Sustainability **Report**

2012





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Letter to stakeholders

Ladies and Gentlemen,

The first five years of sustainability reporting for the A2A Group came to an end with 2012. The Sustainability Report and the annual process leading to its preparation are now well consolidated and have become part of the life of anyone who works in A2A or who is directly or indirectly involved with it. Our ability to measure and represent the phenomena in which the sustainability question arises and to use the report as a way of comparing ourselves to other operators, identifying areas of improvement, has grown over these years. It is no coincidence that after gradually approaching it, this year we have reached the top level (A+) as far as the Global Reporting Initiative international standard is concerned. Important in this growth path was an **involvement campaign** carried out with our interlocutors in November 2012; by using an online survey we asked them to assess not only our Sustainability Report but above all to provide an indication in their answers of the priority commitments that A2A should pursue in the near future in an environmental, social and economic sphere.

All of this took place in what was a key year for the Group, which after renewing its corporate governance bodies then issued its 2013-2015 Business Plan, announcing to the market and more generally to all of its stakeholders its strategic lines and industrial development programmes for the upcoming years. The Plan was given a favourable welcome by the markets, as it shows A2A's wish to tackle realistically, and in a committed manner, the difficult economic and social scenario which is a feature not only of this country but also of the whole of Europe. It is precisely in these circumstances that our responsibility towards our stakeholders (shareholders, employees, suppliers, customers, institutions, communities) becomes even stronger: the expectation that the Group will continue to create value and distribute it throughout the local area, keeping its care for the environment, the quality of its services and social demands at high levels, can be tangibly felt.

A2A responds to this expectation by setting itself the target of strengthening its employed capital structure, in order, in the short to medium period, to achieve industrial growth concentrating on the areas which are the most profitable and provide the highest level of environmental sustainability: cogeneration and urban district heating, the treatment and enhancement of the energy-producing capacity of waste and the repowering of generation plants. These are measures which are fully in line with the National Energy Strategy and the European package of measures known as "20-20-20", whose priorities include economic competitiveness, energy efficiency, the development of renewable sources and a reduction in CO2 emissions.

Following the approval of the Business Plan, the preparatory work for drawing up a **Sustainability Plan** for the Group for 2013-2015 was completed and a summary preview of this is given in this Sustainability Report. The Plan covers economic, social and environmental responsibility, expressing the Group's future commitments and setting out the main measurable quantitative objectives. An extremely important step, also created thanks to increased analytical work and a comparison with the best practices adopted in the sector and the numerous activities carried out which enable us to listen to and involve our interlocutors. This will be followed by a careful, gradual process of operational planning and monitoring which will involve the whole Group in achieving the targets set.

Besides these strategic steps, A2A's 2012 will be remembered from a sustainability standpoint for a number of aspects, and we invite you to go into further detail in this respect when you read the document:

- the distribution of net global value added of 1,238 million euro;
- confirmation of the high proportion of energy produced from renewable sources (35.9%) compared to the national average;
- the positive response of communities to the measures taken to increase differentiated waste collection in Varese, Milan and Bergamo;
- the development of urban district heating networks, with an annual increase of 11% in the volumes served and significant savings in energy resources and reductions in emissions being achieved;
- a considerable improvement in the work accident indices thanks to prevention programmes: in 2012 the Group's frequency index fell by 7.7% over the previous year;
- the constant improvement in the efficiency of producing electricity and thermal energy from waste: 819 kWh of electricity and 713 kWh of thermal energy were produced for each tonne of waste;
- confirmation of the excellent levels of customer satisfaction achieved by the Group's sales and service companies: A2A Energia was ranked first in Databank's 2012 Energy Observatory for the level of residential electricity and gas customer satisfaction;
- the success of the initiatives carried out in conjunction with consumers' associations for spreading a fair commercial practice culture;
- the increasing access of stakeholders (customers, suppliers, shareholders, institutions) to the digital communication tools developed by the Group: more than 600,000 people visited the portal www.a2a.eu in 2012 (representing an increase of 36% over 2011) and over 17,000 used Puliamo, the app dedicated to the Group's environmental services. In addition, the number of people joining A2A Energia's bollett@mail scheme rose by 28%;
- confirmation of adherence to the Global Compact and its universal principles on human rights, labour, the environment and the fight against corruption.

This is a substantial list but one which does not exhaust the list of activities performed and the results achieved by our Group in 2012 from the standpoint of social and environmental responsibility. Activities and results which you can find illustrated in the following pages, with a wealth of information and tables giving maximum substance to this report. We are confident that the daily commitment invested by each individual Group company and by everybody working there will emerge from this report, the commitment to achieve growth that is sustainable from every point of view in the interest of each and every one of our stakeholders.

The Chairman of the Supervisory Board
Pippo Ranci Ortigosa

The Chairman of the Management Board Graziano Tarantini

Javara Varan ?

Introduction and note on methodology

The A2A Group's Sustainability Report

In the A2A Group's business model sustainability is as a strategic element for seeking to achieve growth that is balanced from an economic, social and environmental standpoint. The Sustainability Report, which reaches its fifth edition this year, is the means by which the A2A Group reports annually on the action it has taken and how it has performed with respect to these aspects.

The document provides qualitative and quantitative information in the greatest detail possible on the activities carried out by the Group during the year and their effect on its stakeholders (shareholders, customers, suppliers, employees, collaborators, the public administration, etc.) from an environmental aspect (with matters ranging from the reduction of emissions to the development of energy from renewable sources and from sustainable mobility to energy efficiency), an economic aspect (distributed value added, capital expenditure, etc.) and social aspect (direct and indirect employment, collaboration with local communities, support for initiatives having social and cultural interest, etc.).

In addition to being an essential means by which the Group can communicate with its stakeholders, the document is also used annually as a planning and management tool by A2A management to assess the results achieved and focus on the new targets to be reached.

This report refers to the period from January 1 to December 31, 2012.

Methodology

The Sustainability Report has been prepared in accordance with the standards of the GRI (Global Reporting Initiative) "Sustainability Reporting Guidelines (version 3.1)", together with the Electric Utilities Sector Supplement-Sustainability Reporting Guidelines & Electric Utility (RG Version 3.1/EUSS Final Version).

The collection of the information contained in this report was coordinated internally by the Social Responsibility and Environment functions, involving all the companies and functions concerned which were required to fill out a series of schedules organised for collecting data and information and prepared specifically for sustainability reporting. In further detail, the environmental data were collected through the use of an EMS (Environmental Management System) software application which tracks, checks and approves all the data requested. The term environmental data means both production data (energy, waste treated, etc.) and data on the relative effects (waste produced, emissions, etc.).

The report has been subject to independent external assurance procedures performed in accordance with the principles and recommendations included in International Standard on Assurance Engagements (ISAE) 3000, the international standard for the performance of assurance engagements other than audits or reviews of historical financial information, prepared by the International Auditing and Assurance Standards Board (IAASB), a body forming direct part of IFAC - the International Federation of Accountants. The data

relating to Scope 1, 2 and 3 CO2 emissions presented on page 76 are the same as those reported as part of the Carbon Disclosure Project questionnaire for 2012, on which the auditor of this Sustainability Report was requested to perform specific testing procedures.

A navigable version has been prepared for the website which enables the document to be read on several levels: index, a table linking with the GRI standards, reference stakeholders.



Scoping logic

The scoping used in the preparation of the report depends on the various sections. For **Economic Responsibility**, the scope is the same as that used for the consolidated financial statements of the A2A Group.

For **Environmental and Social Responsibility**, the companies in which A2A has a holding of more than 50% and which are part of the Group for the whole year are included in the report (as a result, any companies which are bought or sold/wound up during the year are not considered). The concept of materiality by impact in environmental or social terms is then applied to these companies in the following way:

- for environmental aspects: companies having industrial activities;
- for social aspects: for PERSONNEL, companies having at least one employee; for CUSTOMERS, companies having commercial activities; for SUPPLIERS, companies which do not hold exclusively financial investments.

In the case of companies included in the scope which in turn hold equity investments, investments are evaluated using the same reasoning (a holding of more than 50%, present the whole year, material from an environmental or social standpoint). Owned or leased plants are consolidated at 100% if they appear as the fixed assets of consolidated companies. Plants which do not appear as the fixed assets of consolidated companies but which are material (e.g. the Acerra waste to energy plant) are dealt with by using specific captions.

Companies in which an interest equal to or less than 50% is held or which are not part of the Group for the whole year but are material from an environmental and/or social standpoint may be dealt with by using summarised captions and/or specific sections and/or qualitative information (for example the Montenegro company EPCG).

Plants in which A2A has a joint holding (which may be less than 50%) and which are material are consolidated on a proportionate basis. As a result, the Mincio Thermoelectric Power Station has been consolidated on a proportionate basis at 45% as far as its environmental data are concerned.

The following table provides a summary of the means by which the various Group companies forming part of the consolidation are accounted for in this report.

