1,321.83	1,109.54	1,071.88	-3.4
Energy sector production	t	1,297.45	1,093.98	1,062.22	-2.9
Portion deriving from activities carried out by Parent Company (*)	t	24.38	15.56	9.66	-37.9
Non-hazardous waste A.R.I.A. (151)	t	30,544.25	27,818.00	2,814.18	-89.9

(*) 50% of waste produced by Parent Company.



Emissions and waste **Water**

Acea Ato 2 SpA	unit of measurement	2009	2010	2011	Δ% 2011/2010
Specific waste from waste water treatment					
Treatment sludge (152)	t	143,082	126,666	140,880	11.2
Sand and sediment from treatment (153)	t	9,806	10,184	10,008	-1.7
Waste (Italian Legislative Decree No. 152/06)					
Hazardous waste (154)	t	789.9	188.2	55.5	-70.5
Own production in water sector	t	784.9	186.1	49.2	-73.6
Portion deriving from activities carried out by Parent Company (*)	t	5.0	2.2	6.3	186.4
Non-hazardous waste (155)	t	2,165.4	4,175.4	1,674.9	-59.9
Own production in water sector	t	620.3	3,284.3	1,188.3	-63.8
Portion deriving from activities carried out by Parent Company (*)	t	24.4	15.6	9.7	-37.8
Inert material	t	1,520.7	875.55	477.0	-45.5
Other emissions and waste					
Noise	dB				Monitored Commitment to keep within the legal limits
Smells					Monitored Commitment to keep within the limit of perception in areas nearby treatment plants

Other water companies	unit of measurement	2009	2010	2011	Δ% 2011/2010
Specific waste from waste water treatment					
Treatment sludge (156)	t	110,689	94,099	96,713	2.8
Sand and sediment (157)	t	6,961	7,557	6,673	-11.7
Waste (Italian Legislative Decree No. 152/06)					
Hazardous waste (158)	t	880.2	201.0	247.9	23.3
Non-hazardous waste (159)	t	109,065.7	127,670.6	112,374.6	-12.0

(*) 50% of waste produced by Parent Company.



Emissions from vehicles and air-conditioning

Group companies	unit of measurement	2009	2010	2011	Δ% 2011/2010
Vehicles					
CO ₂ (160)	t	4,708	4,871	2,699	-44.6
NO _x (161)	t	9.4	8.4	4.8	-42.9
CO (162)	t	52.0	50.8	28.0	-44.9
SO ₂ (163)	t	n.a.	n.a.	n.a.	-
Heating					
CO ₂ (164)	t	1,408	1,425	1,758	23.4



Environmental sustainability performance **Energy**

Key environmental performance indicators (Key Performance Indicators)

Indicator	unit of measurement	2009	2010	2011
Energy used in processes				
A - Consumption for electricity distribution (item 25)	TJoules (GWh)	2,688.1 (746.7)	2,583.4 (717.6)	2,639.2 (733.1)
B - Consumption for electricity production (item 107)	TJoules (GWh)	200.9 (55.8)	198.4 (55.1)	144.7 (40.2)
C - Heat loss on district heating network (item 20)	TJoules (GWh)	58.0 (16.2)	77.8 (21.6)	59.0 (16.4)
D - Consumption for public lighting (item 111)	TJoules (GWh)	543.06 (150.8)	567.90 (157.7)	582.0 (161.7)
E - Water distribution (item 119 - 117)	TJoules (GWh)	1,749.4 (485.9)	1,673.3 (464.8)	1,736.3 (482.3)
F - Waste water treatment (item 125)	TJoules (GWh)	1,060.2 (294.5)	1,086.84 (301.9)	1,066.7 (296.3)
G - Electricity for offices (item 108 + 117)	TJoules (GWh)	42.1 (11.7)	37.2 (10.3)	37.4 (10.4)
H - Consumption for office heating	TJoules (GWh)	19.6 (5.4)	20.1 (5.6)	24.5 (6.8)
I - Vehicles (item 126 + 127)	TJoules (GWh)	62.9 (17.5)	59.3 (16.5)	40.4 (11.2)
Indirect consumption + consumption from vehicles	TJoules (GWh)	6,424.3 (1,784.5)	6,304.2 (1,751.1)	6,330.2 (1,758.4)
L - Energy losses when converting from primary sources to electricity (*)	TJoules (GWh)	3,059.2 (849.8)	2,508.1 (696.7)	2,237.15 (621.4)
Total energy use (sum A : L)	TJoules (GWh)	9,483.5 (2,634.3)	8,812.3 (2,447.8)	8,567.3 (2,379.8)
EMISSIONS, EFFLUENT, AND WASTE				
Greenhouse gas emissions				
CO ₂ (item 131 + 160 + 164)	t	180,590	122,940	35,308
Emissions of SO₂, NO_x and other significant gases by type				
NO _x (item 134 + 161)	t	308.8	226.3	91.87
CO (item 137 + 162)	t	68.88	67.34	33.34
SO ₂ (item 140 + 163)	t	9.92	6.70	0.69
Acea Produzione emission/production indicators				
NO _x /thermoelectric production	g/kWh	0.83	0.48	2.78
CO/thermoelectric production	g/kWh	0.07	0.07	0.14
CO ₂ /thermoelectric production	g/kWh	595	507	1,375
CO ₂ /total gross production	g/kWh	162	134	90
SO ₂ /thermoelectric production	g/kWh	0.00025	0.00028	0.00312
Acea emission/production indicators (Acea Produzione and A.R.I.A.)				
NO _x /thermoelectric production	g/kWh	1.09	0.87	0.90
CO ₂ /thermoelectric production	g/kWh	571	436	318
CO ₂ /total gross production	g/kWh	209.6	141.8	56.7
SO ₂ /thermoelectric production	g/kWh	0.0	0.0	0.0

(*) The figure includes the losses of the Acea Produzione plants and the waste-to-energy plants.



Indicator	unit of measurement	2009	2010	2011
PRODUCTS AND SERVICES: ELECTRICITY				
Electricity production process efficiency (solely Acea Produzione figures) (*)				
Gross average efficiency of thermoelectric production (calculation 1)	%	35.4	40.8	30.8
Tor di Valle (combined cycle)	%	38.2	42.8	40.69
Tor di Valle (co-generation – solely electricity efficiency)	%	24.9	25.3	25.9
Montemartini plant	%	26.3	25.9	26.1
Gross average efficiency of thermoelectric production including recovered thermal energy (calculation 2)	%	41.4	43.9	46.1
Gross average efficiency of hydroelectric production (calculation 3)	%	83.9	84.8	84.3
Gross average efficiency of total production (calculation 4)	%	70.7	73.2	80.8
Gross average efficiency of total production including recovered heat (calculation 5)	%	82.2	84.1	82.9
Specific production of waste	g/kWh	0.40	0.40	0.46
Protection of the surrounding areas (total length of HV lines in cables / length of overhead HV lines) x 100	%	64.78	64.78	64.78
Public lighting flux efficiency (item 31/item 111)	Lumen/kWh	18.3	18.5	18.9
Average efficiency of installed lamps (item 31/wattage)	Lumen/W	77.9	78.6	79.8
Specific consumption per lighting unit (item 111/No. of lighting units)	kWh/lighting unit (No. lighting units x year)	888.2 (169,841)	899.6 (175,352)	888.3 (181,991)
No. of operating and laboratory checks /GWh net electricity sold (item 32/item 29)	n./GWh	0.09	0.09	0.09
Total electricity losses (25)/(24)	% energy requested	6.2	6.0	6.2
- internal consumption				
- initial transformation				
- transport				
- technical and commercial				
Electricity generation process efficiency – Waste-to-energy plants				
Gross average electricity production efficiency of San Vittore del Lazio plant (calculation 6)	kWh /kg WDF from waste-to-energy	1.03	0.86	0.94
Gross average of electricity production efficiency of Terni plant (calculation 7)	kWh/kg pulper from waste-to-energy	0.80	0.83	n.a.
Electricity generation process efficiency – photovoltaic plants				
Average efficiency of photovoltaic units	%	n.a.	n.a.	14.0

(*) The calculations used for determining the electricity generation efficiencies are described before the explanatory notes at the end of the document.