O1 CONSOLIDATION SCOPE OF A2A GROUP COMPANIES FOR THE 2012 SUSTAINABILITY REPORT

Company 2012	Environmental Importance	Personnel Importance	Customer Importance	Supplier Importance
A2A S.p.A.	Yes	Yes	-	Yes
A2A Reti Gas S.p.A.	Yes	Yes	Yes	Yes
A2A Reti Elettriche S.p.A.	Yes	Yes	Yes	Yes
AMSA S.p.A.	Yes	Yes	Yes	Yes
A2A Calore&Servizi S.r.L.	Yes	Yes	Yes	Yes
Selene S.p.A.	-	Yes	Yes	Yes
A2A Servizi alla Distribuzione S.p.A.	Yes	Yes	Yes	Yes
A2A Energia S.p.A.	-	Yes	Yes	Yes
A2A Trading S.r.L.	Caption*	Yes	Caption*	Yes
Partenope Ambiente S.p.A.	Caption *	Yes	-	Yes
A2A Logistica S.p.A.	Caption *	Yes	-	Yes
A2A Ciclo Idrico S.p.A.	Yes	Yes	Yes	Yes
Ecodeco S.r.L. and subsidiaries	Yes	Yes	Yes	Yes
Aspem Energia S.r.L.	-	Yes	Yes	Yes
Aprica S.p.A.	Yes	Yes	Yes	Yes
Abruzzoenergia S.p.A.	Yes	Yes	-	-
Retragas S.r.L.	Yes	Yes	Caption *	Yes
Aspem S.p.A.	Yes	Yes	Yes	Yes
Varese Risorse S.p.A.	Yes	Yes	Yes	Yes
Camuna Energia S.r.L.	Yes	Yes	Yes	Yes
Plurigas S.p.A.	-	Yes	Caption *	Yes

^{*}The subject may be dealt with in a text included in a separate caption

The following are therefore not consolidated in the scope for environmental and social responsibility:

- Assoenergia S.p.A. (in liquidation)
- A2A Montenegro d.o.o. (financial investment)
- Montichiariambiente S.p.A. (immaterial operations)
- Ostros Energia S.r.l. (in liquidation)
- A2A Alfa S.r.l. (financial investment)
- Proaris S.r.l. (immaterial operations)
- Delmi S.p.A. (financial investment)¹
- Mincio Trasmissione S.r.l (immaterial operations)
- SEASM S.r.l. (immaterial operations)

Compared to the 2011 scope for the Sustainability Report, Coriance S.a.S., which was sold on September 27, 2012, is no longer present.

Compared to the scope for the Group's consolidated financial statements, Edipower² (purchased in 2012), Ecofert and EPCG (with an interest of less than 50%) are not included as far as environmental and social responsibility are concerned.

¹ The deed for the merger of Delmi S.p.A. into Edipower S.p.A. was signed on December 18, 2012 and the merger is effective from January 1, 2013.

 $^{{\}small 2\atop Edipower\,has\,prepared\,its\,own\,Sustainability\,Report\,for\,2012\,which\,may\,be\,found\,on\,the\,company's\,website.}$

Materiality

The term "materiality" means the extent to which an item of information is significant for inclusion in the contents of the Sustainability Report. The materiality of the 2012 Sustainability Report has been established on the basis of a series of elements and numerous meetings of the workgroup. More specifically, the decision was taken on the basis of:

- the GRI guidelines;
- the requirements of the main ethical rating assessment companies (Carbon Disclosure Project, Vigeo, SAM, etc.):
- a survey carried out by A2A on the Sustainability Report;
- specific meetings with Group companies and management;
- the annual internal kick-off meeting for the Sustainability Report,
- meetings with consumers' associations;
- media analysis.

The analyses carried out into the distribution of the 2011 Sustainability Report and the way in which it was received have provided interesting results which are also useful for making improvements for the future. In particular, from the survey carried out in November 2012 involving customers and visitors to the A2A website (for further details see the section "Sustainability Plan") it emerged that 43% of the sample questioned had heard of the Sustainability Report, and an average rating of 7.13 (on a scale of 1 to 10) was given to the document; 50% of the sample had had the possibility of reading it, and these people believed that taken as a whole it is clear and easy to read.

Among the noted areas for improvement, taken into consideration when preparing the document, the following were mentioned the most often:

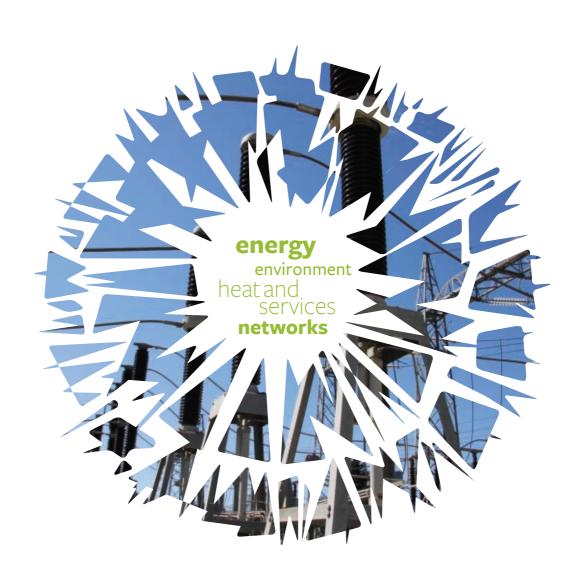
- greater visibility of social and training activities at a local level;
- a clearer analysis of plant emissions;
- further details about renewable energy;
- figures on hiring/dismissals and an employment summary;
- more detailed analyses of differentiated collection.

In addition, a specific meeting was held with the consumers' associations in November 2012 to discuss the Sustainability Report; a number of ideas emerged from that meeting to improve the contents of the section on customers and, in general, the way the document is laid out.

In order to involve the whole of the Group's organisation and to make people aware of A2A's commitment to sustainability matters, each year Group companies and management are involved in specific meetings and in a Group meeting where the documents for drafting the Sustainability Report (contents, scope, etc.) are presented and the main subjects to be analysed in the document are discussed.

All of these initiatives gave rise to the contents of this 2012 Sustainability Report.

1.0 | The A2A group



the biggest italian multiutility

It is the biggest Italian multiutility in terms of revenues and operating income. Following the acquisition of Edipower in 2012 it became the second biggest Italian operator in electricity generation, with 12 GW installed; it is a leader in both the environment sector and the district heating sector.

The diversification of the sectors and areas in which A2A operates make it a protagonist not only at a national level, as it is today, but also at an international level.

With the approval of the 2013-2015 Business Plan, the Group has placed a strong idea of business growth at the centre of its operations, one capable of combining the economic value of its decisions with the protection of jobs and the environment.

Development projects will be started up in sectors - environment and district heating - which set themselves apart for their high level of environmental sustainability in terms of emissions and the deployment of resources, and where room in the market is greater and where the competitive advantage already to be found in A2A's know-how is more evident.

A2A is listed on the Milan Stock Exchange.

O2 The structure of the A2A Group (at December 31, 2012)

			А	.2A			
51,00% Delmi ⁽³⁾	100,00% A2A Trading	100,00% A2A Energia	100,00% Amsa	100,00% A2A Calore &Servizi	100,00% A2A Reti Elettriche	100,00% A2A Reti Gas	100,00% Selene
70,00% Edipower	70,00% A2A Alfa	100,00% Aspem Energia	100,00% Ecodeco	60,00% Proaris	100,00% A2A Ciclo Idrico	100,00% A2A Servizi alla distribuzione	100,00% A2A Logistica
20,00% Edipower ⁽¹⁾	50,00% Premiumgas	33,33% Lumenergia	99,99% Aprica		90,00% Aspem ⁽³⁾	91,60% Retragas	21,94% ACSM-AGAM
	70,00% Plurigas	43,70% EPCG	100,00% Partenope Ambiente			74,50% Camuna Energia	7,91% Dolomiti Energia
	100,00% Abruzzoenergia	39,49% Rudnik Uglja ad Pljevlja				49,15% ASVT ⁽²⁾	
	50,00% Ergosud						
	50,00% Metamer		(2) Of which 0.38%			nare capital	EnergyEnvironmentHeat and ServicesNetworksOther companies

SIGNIFICANT CHANGESIN THE CORPORATE STRUCTURE

The path undertaken on the birth of the Group came to completion in 2012, with the conversion of the various financial shareholdings into industrial assets.

A fundamental step along this path was the overall reorganisation of the investments in Edison and Edipower, which during 2012 led to a significant discontinuity in the structure of the business. As a result of this operation, the Group's production mix has benefited from the entry of Edipower's hydroelectric plants among other things, strengthening A2A's presence in production from renewable sources.

In parallel with this operation A2A also continued in 2012 with the implementation of a strategy of rationalising its employed capital and improving its financial position by selling its non strategic operations.

From a disposal standpoint, the most significant operations carried out during the year were those relating to 98% of the share capital of a2a Coriance and 25.7% of Metroweb.

The shareholding in A2A Coriance was sold to KKR Global Infrastructure Investors L.P. in September and, together with the repayment of intercompany debt, provided A2A with proceeds of approximately 70.5 million euro.

A2A had acquired Coriance in 2008, with the French company increasing its turnover by 50% in four years and more than doubling its EBITDA.

The holding in Metroweb was sold by exercising a put option with F2i Reti TLC S.p.A., which was already the majority shareholder of Metroweb. A2A received proceeds of approximately 61.1 million euro and realised a gain of around 35 million euro.

In addition, a number of other transaction were completed in 2012 which, although for smaller amounts, made a positive contribution to the Group's performance and rationalisation.

The A2A Group operates mainly in the production, sale and distribution

of gas and electricity, in district heating and in the environment and integrated water cycle sectors.

These areas can be traced to the four "sectors" of the Group as shown in the table below. The Group's structure and its diversification enable it to provide a vast range of services and meet the various needs of its (private and business) consumers.







O3 Sectors of the A2A

ENERGY	HEAT & SERVICES	ENVIRONMENT	NETWORKS	OTHER SERVICES &t CORPORATE
Thermoelectric and hydroelectric production	Cogeneration plants	Collection	Electricity networks	Otherservices
Energy Management	District heating networks	Treatment	Gas networks	Corporate services
Sale of electricity and gas	Sale of heat and other services	Disposal and energy recovery	Integrated water cycle	



A description of the sectors and the related quantitative and economic data may be found in the 2012 Report on Operations published on the website

www.a2a.eu

1.1 Size of the organisation and markets served

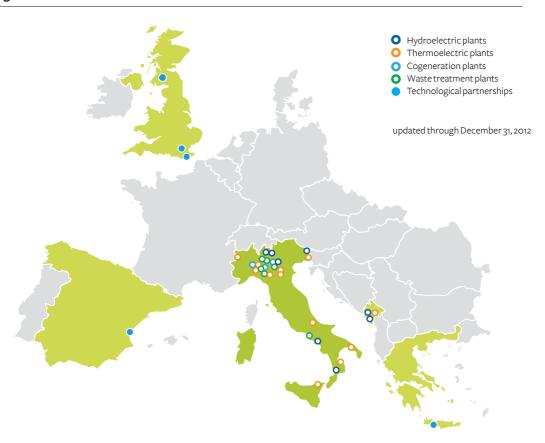
The information shown in the following table and in the picture refers to the consolidation scope of the A2A Group's consolidated financial statements.