Environmental sustainability performance **Water**

key environmental performance indicators (Key Performance Indicators)

Indicator	unit of measurement	2009	2010	2011
SERVICE: DRINKING WATER				
Assessment parameters as per Italian Ministerial Decree No. 99/97				
Acea Ato 2 network				
Primary efficiency (R1): (item 52)/(item 51)	%	59.4	60.2	60.1
Efficiency at consumption level (R2): (item 52 + A11)/(item 51) A11 = 2.2% of (item 52)	%	60.7	61.5	61.4
Net efficiency (R3): (item 52 + A11 + A12)/(item 51) A12 = 2.0% of (item 51)	%	63.1	63.9	63.8
Historic network (Rome + Fiumicino)				
Primary efficiency (R1) rete storica: (item 41)/(item 40)	%	64.0	63.9	63.8
Efficiency at consumption level (R2): (item 41 + A11)/(item 40) A11 = 2.0% of (item 41)	%	65.3	65.2	65.1
Net efficiency (R3): (item 41 + A11 + A12)/(item 40) A12 = around 2.0% of (item 40)	%	67.3	67.2	67.1
PRODUCT: DRINKING WATER				
Acea Ato 2 network				
Linear index of overall drinking water losses (as per MD No. 99/97) (item 53)/(km network) (*)	Mm ³ /1.000 km (km)	21.5 (10,266.5)	20.8 (10,367.1)	20.7 (10,444.9)
Linear index of effective distribution losses (as per MD No. 99/97) Ato 2 network (item 54)/(km network) (*)	Mm ³ /1.000 km (km)	15.8 (10,266.5)	15.5 (10,367.1)	15.4 (10,444.9)
Specific electricity consumption for water network (Ato 2 energy network consumption)/(item 51)	kWh/m ³	0.209	0.204	0.221
No. of checks on drinking water distributed (item 91- drinking water Ato 2)/(item 51)	n./Mm ³	600	554	564
Drinking water additive process index (item 119 - only Ato 2 network)/(item 51)	g/m ³	2.7	1.9	1.9
Historic network (Rome + Fiumicino)				
Linear index of overall drinking water losses (as per MD No. 99/97: A17/km network) (item 42)/(km rete) (*)	Mm ³ /1,000 km km	22.1 (7,021.1)	21.7 (7,098.5)	21.7 (7,161.7)
Linear index of overall drinking water losses (as per MD No. 99/97: A15/km network) (item 43)/(km rete) (*)	Mm ³ /1,000 km	16.7 (7,021.1)	16.4 (7,098.5)	16.4 (7,161.7)

(*) These are the kilometres of distribution and transportation network.



Indicator	unit of measurement	2009	2010	2011
SERVICE: WASTE WATER TREATMENT				
Total sludge disposed of	t	143,082	126,666	140,880
Sand and sediment removed	t	9,806	10,184	10,008
COD removed	t	138,968	126,029	149,055
Total Suspended Solids (TSS) removed	t	94,778	90,831	86,202
Additive process index	t/Mm ³	9.22	8.54	8.15
Specific electricity consumption for treatment process	kWh/m ³	0.296	0.275	0.267
Intensity of checks on waste water	No./Mm ³	165.1	167.1	158.0
COMPLIANCE				
Penalty paid for non-compliance with environmental regulations/agreements	euro	314,800	228,406	473,731