O4 Size of the organisation

Size of the organisation	2010	2011*	2012
Revenues (M€)	6.041	6.130	6.480
Gross operating income (M€)	1.040	924	1.068
Net income (M€)	308	-423	260
Dividend (€ per share)	0,096	0,013	0,026
Market capitalisation	3.224	2.276	1.370
A2A persons	12.293	11.886	12.563
Installed capacity (GW)	6,5	6,6	12,0
Electricity produced (GWh)**	16.890	14.391	16.107

^{*} The figures for 2011 have been reclassified to reflect the application of IFRS 5

O5 Markets served



^{**} Electricity produced relates to the thermoelectric plants (CCGT, oil and coal plants) and hydroelectric plants of A2A, Edipower and EPCG.

1.2 Companies outside the consolidation scope

Consistent with the 2012 corporate scoping logic, the figures for Edipower and the Montenegro company EPCG are not consolidated in the A2A Group's Sustainability Report. As both companies are relevant from both an environmental and social standpoint, certain summarised information is provided as follows.

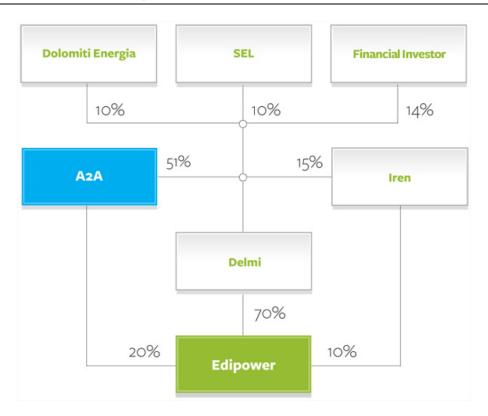
Reorganisation of the shareholdings in Edison and Edipower

In accordance with an agreement signed on May 5, 2012, on May 24, 2012 the key points regarding the reorganisation were established as follows:

- 1. Delmi S.p.A., a company in which A2A S.p.A. has a 51% controlling interest, together with the participation of other Italian shareholders (Iren, Sel, Dolomiti Energie and financial investors), acquired 70% of Edipower S.p.A. from Edison S.p.A. (50%) and Alpiq S.A. (20%) at a total price of 883.7 million euro;
- 2. Delmi S.p.A. **sold its (50%) interest in Transalpina di Energia S.r.I.** (the holding company controlling Edison S.p.A. since 2005) to WGRM 4 Holding S.p.A., a company wholly owned by EDF S.A., at a price of 783.7 million euro;
- **3.** Edipower S.p.A. will enter **an agreement for the supply of approximately 1 billion cm of gas** by Edison for six years at market terms and conditions.

On December 18, 2012 the deed for the merger of Delmi S.p.A. into Edipower S.p.A. was signed. This operation, which became effective on January 1, 2013, has simplified the chain of control in Edipower S.p.A., consistent with the strategy lines established in the A2A Group's business plan.

O6 Edipower's shareholding structure at December 31,2012



O7 Edipower: plant portfolio

Plant	Technology	Nominal power(MW)
Thermoelectric plants		6,278
Chivasso (T0)	Natural gas combined cycle (CCGT)	1,179
Turbigo (MI)	Natural gas/fuel oil and gas combined cycle (CCGT)/ (CCGT)	1,170
Piacenza	Natural gas combined cycle (CCGT)	855
Sermide (MN)	Natural gas combined cycle (CCGT)	1,154
Brindisi	Coal	640
San Filippo del Mela (ME)	Fuel oil	1,280
Hydroelectric plants		759
Mese (S0)	Reservoirs (5 plants); dams (2 plants); flowing water (5 plants)	374
Udine	Reservoirs (2 plants); dams (1 plant); flowing water (5 plants); mini- hydro/running water (18 plants)	289
Tusciano (SA)	Reservoirs (1 plant); flowing water (6 plants)	96
Photovoltaic plants		3.448
Chivasso (TO)		0.869
Sermide (MN)		0.998
Brindisi		0.717
San Filippo del Mela (ME)		0.864
TOTAL INSTALLED CAPACITY		7,040.448



Edipower publishes its own Sustainability Report. For further details see the company's website www.edipower.it

2.0 Strategies and policies for sustainability



2.1 Mission and vision

The A2A Group seeks to achieve a level of services that can provide full satisfaction to its interlocutors, placing all its initiatives in a framework of Sustainable Development, in order to excel in energy, the environment, district heating and network services by aligning itself to the increasing competitiveness and complexity of the sectors in which it operates at both a national and international level.

The Group's mission is to:

- consolidate and develop its position of importance in the market, steadily increasing its value and extending its service portfolio by combining with companies in the sector;
- provide its services by ensuring quality, safety and respect for the environment to its interlocutors (customers, employees, residents, suppliers, institutions, shareholders, financial partners);
- produce and distribute services by adopting innovative technologies that are suitable for meeting the
 needs of technical, economic and environmental efficiency, with particular emphasis on the effect of its
 operating activities on climate change.

2.2 Commitments and objectives for the future

The A2A Group's **2013-2015 Business Plan** and **medium-long term lines of direction** were approved in November 2012.

In the short term, the Group proposes to obtain a rapid improvement and stabilisation of its financial situation through:

- targeted sales of minority holdings;
- increased operating efficiency and the selective allocation of investments;
- organic growth in profitability in the four core business areas (Energy, Environment, Heat, Networks) with the consolidation of current leadership positions.

In the medium-long term, by leveraging on the capital strengthening that it has carried out the Group is gearing itself to industrial growth by making investments focused on areas with the highest level of profitability and environmental sustainability, such as:

- waste treatment and waste to energy plants;
- cogeneration systems and urban district heating;
- · generation plant repowering.

In line with those objectives and priorities, the main strategic measures that have been decided are as follows:

a. Combination, reorganisation and development of the Group's activities in the Environment Sector

Waste collection, waste treatment and the recovery of energy from waste, activities which are currently spread throughout various Group companies, will be combined together in one single entity: A2A Ambiente. In the short term this combination will already translate into significant increases of efficiency and effectiveness on the market. In the medium-long term, A2A Ambiente will develop its waste treatment capacity further through new plants, to arrive at representing around a third of the Group's total earnings.

b. Acceleration of the development of district heating networks in Lombardy

A2A is the leader in Italy in urban district heating, operating in Milan, Brescia, Bergamo and Varese. The areas where it is currently present provide a wide range of opportunities for developing district heating networks, which present significant benefits in terms of energy efficiency and the reduction of atmospheric pollutants.

For the city of Milan and a part of its metropolitan area, work is currently taking place on an important

infrastructure project which consists of the construction of a heat transportation backbone from the Cassano d'Adda power station to the city. This project, which does not require any production strengthening at the Cassano site, will end up satisfying over 25% of the total heat requirements of the city of Milan, thereby assuming significant importance for reaching energy efficiency objectives at a Lombardy regional level and at a national level, and reducing pollution in the urban area of the city.

c. Integration of the Energy Sector's activities following the acquisition of Edipower

Following the acquisition of Edipower, A2A has become the second leading operator in Italy today in electricity generation, with 12 GW installed, an average annual production of approximately 20 TWh and a production mix geared to renewable sources (hydroelectric and waste to energy represent around 30% of production).

The benefits of this acquisition in terms of the effectiveness of managing the plant portfolio and optimising dispatch are already evident and are on their way to full realisation.

A swift and complete process of the integration of Edipower will already produce significant additional benefits in the short term in terms of efficiency and cost savings.

d. Capital strengthening

An essential requirement for boosting A2A's investment and growth is the strengthening of its capital structure. To this end a series of measures will be carried out to reduce debt, including: selling minority shareholdings in operating companies, keeping control and industrial management; the optimisation of working capital management and the selective allocation of funds geared to investments; the disposal of a number of residual non-core activities.

e. Increases in efficiency and cost reduction

A2A will carry out a series of measures aimed at increasing operating efficiency and reducing costs. In particular, the above-mentioned projects for integrating and reorganising activities in the Environment and Energy Sectors will lead to a significant reduction in operating costs. Across the board measures will also be carried out to cover all of the various business areas in which the Group operates, designed to increase productivity, improve processes and reduce costs, in both operating activities and at a corporate level.

The Group's strategic steps for the next 3 years are in line with the National Energy Strategy (SEN), the paper which will lead the development of the energy sector in Italy in the medium and long term (see also the section "Institutions and Local Communities" in Chapter 5).

Taken together, the above activities will produce the following expected results for the A2A Group by the end of the Plan's term (2015):

- EBITDA: 1.3 billion euro, corresponding to an increase of approximately 280 million euro over 2012;
- NET DEBT: 3.2 billion euro, a decrease of approximately1.4 billion euro over 2012;
- PLANNED CAPITAL EXPENDITURE in the period 2013-2015: 1.2 billion euro.

2.3 Sustainability Plan

The Group's new Sustainability Plan was updated in 2012. In order to establish the objectives and correctly assess A2A's positioning with respect to international best practices, an analysis was performed of the ratings of the leading ethics evaluation agencies in an attempt to bring to light the risks and opportunities as far as sustainability is concerned. A summary document was presented to the management and subsequently to representatives of all the companies/departments of the Group. Meetings were then held with all the managers of the companies/departments to collect proposals for objectives, commitments and activities to be included in the plan.