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

$$\text{Energy}_{\text{diesel oil}} \text{ (kWh)} = \frac{\text{diesel oil (l)} \times 0,835 \times \text{PCI}_d \text{ (kcal/kg)}}{860 \text{ (kcal/kWh)}} \quad \text{Energy equivalent to diesel oil consumed (95)}$$

$$\text{Energy}_{\text{natural gas}} \text{ (kWh)} = \frac{\text{natural gas (Nm}^3\text{)} \times \text{PCI}_m \text{ (kcal/Nm}^3\text{)}}{860 \text{ (kcal/kWh)}} \quad \text{Energy equivalent to natural gas consumed (93)}$$

PCI_d = 10,000 kcal/kg (net calorific value of diesel oil)

PCI_m = 8,500 kcal/Nm³ (net calorific value of natural gas)

860 = energy conversion factor from kcal to kWh

0.835 = specific weight of diesel oil (kg/l)

NB: between 2009 - 2011, 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

$$\text{efficiency (thermoelectric)} = \frac{\text{Energy}_{\text{thermoelectric}} \text{ (kWh)} + \text{Energy}_{\text{thermal}} \text{ (kWh)}}{\text{Energy}_{\text{diesel oil}} \text{ (kWh)} + \text{Energy}_{\text{natural gas}} \text{ (kWh)}}$$

$\text{Energy}_{\text{thermal}}$ = Gross thermal energy produced

$\text{Energy}_{\text{thermoelectric}}$ = Gross thermoelectric energy produced

$$\text{Energy}_{\text{diesel oil}} \text{ (kWh)} = \frac{\text{diesel oil (l)} \times 0,835 \times \text{PCI}_d \text{ (kcal/kg)}}{860 \text{ (kcal/kWh)}} \quad \text{Energy equivalent to diesel oil consumed (95)}$$

$$\text{Energy}_{\text{natural gas}} \text{ (kWh)} = \frac{\text{natural gas (Nm}^3\text{)} \times \text{PCI}_m \text{ (kcal/Nm}^3\text{)}}{860 \text{ (kcal/kWh)}} \quad \text{Energy equivalent to natural gas consumed (93)}$$

PCI_d = 10,000 kcal/kg (net calorific value of diesel oil)

PCI_m = 8,500 kcal/Nm³ (net calorific value of natural gas)

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

$$\text{efficiency (hydroelectric)} = \frac{\text{Energy}_{\text{hydroelectric}} (\text{MWh}) \times 3,6 \times 10^9}{[m(\text{kg}) \times 9,8(\text{m/s}^2) \times h(\text{m})](\text{Joule})}$$

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)
$\text{Energy}_{\text{hydroelectric}}$	= energy produced in the hydroelectric cycle

calculation 4

$$\frac{(E_i)}{(E_i + E_t)} \times \varepsilon_i + \frac{(E_t)}{(E_i + E_t)} \times \varepsilon_t = \varepsilon_{\text{average}}$$

where:

E_i	= total hydroelectricity produced
E_t	= total thermoelectricity produced
ε_i	= hydroelectric efficiency
ε_t	= thermoelectric efficiency
$\varepsilon_{\text{average}}$	= average production efficiency

calculation 5

$$\frac{(E_i)}{(E_i + E_\tau)} \times \varepsilon_i + \frac{(E_\tau)}{(E_i + E_\tau)} \times \varepsilon_\tau = \varepsilon_{\text{average}}$$

where:

E_i	= total hydroelectricity produced
E_τ	= sum of total energy (thermoelectric and thermal) produced
ε_i	= hydroelectric efficiency
ε_τ	= efficiency (thermoelectric + thermal)
$\varepsilon_{\text{average}}$	= average production efficiency

calculation 6

$$\text{efficiency (electric San Vittore)(kWh/kg)} = \frac{\text{Energy}_{\text{electric San Vittore}}(\text{kWh})}{\text{WDF}_{\text{burnt}}(\text{kg})}$$

$\text{Energy}_{\text{electric San Vittore plant}}(\text{kWh}) = \text{electricity produced} = (12)$

calculation 7

$$\text{efficiency (electric Terni)(kWh/kg)} = \frac{\text{Energy}_{\text{electric Terni}}(\text{kWh})}{\text{pulper}_{\text{burnt}}(\text{kg})}$$

$\text{Energy}_{\text{electric Terni}}(\text{kWh}) = \text{electricity produced} = (13)$



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;
- gauged.

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

The reader is reminded that the figures of the energy sector have been 100% calculated since this is the corporate equity investment held by Acea SpA in the companies in the area.

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. Tor di Valle production underwent a decrease, as from 2009, partly following the trend in market prices, unfavourable for this particular type of plant. During 2011, production of the Salisano and Marconi hydroelectric plants decreased considerably since as from mid year repowering work was launched for both. Test and inspection is envisaged in the first few months of 2012. The considerable decrease in Tor di Valle production is attributable, among other things, to the electricity market trend. 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 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 paper-industry pulper for the Terni plant) comprises both biodegradable organic material, therefore neutral with regard to the CO ₂ balance, and non-biodegradable organic substances (plastic, resins. etc.).
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 less	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.

ENERGY SECTOR PRODUCTS**Item No. explanation – comment**

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.
23	Net electricity acquired on the market by: — Sole Buyer for 3,493.75 GWh — Imports for 432.38 GWh — From third party producers interconnected to the Acea Distribuzione network for 20.14 GWh. As from 1 January 2008, the electricity produced by third parties interconnected to the Acea Distribuzione network, typically photovoltaic producers, is withdrawn by the GSE (Electricity Services Management Body) and no longer by the local distributor. — Market for 7,922.74 GWh. The item is measured with uncertainty of $\pm 0.5\%$.
24	Energy requested on the Rome and Formello distribution network by all the connected customers (free + protected + safeguarded). This item is estimated.
25	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.
26	Internal uses of electricity for the performance of distribution activities. The 2011 item is estimated.
27	Electricity transferred to third parties. This involves exchanges of energy between distribution companies. The item is measured with uncertainty of $\pm 0.5\%$.
28	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 $\pm 5\%$. (CEI 13-4 standard). The considerable increase in the item over the last few years is the direct consequence of the process for de-regulating the electricity market underway in Italy since 1999 (Italian Legislative Decree No. 79/99).
29	Net electricity sold to customers in enhanced protection market. The downwards trend is the consequence of the progressive changeover of protected customers to the de-regulated 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.
30	Net electricity sold by Acea on the free market at Italian national level. The item is measured with uncertainty of $\pm 5\%$. (CEI 13-4 standard).
31	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: 1. abatement of efficiency due to the ageing of the lamps; 2. shutdown due to faults; 3. shutdown due to maintenance; it is believed that a more realistic supplied lighting flux figure equates to the item provided, decreased by 20%.
32	Total number of gaugings/checks carried out benefiting the energy area. The item is calculated as the sum of the individual calculations made in 2011 by the pertinent laboratories.


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 introduced onto the distribution networks of the companies listed in item 33.
35	Total drinking water supplied to the respective customers of the companies listed in item 33.
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 (in other words Rome + Fiumicino). This figure is calculated.
40	Total drinking water transported to the Rome historic distribution network (in other words Rome + Fiumicino), net of the losses due to the transportation phase at the sources. The item is measured with uncertainty of $\pm 3\%$. The item was estimated for 2011.
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.
42	Overall distribution losses – Rome historic network. This is the parameter A17 of 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 ³ 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, totalling 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. This is the parameter A15 of 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. The item, calculated, corresponds with total water billed.
46	Total non-drinking water supplied to municipalities other than the Municipality of Rome. 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 + municipalities acquired as of 31 December 2011). This figure is calculated.
51	Total drinking water transported to the Ato 2 distribution network (Rome + municipalities acquired as of 31 December 2011). The item is gauged with uncertainty of $\pm 3\%$. This item was estimated for 2011.
52	Total drinking water supplied (i.e. gauged at the metres, where present) to the customers connected to the Ato 2 network (Rome + municipalities acquired as of 31 December 2011). 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 + municipalities acquired as of 31 December 2011). This is the parameter A17 of 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 + municipalities acquired as of 31 December 2011). This is the parameter A15 of 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 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 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 the 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 MD No. 99/97 defined as the quantity of water lost during distribution. See item 42 for details.