In November 2012 a campaign was launched for involving stakeholders having a simple, direct message: **Sustainability. Listen to improve".** The objective of the campaign was to invite A2A's stakeholders (customers, suppliers, investors, representatives of the institutions and in general all the people involved in its activities) to take part in identifying the social, economic and environmental issues in which the Group should be more heavily committed. At the centre of this activity was an online questionnaire in which stakeholders could give marks to A2A's commitment and express their preferences as to the practical objectives which the Group should be aiming at: matters ranging from the development of environmental sources to safety at work, from the distribution of wealth throughout the local area to environmental education.



Over 3,400 people responded to this appeal, members of the main stakeholder categories. More specifically: customers (57%), people living close to the Group's plants (52%), employees (31%), suppliers (6%) and shareholders (5%). A representative sample of a section of people who are especially sensitive to sustainability issues.

With marks ranging from 1 (very bad) to 10 (excellent), the average figure for A2A's social, environmental and economic responsibility was 6.85, with a certain consistency found in the opinions expressed by various stakeholders. Leading the way in positive appraisals were the aspects regarding the environment and worker safety.

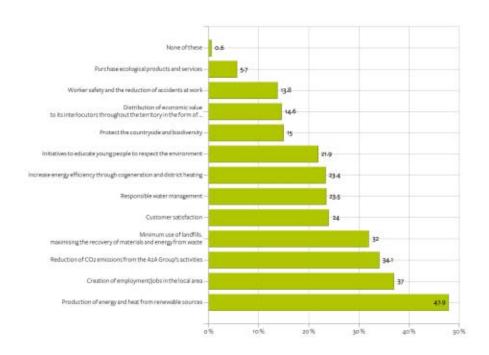
13 Stakeholder listening campaing: marks given to A2A for social, environmental and economic responsability

	Average mark
Aims at increasing energy efficiency through cogeneration and district heating	7.88
Is attentive to worker safety and reducing accidents at work	7.77
Produces energy and heat from renewable sources	7.43
Reduces the use of landfills to a minimum, maximising the recovery of materials and energy from waste	7.43
Is attentive to reducing emissions from its plants and activities	7.25
Manages water in a responsible way	7.25
Supports initiatives for educating young people to respect the environment	7.22
Is attentive to customer satisfaction	7.07
Protects the countryside and biodiversity	6.95
Gives priority to the purchase of ecological products and services	6.93
Creates employment/jobs in the local area	6.87
Distributes economic value to its interlocutors throughout the territory in the form of dividends, wages, interest, taxes, duties, donations, etc.	6.43

The matters most frequently mentioned by the participants in the survey were those connected with the use of renewable energy sources and the creation of local jobs.

The recommendations collected were also all used to draw up the Sustainability Plan.

14 Stakeholder listening campaign: priorities for A2A for the next three years



The following table sets out the commitments undertaken in the Sustainability Plan and provides details of the state of activities in 2012.

15 Sustainability plan

SUBJECTS/ STAKEHOLDERS	COMMITMENT	INDICATOR	2012	ACTIVITIES/RESULTS IN 2012
	Develop stakeholder engagements			Carried out numerous initiatives involving stakeholders as reported in the section "Stakeholder chart and engagement initiatives" and in the specific paragraphs relating to the various stakeholders
Governance	Define a Group sustainability policy			Carried out benchmarking to check the dissemination of Sustainability Policies in other listed utilities/companies
	Review the Quality, Environment and Safety Policy			Due to be approved in 2013
	Sustain economic development in the local area in which the Group operates through direct employment and the spin-off work generated by its activities			Hired 386 employees, of whom 35% on a permanent basis. Group companies operating in Italy issued more than 9,000 orders for a total of over 685 million euro gross
Economic responsibility	Distribute value to stakeholders	Net global value added distributed (€)	1,238	37% is distributed through staff remuneration; 4% through the remuneration of risk capital; 16% through the remuneration of debt capital, 18% through transfers to the public administration; 7% through transfers to local communities; and 18% through the remuneration of the Group
	Make investments in production capacity	Capital expenditure (€)	353	See details in paragraph 3.4"Economic Responsibility"
	Minimise direct emissions of greenhouse gases	C02eq (t)	5.4	88% of emissions come from thermoelectric sources and around 10% from emissions due to methane coming from the distribution network, while the remaining emissions are due to biogas not captured at landfills (1%) as well as transport and other small sources of emissions
Environmental	Minimise indirect emissions of greenhouse gases	CO2eq (t)	0.1	These relate to CO2 emissions associated with purchased electricity consumed in A2A. The decrease of 15% over 2011 is mainly due to the transfer of energy by the Group's plants from consumption to self-consumption
responsibility	Keep the proportion of energy produced from renewable sources high	Production of renewable energy as a proportion of total energy (%)	35.9%	Hydroelectric production in 2012 amounted to 2.63 TWh. In 2012 installed electric power from all the Group's renewable sources amounted to around 30% of the total, while the corresponding production of electricity from renewable sources reached 36%
	Minimise the consumption of water used in producing energy	Water consumption (thousand of cm)	8,616	A2A is constantly engaged in carrying out measures to improve the use of water; for the consumption reduction projects see paragraph 4.2.2. "Managing the environmental aspects."
Employees	Develop systems of systematic listening	People in volved in employee satisfaction surveys as a proportion of the total number of employees (%)	.100%	A survey was carried out in July 2012 to understand the opinions and expectations of employees concerning internal communications and the services which A2A could provide to improve the quality of life at work and outside work. The results of this survey are set out in the section "Stakeholder chart and engagement initiatives"

SUBJECTS/ STAKEHOLDERS	COMMITMENT	INDICATOR	2012	ACTIVITIES/RESULTS IN 2012
	Use sustainability parameters in appraising performance	Employees appraised using CSR parameters in the performance appraisal system as a percentage of the total (%)	47%	All managers, middle managers and white-collar workers are appraised on the skills which regard the sustainability value: "Care in the use of resources and respect for the rules"
Employees	Limit fixed-term employment contracts	Employees having fixed-tem contracts as a percentage of the total (%)	1.50%	98% of employees are hired with a permanent employment contract (+2.3% over 2011) confirming the use by A2A of a stable contractual formula and the marginal use of flexibility tools for specific emergency situations (extraordinary and temporary peaks of work, seasonality, substitution of workers who are temporarily absent)
	Reduce the frequency of accidents through the use of a training and prevention plan	Accident frequency index	ENERGY SECTOR: 8.9 ENVIRONMENT SECTOR: 71.9	There was a general improvement in the accident situation in 2012 compared to the previous year. A fall of 29% in the frequency and 50% in the severity of accidents was registered in the Energy Sector; there was a more limited fall in the Environment Sector, which is characterised by a greater level of risk due to the higher manual content of the work and the interaction with equipment and the chaotic surrounding city environment, but appreciable all the same: -3% in frequency and -20% in severity. A total of 57,781 hours of health and safety training were given in the A2A Group in 2012 (+30% over 2011)
	Develop systems of systematic listening			A2A Energia carries out an annual survey of protected market customers to obtain feedback from these people and identify the level of perceived satisfaction. The first survey into the level of perceived satisfaction and service quality was carried out in 2012 using a sample of approximately 1,500 domestic customers and micro-businesses on the free market who are supplied with gas and electricity (both situations are described in the "Electricity and gas distribution" in the "Customers" chapter). Amsa carries out an annual check on the quality of the services it provides to residents by performing a customer satisfaction survey. In 2012 this survey concentrated on waste collection services, street cleaning, special services and services on request and relations with residents. Ecodeco carries out a customer satisfaction analysis every two years for two types of service waste disposal and engineering (the surveys are described in the section "Environmental Services" in the "Customers" chapter)
	Maintain customer satisfaction levels (A2A Energia)	A2A Energia customer satisfaction index	95.1 % (1st half year 2012)	The figure for the general index for customer satisfaction with the way the A2A Energy call center works was 95.1%, in line with the first half of 2011 and higher than the second half (+1.2%), and in any case well above the national average (+5.8%)
Customers	Develop web and mobile services	Number of customers who have joined the bollett@mail scheme	154,988	Launched in June 2012, the first (free of charge) mobile application realised by the A2A Group for the environment is called "PULlamo", which in addition to encouraging collaboration between the Group and residents for city cleaning also contains information services useful for simplifying to a maximum differentiated collection and the correct way of transferring waste. This is added to the App developed by A2A in 2011 for locating the charging columns for e-moving electric mobility. The number of people joining the bollet@mail service increased further in 2012, due among other things to the promotion of the service through a prize competition advertised by including an information sheet in over 1.5 million bills
	Extend loyalty programmes	Number of customers who are members of loyalty programmes (Chiara2a)	59,719	A new loyalty programme was launched in 2012 for A2A Energia's domestic custonners. This programme consists of collecting points which can then be converted into spending vouchers or used to obtain benefits and discounts with over 400 partners throughout the local area
	Extend the application of the joint settlement procedure			The joint settlement procedure was set up in 2010 as a means of achieving a speedy resolution of any disputes with customers; 17 consumers associations have joined this project, called for by A2A, followed by the business federations. Aspem Energia, an A2A Group company, joined on January 1, 2012

	Carry out multilingual and audio language campaigns			The "Guide to reading your energy bill" has been prepared in 6 foreign languages: English, French, Spanish, Arabic, Chinese and Romanian. In Milan, Amsa has produced the "Guide to differentiated collection" in 8 languages: English, French, Spanish, Arabic, Chinese, Sinhalese, Ukrainian and Romanian. In Bergamo, Aprica has produced a booklet on the collection of plastic in 6 languages: Arabic, Chinese, English, Romanian, Spanish and Ukrainian
	Spread a safety at work culture among suppliers			A procedure entitled "Way of managing safety aspects in contracted activities" is used A2A which requires controls to be carried out at all the stages of the contractual management process. In 2012 there were eight accidents lasting longer than three days relating to activities carried out by the Group's subcontractors, for a total of 149 accident-days. The accident frequency and severity indices were 22.5 and 0.4 respectively
Suppliers	Strengthen green procurement			Certain examples of green procurement set up in 2012: - the use of 95%-100% biodegradable synthetic hydraulic oil for the hydraulic control units of the hydroelectric plants if the Vatellina, Calabria and Brescia has begun; - plant staff in Vatellina have been equipped with portable LED lamps instead of halogen/incandescent lamps; - reusable technical rags are used for the mariterance of Annsa vehicles which are washed after use and reused, reducing the quantity of materials that have to be disposed of
	Encourage the use of suppliers with QES certifications	Value of orders to certified suppliers as a percentage of the total value of orders (%)	%05 <	All Group companies carry out a systematic collection of information concerning whether suppliers are QES certified. More than half of the 3,500 qualified suppliers (at December 31, 2012) on the A2A portal have at least one certification (either ISO 9001, ISO 14001 or OHSAS 18001)
	Carry out/encourage environmental education activities	Number of people visiting the Group's plants	19,245	Numerous environmental education activities have been carried out for the local communities in the areas in which the Group operates, which are addressed to adults, young people and children, with a specific focus being placed on the school population (see also the section "Environmental education" of the "Institutions and local communities" chapter)
Communities	Collaborate with environmental and consumer associations	Number of projects started up on the basis of meetings with residents/associations	œ	In 2012 A2A put its commitment into practice by monitoring, listening to and involving the consumer and environmental world (see also the section "Dialogue with the institutions" of the "Institutions and local communities" chapter)

2.4 Partnerships and awards for sustainability

A2A is a member of Global Compact, the United Nations initiative for promoting the culture of business citizenship, which encourages companies throughout the world to create an economic, social and environmental framework for realising a healthy and sustainable world economy which is able to guarantee everyone the opportunity of sharing its benefits.

The A2A Group observes and promotes these universal principles in the four areas in which the Global Compact is involved:

• **Human rights**: A2A fully observes the current legislation of the European Union and the countries in which its employees work (Italy and Spain). In 2012 the group did not encounter any situations which might be considered possible violations of the human rights of employees, customers or national and local communities; it was



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- not subject to any legal action regarding violations of this kind and was not in any way involved in episodes of child or forced labour. Regarding the respect for human rights in the supply chain, it should be noted that only 0.2% of the value of orders made in 2012 involved non-EU suppliers, mainly located in the USA, a country where basic human rights are respected.
- **Labour rights**: A2A guarantees its employees all employment rights: collective bargaining, freedom of association, equal opportunities and health and safety policies (further details on these matters can be found in the section "A2A People" of this report).
- **Environment**: minimising the environmental impact of its activities to the utmost is one of A2A's main objectives, affirmed in the Group's Quality, Environment and Safety Policy which regards all the important environmental aspects that concern or involve A2A, such as: the efficient use of resources, containing emissions and the impact of activities on biodiversity and the countryside, the fight against climate change, sustainable waste management (the activities carried out by the Group and its performance in 2012 in this area are presented in the section "Environment Responsibility" of this report).
- The fight against corruption: A2A implements the Organisation, Management and Control Model pursuant to Legislative Decree no. 231/01, which is applicable to all Group companies (the way in which the model is applied is discussed in the paragraph Corporate Governance Tools of this section of the report).

In 2012, A2A took active part in human rights and sustainable supply chain workgroups set up by the Italian network of the Global Compact.

The Montenegro subsidiary EPCG participates in the project launched by the Clinton Global Initiative, which sees Podgorica as a city involved in the Smart Meters project for a sustainable consumption of electricity. Under this project 175 thousand "smart" meters will be installed by 2014, of which 75 thousand had already been installed by January 2013. The total investment amounts to around 45 million euro and the expected benefits are: the reduction of the illegal usage of energy, greater accuracy in reading consumption and a reduction in manual readings.

In 2011 A2A received a number of important awards for projects having environmental and social value:

on October 23 2012 at the conference entitled "Utilities in favour of Italy's economic and social development. The excellence of public services for the rebirth of this country", A2A received the "**Top Utility Award for Sustainability**" "for the efficiency of its production processes (fewer resources used), for the commitment shown towards its employees (training and safety in the workplace) and for the attention given to environmental and social issues (no penalties for environmental violations, a very accurate and precise Sustainability Report).





In addition, A2A, was one of the finalists in the environment category of the tenth edition of the Sodalitas Social Award, for the television programme for children "Get to know the environment and energy". Based on a series of quizzes, the programme was created to involve the younger generations, fourth and fifth grade primary school students and first grade secondary school students, and make them more aware about the importance of our planet's urgent environmental and energy issues.

2.5 Corporate Governance

2.5.1 Corporate governance bodies

The Company has adopted the dual system of management and control pursuant to articles 2409-octies and following of the Italian civil code. The chart below sets out its main corporate bodies.

Internal Control Committee

The Committee has the duties assigned to it by law, the Corporate Governance Code for listed companies and the corporate bylaws and any duties specifically assigned by Company regulations and/or by virtue of resolutions of the SB.

In addition, the Committee has the following duties:

- to assist the SB in assessing the internal control system, with particular regard to the control of risks, the information and accounting system and the working of the internal audit function; in particular, the Committee supports the SB in performing the supervisory and control functions specified by law and by the Company's bylaws;
- to assist the SB in reviewing and approving, where necessary, the nnual and consolidated financial statements, the half-yearly financial report and any interim management report sent by the Management Board.

Shareholders' Meeting

- Appoints and removes members of the Supervisory Board Establishes the compensation of members of the
- Supervisory Board

 Establishes the responsibilities of members of the Supervisory Board Approves the distribution of profits
- Appoints the external auditors

The meeting is convened at least once a year to approve

Supervisory Board (SB)

- CHAIRMAN: Pippo Ranci
- TERM: 3 years (the present board was appointed on
- NUMBER OF MEMBERS: 19
- MAIN ROLES: to appoint the MB, determine the compensation of the members of the MB, approve the annual financial statements, authorise the decisions of the MB as regards the Group's strategic guidelines and

Management Board (MB)

- CHAIRMAN: Graziano Tarantini
- TERM: 3 years (the present board was appointed on June
- NUMERO COMPONENTI: 8
- PRINCIPALI RUOLI: to manage the Group, appoint general managers (who may also be members of the MB), appoint and remove the manager in charge of preparing the Company's accounting documents

Compensation Committee

The Committee has the duty of assisting the SB in:

- defining the guidelines for cultural and charitable initiatives and promoting the image of the
- Company and the Group; checking the impact of A2A's activities in the local areas in which it operates and drawing up proposals regarding the exercising of corporate social and environmental responsibility.

Territorial Committee

The Committee has the duty of

- assisting the SB in:
 defining the guidelines for cultural and charitable initiatives and promoting the image of the Company and the Group;
- checking the impact of A2A's activities in the local areas in which it operates and drawing up proposals regarding the exercising of corporate social and environmental responsibility.

Appointments

Committee

The Committee has the duty of assisting the SB in:

 performing the activities specified in the Company's bylaws in connection with appointments made to the managementand control bodies.

Corporate and Market Area General Management

Has the responsibility for:

- as the responsibility for: directly manging planning processes and activities, investment control and assessment, regulatory policies and relations with sector authorities, finance, treasury and risk management, investor relations, administra-tion, accounting, financial statements and tax matters, procurement, personnel, organisation and quality, general services, legal services, acquisitions, mergers and disposals, information systems;
- managing in addition fuel procurement, planning, scheduling and plant managing in addition their procurement, pranning, screeding, and paint despatch, portfolio optimisation and trading on domestic, international and environment markets, marketing, commercial planning and sales of all the energy vectors, customer relations and commercial channel management, billing and commercial back-office.

Technical-Operations Area General Management

Has the responsibility for

- developing and managing the businesses of electricity and gas distribution, environmental services, cogeneration, district heating, heat management and the integrated water cycle, rationalising activities and seeking improvements; presiding over the activities of engineering, project management and the construction of plant and infrastructure;
- establishing Group safety and environment policies, ensuring they are implemented and complied with;
- ensuring that the Group develops and implements skills in key technologies for the sector.

The Supervisory Board and the Management Board were renewed in 2012, and as a result so were the various Committees. In addition, the Committee for the Local Area, previously known as the Donations Committee, has been set up, which has added to its responsibilities the drawing up of proposals regarding the exercising by the Group of its social and environmental responsibilities. The following two tables provide details of the composition of these corporate governance bodies.

16 COMPOSITION OF THE SUPERVISORY BOARD with an indication of membership of other corporate governance bo

Position	Member	Indipendent (1)	Internal Control Commitee	Appointments Committee	Compensation Committee	Territorial Commit
Chairman	Pippo Ranci Ortigosa	х	х	х		
Deputy chairman	Fausto Di Mezza		Х	Х		
Director	Marco Baga	х				х
Director	Alessandro Berdini	Х			х	
Director	Marina Brogi	х			х	
Director	Michaela Castelli	х		Х		
Director	Mario Cocchi	Х			х	
Director	Marco Manzoli	х	Х			
Director	Enrico Giorgio Mattinzoli	х				х
Director	Marco Miccinesi	х				Х
Director	Andrea Mina	х		Х		
Director	Stefano Pareglio	х				х
Director	Massimo Perona	Х			х	
Director	Norberto Rosini	х	Х			
Director	Angelo Teodoro Zanotti	Х				Х

⁽¹⁾ Within the meaning of the Borsa Italiana Corporate Governance Code

17 COMPOSITION OF THE MANAGEMENT BOARD

Position	Member	Executive	Non-esecutive	Indipendent ⁽¹⁾
Chairman	Graziano Tarantini		х	
Deputy chairman	Francesco Silva		Х	х
Director	Giambattista Brivio		Х	х
Director	Stefano Cao		х	Х
Director	Bruno Caparini		Х	х
Director	Maria Elena Cappello		Х	х
Director	Renato Ravanelli	Х		
Director	Paolo Rossetti	х		

⁽¹⁾ Within the meaning of the Borsa Italiana Corporate Governance Code



The Corporate Governance Code can be found on the Borsa Italiana website

www.borsaitaliana.it



The Corporate Governance Report can be found on the Group's website in the Governance section

www.a2a.eu

The compensation of members of the Supervisory Board is approved by the Shareholders' Meeting, while that of members of the Management Board and members of the Supervisory Board having specific responsibilities, functions or powers is approved by the Supervisory Board.