WATER SECTOR PRODUCTS

Item No. explanation – comment

65	Effective distribution losses of Gori (Sarnese Vesuviano). This is the parameter A15 of 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). 2011 estimated figures.
69	Overall distribution losses of Publiacqua (Florence). This is the parameter A17 of 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 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). 2011 estimated figures.
72	Water withdrawn from the 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 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 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 for 2011.
80	Overall distribution losses of Acquedotto del Fiora (Grosseto). This is the parameter A17 of 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 MD No. 99/97. See item 43.
82, 83, 84	Respectively: quantity of water withdrawn, introduced and supplied by Umbra Acque (Umbria).
85	Overall distribution losses of Umbra Acque (Umbria). This is the parameter A17 of 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 MD No. 99/97. See item 43.
87	Total waste water conveyed to main treatment plants of Acea Ato 2 and treated. This figure is calculated.
88	Total waste water conveyed to the treatment plants and treated by Acea Ato 2, 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.
89	Total waste water treated in the main treatment plants of the companies, with the exclusion of Acea Ato 2 (items 87 and 88). 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 LaboratoRI 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 LaboratoRI and the analysis carried out independently by the companies. This figure is calculated.

ENERGY SECTOR RESOURCES USED

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 $\pm 0.5\%$. This item was estimated in 2011 (for the A.R.I.A. share).
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 gauged 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 4,564.48 t as of 31 December 2011. This item is estimated.
103	Total quantity of new gaseous insulator (SF_6) 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. The item was not available for 2009. 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.

ENERGY SECTOR RESOURCES USED**Item No. explanation – comment**

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.
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.



WATER SECTOR RESOURCES USED

Item No. explanation – comment

The figures refer to Acea Ato 2, Acea Ato 5, Gori, Acque, Publiacqua, Acquedotto del Fiora and Umbra Acque.


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 gauged 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.
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 gauged with uncertainty of $\pm 1\%$.

FUELS USED BY GROUP

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 diesel 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 the premises of Acea, Acea Ato 2, Acea Distribuzione and Acea Produzione. This item is measured with uncertainty of $\pm 0.5\%$.
130	Total quantity of LPG (liquid petroleum gas) used for heating premises of the Group: Acea, Acea Ato 2, Acea Produzione. 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 $\pm 0.5\%$.



ENERGY SECTOR SPILLS AND WASTE**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 (NO + 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 (NO + 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 (NO + 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 (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 (diesel) with a low sulphur content in the plants made it possible to sharply contain this type of emission. This figure is calculated.
141	Quantity of sulphur dioxide (SO 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.
142	Quantity of sulphur dioxide (SO ₂) 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. This figure is calculated.




ENERGY SECTOR SPILLS AND WASTE**Item No, explanation – comment**

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. This figure is calculated.
146	Total quantity of waste water treated, deriving from thermoelectric production activities. This item is gauged with uncertainty of $\pm 2\%$.
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. In 2011, the Acea Produzione figure was estimated and includes only the waste produced as from 1 April 2011 - date of establishment of the company - to 31 December 2011. The item includes a portion produced by the Parent Company ascribed in equal parts to the two areas of activities, energy and water. The item is measured with uncertainty of $\pm 2\%$.
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 $\pm 2\%$.
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. In 2011, the Acea Produzione figure was estimated and includes only the waste produced as from 1 April 2011 - date of establishment of the company - to 31 December 2011. The item includes a portion produced by the Parent Company ascribed in equal parts to the two areas of activities, energy and water. The item is measured with uncertainty of $\pm 2\%$.
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 $\pm 2\%$.