On the proposal of the Compensation Committee, the newly-appointed Supervisory Board approved the compensation of the board itself: total compensation was reduced by 30% overall and the compensation of the Chairman and Deputy Chairman was reduced by over 50%.

The Supervisory Board additionally approved the compensation of the Management Board, with the total annual figure being reduced by 34% over 2011.

All compensation is fixed, except that of the Chairman of the Management Board which also has a variable portion that is mainly linked to long-term objectives measured on the basis of the business plan.



Further information on the compensation received by the members of the Supervisory Board, the Management Board and the General Managers in the year ended December 31, 2012 may be found in the 2013 Remuneration Report published on the website

www.a2a.eu

18 AGES OF MEMBERS OF THE MANAGEMENT AND SUPERVISORY BOARD AT DECEMBER 31, 2012

Age band	Management Board	Supervisory Board
Under 30	0	0
From 31 to 40	0	0
From 41 to 50	2	6
Over 50	6	9

The Management Board's responsibilities include the review and preventive approval of the transactions of a company in which an empowered director of the Management Board or a General Manager of A2A is the holder of an interest on his own behalf or on the behalf of third parties, in accordance with the provisions of the Corporate Governance Code. The same provisions hold for subsidiaries.

The Management Board has conducted a **self-assessment** of the composition and functioning of the board, taking into account factors such as:

- the professional characteristics of its members, their experience, including managerial experience, and their specific sector characteristics;
- their seniority in the position.

The Management Board additionally checked that the board had been working efficiently as a whole throughout 2012, including whether suitable information had been provided before and during board meetings and whether there had been a profitable board discussion on the matters included on the agenda from time to time.

Supervisory Body

On February 5, 2013, the Management Body approved the appointment of a new collegiate Supervisory Body, consisting of the head of Internal Audit and two external professionals. The Supervisory Body has autonomous initiative and control powers and the independent exercising of those powers is assured by the fact that the members of the body are not subject to any restrictions of a hierarchical nature (as the body reports directly to top operational management represented by the Management Board) and by the presence of one external member as Chairman.

The duties of the Supervisory Body are to ensure by supervision that the Organisational, Management and Control Model established pursuant to Legislative Decree no. 231/01 (see also the following paragraph) is working, is effective and is being complied with; to be responsible for updating this model; and to perform all the other activities and functions envisaged by the model, including reporting on a periodic basis to the corporate governance bodies on its implementation.

In all Group companies which today have an Organisational, Management and Control Model pursuant to Legislative Decree no. 231/o1, a Supervisory Body has been set up which performs its work in conjunction with the parent company's Supervisory Body.

Internal Audit

The Company's Internal Audit function assists staff involved in control, monitoring and supervision processes in the Company and the Group in performing their duties regarding the Internal Control System and Risk Management, with specific reference to checking internal procedures and to activities carried out as a preliminary to an assessment of the internal control system and the Group's business risks. During 2012 the Head of the Internal Audit Function, who has the responsibility of assessing whether the internal control system continues to be adequate, fully operative and in working order, continued his activities by defining a specific audit plan. Internal Audit also assists the Supervisory Body by carrying out specific detailed procedures and tests designed to check whether the Organisational, Management and Control Model established pursuant to Legislative Decree no. 231/01 as amended is working properly and effective, and whether the model is being complied with.

Risk management

The A2A Group has a **risk assessment and reporting** process that is based on the Enterprise Risk Management methodology of the Committee of Sponsoring Organizations of the Treadway Commission (CoSO report), in order to make business risk management an integral and systemic part of management processes.

The Group's methodology is based on a risk model which takes account of the Group's characteristics, its multi-business vocation and the sector to which it belongs. A self-assessment process of the risks is carried out periodically on the basis of the model, which through the direct involvement of management and all the business structures enables the more important risks to be determined together with the relative controls and mitigation plans.

The A2A risk model identifies the **environmental risk** as the risk profile typical of its business and, as such, subject to management's periodic assessment, specific controls and particular attention. The environmental management process carried out by A2A is in itself an activity preventing the environmental, economic and financial risks associated with failure to comply with laws and regulations or the failure of local communities to provide their consent, claims for compensation and the impairment of assets. To cover any residual risk A2A has taken out insurance cover against any damage that may arise from accidental and gradual pollution

linked to the ownership and/or management of its plants. Cover also extends to damage relating to protected natural species and habitats and the cost of restoring the area inside and outside the factories.

The following table provides a summary of the main types of risk subject to the assessment and reporting process.

19 Context risks

Type of risk	Description
Legislative changes	Changes in legislation and the measures introduced by national regulatory bodies or by local administrations can modify the competitive context in which the Group works, leading to additional costs, opposing the Group's development strategies, causing an increase in competitive pressure and/or considerably affecting the Group's ability to carry out its activities in an efficient manner.
Macroeconomic situation	The Group's activities are sensitive to economic cycles and the general economic conditions of the countries in which it operates. A slowdown in the economy could, for example, lead to a fall in consumption or industrial production by customers, having an adverse effect on the demand for electricity and the other services provided by the Group.

20 Process risks

Type of risk	Description
Business interruption	The main operating risk to which A2A is exposed relates to the ownership and management of electricity power plants, cogeneration plants and distribution networks. These plants are naturally exposed to the risk that they may cause significant damage to the assets making them up and, in more serious cases, impair production capacity.
Production efficiency	An inefficient process leads to the waste of resources which, with specific reference to a non-optimal use of the available production capacity, translates into a higher proportion of operating expenses.
Customer satisfaction	Business processes may not meet customer expectations due to a poor focus on the consumer, with the possible consequences in terms of the loss of market share and a decrease in revenues.
Health and safety	Any harm to the health and safety of workers could expose the Group to significant costs for compensation and the possibility of ending up in litigation, as well as having negative repercussions on the Group's image with the public and investors.
Information technology infrastructure	The computer infrastructure supporting the business organisation could turn out to be inadequate for supporting activities in an effective manner, with direct consequences on the Group's operations.
Internal skills	Training and growth processes must ensure that resources are aligned to business strategies so that in pursuing its development policies the Group can place reliance on internal staff having suitable skills.
Environmental risk	In performing its activities the Group could cause damage to the surrounding environment and therefore be exposed to penalties inflicted by the competent authorities or required to pay large sums of money to third parties.
Commodity risk, including currency risk	The volatility in the price of energy products (gas, electricity, fuel oil, coal, etc.) and in the exchange rates used in purchasing these products can lead to an increase in the cost of producing energy and the services provided by the Group, with the possible difficulty of transferring these costs onto selling prices to the customer.
Interest rate risk	The Group is exposed to interest rate fluctuations, which could lead to a change in the value of fixed rate financial assets and liabilities or a change in the cash flows associated with variable rate financial assets and liabilities.
Liquidity risk	The possibility of being unable to meet obligations, of being unable to dispose of assets or obtain adequate funding (funding liquidity risk) or of being incapable of easily terminating contracts or counterbalancing specific exposures without a significant drop in market prices due to insufficient market liquidity or possible market interruptions ("market liquidity risk").
Credit risk	The Group might incur unexpected losses following the default of a debtor. Credit risk management arises from the need to monitor customer solvency, with particular reference to cases when services are rendered in advance or extended payment terms are granted.
Default and covenant risk	This risk relates to the possibility that loan agreements or bond regulations may contain provisions which enable the counterparty to require the borrower to repay the amount lent immediately on the occurrence of specific events.

21 Strategic risks

Type of risk	Description
Environmental costs - Emission Trading Risk	The issue of environmental costs is characterised by its high level of complexity and transversality, and is concentrated in particular on market and financial aspects which could be the source of competitive advantages/disadvantages for the Group. The main risks regarding the Emission Trading Scheme (ETS) are as follows: - Regulatory Risk: at an international level, the legislation rooted in the Kyoto Protocol expired in 2012. On the other hand by way of Directive 2009/29/EC the European Union has established that the ETS will continue until 2020, envisaging a greater degree of centralization, coordination and harmonization of the rules of the various Member States; - Market Risk: the allowances for emitting CO2, valid for the ETS EUAs (European Unit Allowances) are listed on organised stock exchanges (e.g. ECX, Bluenext), and as in the case of other commodities their prices can vary from one day to the next; - Delivery or Counterparty Risk: meaning any failure to physically delivery previously purchased CO2 allowances due to problems of a technical nature (e.g. the failure of the computer registers of members states or the EU to work properly) or the default of the counterparty.
Assessment and monitoring of the implementation of investments	The set of risks falling under this category ranges from investments of a "technical" nature (e.g. new production sites), which call for large amounts of capital, to investments in strategic shareholdings. Particular focus in this category is given to the risks, here very closely connected with the Group's activities, connected with an inefficient realisation of the investments approved and an inadequate monitoring of the progress being made, which can impair expected returns.

For the A2A Group's activities a specific type of risk is connected with **climate change**. Changes in rainfall can for example have repercussions on the ability of hydroelectric plants to produce energy. In a similar way changes in temperature can on the one hand affect the operations of thermoelectric plants and the ability to use gas transportation and storage infrastructures, and on the other affect the demand for energy by customers as well as the Group's other products and services. To all of this should be added effects of a physical nature to which the plants are subjected due to temperature changes. These repercussions, which can cause positive or negative effects on the Group's results depending on how they manifest themselves, are taken into due account at the budgeting stage by adopting reference models that are based on historical series of data. As far as the hydroelectric plants are concerned, appropriate policies for managing the reservoirs are set up to mitigate the effects connected with rainfall. Suitable cooling systems on the thermoelectric plants enable the effects on production efficiency arising from temperature changes to be reduced.

To avoid mistakes being made in hedging exposures on the **emission trading** market, which could lead to costs for the Group, the Environmental Markets internal function follows a specific procedure for managing CO2 allowances known as the "Deal Life Cycle", which governs the means and timing of transmitting scenario data, with respect to prices and the need for budgeted and actual hedging. This procedure is designed to manage the recording, monitoring and testing of individual contracts traded on regulated and non-regulated markets, and ensures that there is transparency in managing hedges and optimising performance.

2.5.2 Corporate governance tools

A2A manages its internal and external corporate governance by using the following specific tools.

Code of Ethics

Following a resolution of the Management Board A2A has adopted a Code of Ethics, which establishes the Group's mission and values, together with the principles and rules of conduct on which the whole of the Group's activities are based. The Code is an integral part of the Organisational, Management and Control model adopted by the A2A Group pursuant to Legislative Decree no. 231/01.



The Code of Ethics may be found on the Group's website in the

www.aza.eu

A2A's VALUES(from the Group's Charter of Values)

- Excellence in results
- Responsibility
- Team spirit
- Innovation
- Sustainability

Organisational, Management and Control Model

By way of a resolution adopted on December 10, 2012, the Management Board of A2A S.p.A. updated the parent company's Organisational, Management and Control model (based on Legislative Decree no. 231/01 which determines the "responsibility of enterprises for administrative offences of a criminal nature") in order to adapt it to the numerous organisational and corporate changes that had taken place since the previous revision and to the new legislation that had been gradually introduced. All the areas of the A2A. S.p.A. model have been updated and additions have been made by including further Special Sections corresponding to the new types of offence involved, including **Environmental Offences** (article 25-undecies of the Decree).

The 19 Group companies that have adopted the Organisational, Management and Control model pursuant to Legislative Decree no. 231/01(representing 99% of employees) are systematically monitored for risks connected with corruption. There were no episodes of corruption in 2012.

An e-learning training course on Legislative Decree no. 231/01 and the Organisational, Management and Control Model was completed in 2012 for all the employees of A2A S.p.A. who had not attended the classroom courses given in 2010. A guide containing information on the subjects together with the rules and regulations was sent to the employees not involved in classroom training or in e-learning training (for example employees not having a computer).

Following the adoption/revision of the Legislative Decree no. 231/01 model by certain Group companies, specific classroom training sessions were held for the employees of A2A Servizi alla Distribuzione, Amsa, A2A Calore & Servizi and A2A Ciclo Idrico, at which 303 people took part.



The Model per Legislative Decree no. 231/01 may be found on the Group's website in the Governance section

www.a2a.eu

QES management systems and certifications

All leading Group companies have had their Quality, Environment and Safety processes certified.

The population of companies with OHSAS 18001 certification was extended to include A2A Servizi alla Distribuzione in 2012, while Partenope Ambiente was fully certified during the year for all of its three divisions.

By the end of 2012 the following had been certified:

- ISO 9001: 17 companies representing 97% of the Group's employees
- ISO 14001: 15 companies representing 93% of the Group's employees
- OHSAS 18001: 13 companies representing 91% of the Group's employees.

In addition, 12 of the Group's assets are EMAS registered, while another 2 are waiting for registration which is expected to be obtained in 2013.

Compliance of the Quality, Environment and Safety systems is checked by means of the following:

- **first stage audits**, performed internally, whose objective is to highlight the matters to be perfected and to direct the planning of improvement activities; 156 internal audits were performed in 2012, with a total of 312 points for improvement noted;
- **second stage audits**, performed by specific control bodies such as for example the Electricity and Gas Authority;
- **third stage audits**, conducted by outside independent certification bodies for the purpose of issuing or renewing certifications.

During the year coordination committees were set up for the QES management systems, with meetings also attended by the heads of the units/functions having management systems, with the aim of seeking constant improvement in meeting the needs of customers and suppliers, increases in the efficiency of corporate activities and improvements in the performance of activities having repercussions on the environment and worker health and safety.

In 2012 A2A Servizi alla Distribuzione and A2A Ciclo Idrico received the Certiquality Certificate of Excellence awarded for 2011 activities. The Certificate of Excellence is the recognition given by Certiquality to companies which have decided to pursue constant improvement in their activities and increase their competitiveness by effectively integrating business management systems for quality, the environment and safety.



2.5.3 Regulatory framework

The companies of the A2A Group work in highly regulated sectors where the legislative and regulatory situation is in constant evolution, especially as far as electricity and natural gas are concerned but also in connection with the management of the integrated water cycle and environmental services.

The Group adopts rigorous policies to **monitor and manage legislative risk** which among other things envisage collaborative dialogue with the institutions and government and sector regulatory bodies; active participation in trade associations and working groups set up at these bodies; and an examination of changes in legislation and provisions issued by sector authorities.

In addition, constant dialogue is held with the business units affected by changes in legislation, in order that any potential effects may be fully assessed.

Competition rules

In 2012, A2A again met the commitments presented to and accepted by the **anti-trust regulator** (the "AGCM") concerning **two proceedings** on the protection of competition in which certain Group companies were involved.

Regarding the first proceeding, in September 2010 the AGCM accepted the commitments made by A2A and its distribution companies as part of an open enquiry into possible conduct abusing a dominant position, consisting of hindering switching (the changing of an electricity or gas supplier) and providing withdrawal data in an irregular manner.

The second proceeding on the other hand involved A2A Trading in its capacity as a toller for Edipower (together with Edison Trading, Alpiq Energia Italia and Iren Mercato). Following a report by the Electricity and Gas Authority on an unusual trend in electricity prices on the wholesale electricity market in Sicily, the AGCM initiated an enquiry into Edipower and the tollers (at the same time as it initiated a similar enquiry into ENEL), alleging a possible coordination in the tollers' offering policies aimed at affecting the quantity and hence the price of electricity in Sicily. In December 2010, the AGCM accepted the commitments made by Edipower and the tollers, including A2A Trading.

Compliance with laws and regulations

Following an appeal filed with the Lombardy regional administrative court, Ecolombardia 4 S.p.A. obtained the cancellation of Resolution no. 393/2012/E/efr and all the decisions connected with this provision; this matter regarded the administrative consequences resulting from an inspection carried out by the GSE and the Authority on the waste-fuelled electricity generation plant at Filago (BG), for which the Settlement Fund for the Electricity Sector had requested the producer to return the amounts considered unduly received in the period when the CIP 6 convention was in force.

Safeguarding privacy

A2A guarantees the protection of the personal data of all its stakeholders in compliance with current law and the principles of transparency, lawfulness and propriety.

Data are processed in a manner pertinent to the declared uses and are not used for any purposes other than those explicitly stated in the information provided to the persons concerned. In compliance with legal requirements, the Group has adopted specific organisational provisions and security measures aimed at preventing the risk that the data may be lost or destroyed, also accidentally, that unauthorised access may be obtained to the data or that processing may be carried out that is not permitted or does not comply with the purposes for collecting the data. To this end the Group has a disaster recovery system which ensures that the data recorded in the customer data bank can be saved and recovered.

No complaints were received from customers in 2012 alleging a violation of privacy or the loss of data.

2.6 Stakeholder chart and engagement initiatives

The various categories of stakeholder of the A2A Group are characterised by their close interconnection. It is sufficient to remember that the parent company's main shareholders are the very municipalities in which the Group operates, that the municipalities (and hence the institutions) are also customers, that residents (and hence society as a whole) are in turn very often customers and that there are many employees and suppliers among the Group's customers. We therefore have a "chart" in which a number of "threads" linking the various stakeholders to the Group and vice versa intersect with each other in a virtuous entwining of relations and interests.



Listening to and understanding the needs of stakeholders to ensure positive, stable and long-lasting relations is one of the A2A Group's main objectives. A questionnaire was again sent out in 2012 to all of the Group's companies/functions on relations with and listening to stakeholders, with the request for them to list their interlocutors and describe the main activities that are carried out to get them involved.

A2A develops specific forms of listening by category of stakeholder and by subject matter. There are various means by which stakeholders are engaged, ranging from one-to-one meetings to focus groups or meetings, and from sending out questionnaires to setting up specific committees or workgroups.

The main listening areas developed in 2012 are summarised in the following table and in the specific paragraphs relating to the various stakeholders.

STAKEHOLDER ENGAGEMENT 2012: MAIN INITIATIVES

INITIATIVE: first survey to understand the opinions and expectations of employees on internal communications and the services which A2A could provide to improve the quality of working life and social life.

SURVEY PERIOD: July 2012

AREA SURVEYED: all the Group's offices and plants

STAKEHOLDERS INVOLVED: all employees (9,039 people, participation rate 40.4%)

Who A2A Group

Stakeholder concerned

Employees

Tool deployed

On-line or hard copy questionnaire

Subject

Internal communication and reconciliation between working life and social life

CONCLUSIONS: the primary sources of information about the Group are colleagues, direct supervisors and the intranet (which is considered very useful by 91% of respondents). Seventy five per cent of respondents read the in-house magazine "Inadueà" and 66% of readers believe it is very or quiet useful.

More than 50% of people said they are very or quite well informed about the internal organisation, the main events and the services provided to employees. This rises to 67% in the case of information about health and safety legislation.

Less well known are the events regarding the A2A Group and its projects, objectives and economic results, but people are interested in receiving information on the projects and future objectives of their own company or the whole of the A2A Group.

Nurseries is the service most requested; those who already use this service in Brescia gave it very favourable marks (8.6).

Sixty five per cent of respondents live within twenty kilometres of their workplace; 60% take less than half an hour to reach work from home. The car is the most used means (79%) but only 13% of people share it with others; people who live a long way from work prefer the interurban bus or train. There was a significant request for subsidies for public transport (a mark of 7.85 which rises to 8.19 for people living in Milan); car sharing did not emerge as a preponderant need.