WATER SECTOR SPILLS AND WASTE

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. The figure for 2009, exceeding the average, was the result of a diesel oil spill of around 400 tons, dealt with during the year. 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 using the COPERT IV programme.
161	Total quantity of nitric oxides emitted by the Acea Group vehicle fleet. Value calculated using the COPERT IV programme.
162	Total quantity of carbon monoxide emitted by the Acea Group vehicle fleet. Value calculated using the COPERT IV programme.
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 ₂ .

Peschiera aqueduct



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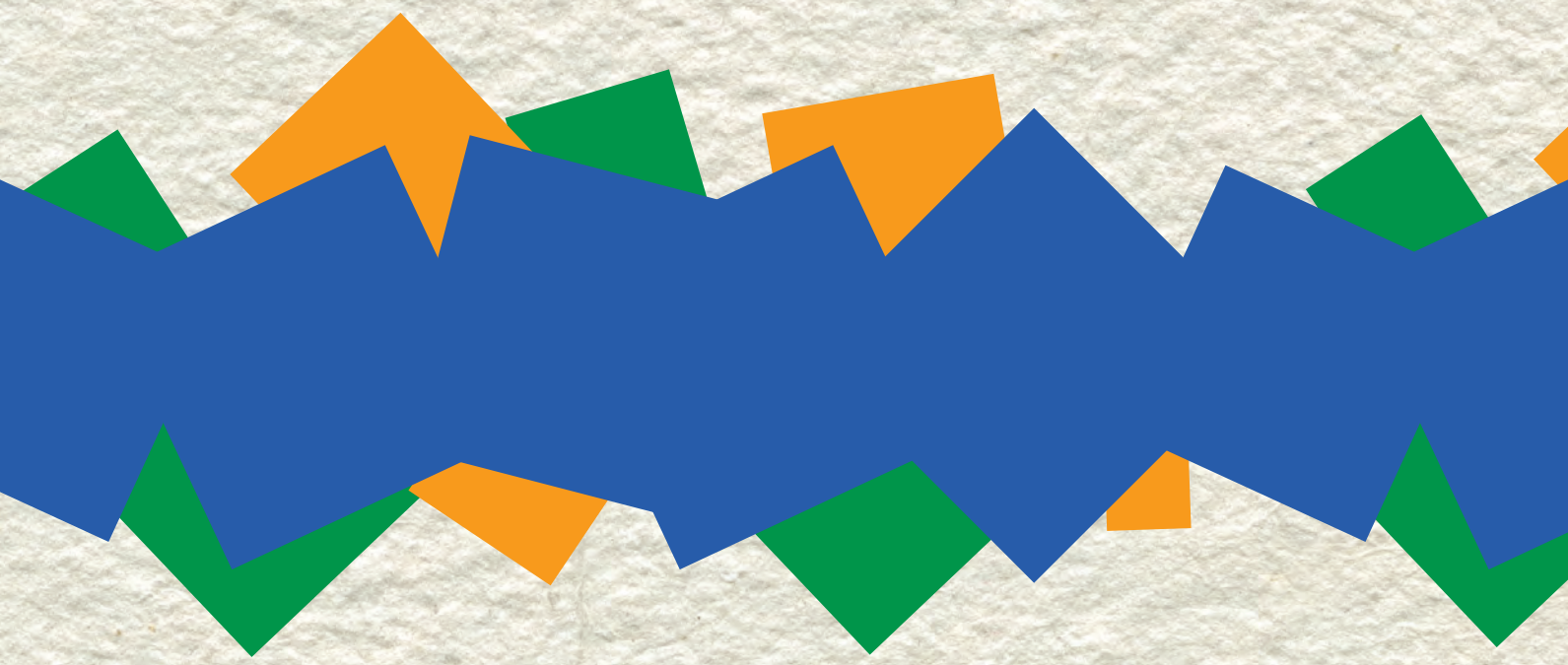
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