Employees are asking for company canteens in the areas where these do not currently exist.

The A2A Group is seen as: big (91.5%), attentive to the environment (87.6%), reliable (83.7%), sound (81.1%) and attentive to quality (73.6%).

INITIATIVE: customer satisfaction survey into the service managed by Amsa in Milan and in other municipalities in order to test and monitor the level of the service, identify the most important aspects for satisfying residents, identify any priorities for taking action

SURVEY PERIOD: April 20 - May 5, 2012

Who Amsa

AREA SURVEYED: Milan, Basiglio, Bresso, Novate Milanese, Pero, Segrate, Settimo Milanese and Trezzano sul Naviglio

STAKEHOLDERS INVOLVED: 1,000 interviews conducted with Milan

residents (250 for each of Amsa's operating units: Olgettina, Zama, Primaticcio, Silla); 500 interviews conducted with residents of the other

municipalities (allocated in proportion to the resident population); 200

Stakeholder concerned Citizens, communities

Tool deployed Telephone interviews

interviews conducted with commercial operators in Milan CONCLUSIONS: 72% of the Milan residents interviewed gave a mark of

over 7 for their overall satisfaction with the service (on a scale of 1 to 10), expressing their specific appreciation of the efficiency of the service, the thoroughness and regularity of the street and pavement cleaning and the regularity and punctuality of urban waste collection.

The main critical points were as follows: the service for cleaning green areas, washing pavements in highly frequented areas, emptying waste bins and street sweeping (large-scale, fine and global).

Seventy two per cent of Milan commercial operators are satisfied (7 or more marks) and 82% of the residents of neighbouring municipalities are also satisfied.

Subject

Customer Satisfaction

A₂A Group

Stakeholder concerned Citizens, communities

Tool deployed

Telephone interviews

Subject

To measure the extent to which the A2A brand and that of the companies making up the Group is known

INITIATIVE: telephone survey designed to measure the brand awareness of A2A and the companies making up the Group and to identify the brand imagery which characterises the Group.

SURVEY PERIOD: May 2012

AREA SURVEYED: Lombardy and the rest of Italy

STAKEHOLDERS INVOLVED:

- In Lombardy: 800 resident families, 100 condominium administrators, 100 small offices, 50 opinion leaders
- In Italy: 800 resident families, 50 of A2A's business customers, 50 of A2A's potential business customers.

CONCLUSIONS: A2A's brand awareness is very low in Italy, amounting to 9%, and sits at 9th place among the utilities. This figure improves considerably in Lombardy, where it reaches 43% and sits at 5th place among the utilities; in particular, A2A comes immediately to mind for opinion leaders; the bill and word of mouth were the most quoted means of getting to know the name.

Compared to many of its competitors, A2A enjoys a brand opinion that is

better both in Lombardy (between 6.9 and 7.2) and in Italy (7.2). The company is considered reliable, reconciling efficiency and closeness to the local area. Apart from the supply of electricity and gas the Group's activities are not very well known, nor are the companies making up the Group.

04

INITIATIVE: quali-quantitative market survey aimed at finding out the approach of the residents of Milan to differentiated collection and the introduction of the collection of wet waste, at identifying needs and expectations and at obtaining ideas for optimising communication and support actions.

Who

Amsa

Stakeholder concerned

Citizens, communities

Tool deployed

Telephone interviews + focus groups

Subject

Survey into differentiated collection and wet waste collection in Milan

SURVEY PERIOD: July 2012

AREA SURVEYED: Milan

STAKEHOLDERS INVOLVED: 800 residents using telephone interviews + 4 focus groups each with approximately 8 members

CONCLUSIONS: it emerged from the survey that the collection of wet waste lies on fertile ground in terms of perception, habits and behaviour. It worries people in terms of how it can be managed but is a step expected by Milan households: over half are in favour of its introduction. It should be anticipated by preliminary communication (with a clear guide on the approach to be taken and the reasons behind the collection), followed by further announcements on the results, designed to encourage and promote collection. People expect to see careful and efficient organisation, frequent pick-ups, a support kit and a system of assistance.

Differentiated collection is by now standardised and perceived as precise and regular, but expectations also exist both in terms of continuous information on the means of collection and the use of the waste recovered.

05

INITIATIVE: the initiation of career development paths (development centers) where the observation and appraisal of skills is integrated with the training aspect

SURVEY PERIOD: calendar 2012

AREA SURVEYED: the whole of the Group

STAKEHOLDERS INVOLVED: 36 young professional graduates

Stakeholder concerned

Employees

Who
A2A Group

Tool deployed

Group and one-to-one meetings

Subject

Professional aspirations and motivation

CONCLUSIONS: this was an occasion for the participants to develop increased self-awareness and reflect on what drives them and their growth aspirations, pointing out these matters to the Group.

At the end of the initiative, each participant received structured feedback (in terms of strengths and weaknesses).

3.0 Economic responsibility





22 Trends in key economic indicators for the past three years

Economic data	2010	2011*	2012
Revenues (in millions of euro)	6,041	6,130	6,480
Gross operating income (in millions of euro)	1,040	924	1,068
Net operating income (millions of euro)	498	298	501
Net income attributable to the Group (in millions of euro)	308	-423	260
Net earnings per share (euro)	0.098	-0.134	0.083
Unit dividend** (euro)	0.096	0.013	0.026

^{*}following the sale of the Coriance group in 2012, the figures have been restated for consistency with those published in the consolidated annual report for 2012, to which reference should be made for further information

Value added, which represents the Group's ability to create wealth for its stakeholders, amounted to 1,238 million euro in 2012 and was distributed as shown below.

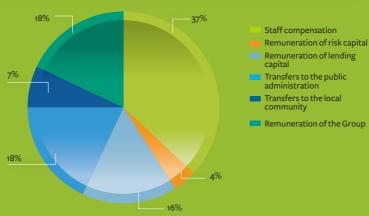
HIGHLIGHTS **2012**

In 2012, A2A's consolidated revenues increased by 5.7% over 2011

Total capital expenditure during the year amounted to 353 million euro

"Lettera2 azionisti", the Group's newsletter for small shareholders and investors, started up in

23 Distribution of net global value added *



*Further details may be found on page 47

All the numbers are in the attachment from page 55 to page 56

information
**dividend proposed by the Management Board

3.1 The Group's 2012 results

The consolidation scope for the year ended December 31, 2012 differed from that of the previous year due to the sale of the shareholdings in A2A Coriance S.a.s, Transalpina di Energia S.r.l., e-Utile S.p.A. and Metroweb S.p.A., and due to the line-by-line consolidation of Edipower S.p.A. from June 1, 2012.

The year 2012 saw the A2A Group earn revenues of 6,480 million euro and achieve **Gross Operating Income** of 1,068 million euro, an increase of 144 million euro (+15.6%) over the previous year. This result is even more significant if the continuing and profound difficulties characterising the energy sector in which the Group operates are considered, as well as the effects resulting from recent changes (or advanced proposals for changes) to the legislative and regulatory framework. These changes (some of which are retrospective) had an effect of approximately 54 million euro on the performance of the Environment and Networks Sectors following the adjustments prudently made to their revenues while waiting for the outcome of the administrative litigation initiated by the Group companies involved. The rise in industrial margin is attributable to the **Energy Sector**, where Gross Operating Income increased by 205 million euro (+61%), mainly as the result of acquiring control of Edipower, a company which entered the A2A's consolidation scope in June 2012. The subsidiary EPCG also contributed to the Sector's profit with an industrial result of 17.5 million euro, becoming positive again and higher than that of the previous year.

Net Operating Income rose by 203 million euro to 501 million euro (298 million euro in the year ended December 31, 2011), while after deducting the result attributable to minority interests **Net income attributable to the Group** totalled 260 million euro (a loss of 423 million euro in the year ended December 31, 2011). Consolidated **Capital employed** at December 31, 2012 amounted to 8,069 million euro and was funded by Net equity as to 3,697 million euro and net debt as to 4,372 million euro.

3.2 Formation of Value Added

Value added represents the wealth produced by the Group in the year and is the difference between revenues on the one hand and the intermediate costs and accessory and extraordinary items on the other. This parameter measures the economic performance of operations and the Group's ability to create value for its stakeholders.

The model used to calculate Value Added and its distribution is based on that adopted by the Social Accounts Group (Gruppo per il Bilancio Sociale - GBS). In order to improve the comprehensibility and clarity used in determining Value Added and its distribution, a number of changes and additions were made in 2012 to the schedule showing the way it is formed and distributed. Prior year figures have been restated for consistency and comparability.

The A2A Group generated net global value added of 1,238 million euro in 2012.

24 Schedule showing the calculation of Net Global Value Added

	(in millions of euro)	2010	2011*	2012
+ A)	Production value	6,041	6,130	6,480
	Revenues from the sale of goods and services (- revenue adjustments)	5,911	6,021	6,256
	Change in work in progress, semi-finished goods and finished goods	0	0	0
	Change in contract work in progress	12	8	25
	Other operating income	118	101	199
	Public entity grants	0	0	0
- B)	Intermediate production costs	4,530	4,850	4,844
	Consumption of raw materials and consumables	133	124	145
	Consumption of energy and fuel	3,239	3,470	3,634
	Services	789	795	801
	Other operating expenses	192	167	103
	Accrual to bad debt provision - current receivables	65	73	32
	Accruals to risk provisions	41	32	44
	Other write-downs of fixed assets	9	118	2
	Miscellaneous operating expenses	94	96	104
	Own work capitalised	-32	-25	-21
	GROSS ORDINARY GLOBAL VALUE ADDED	1,511	1,280	1,636
-C)	Financial balance	9	-144	17
	Financial income	18	18	35
	Financial expense which does not represent the remuneration of lending capital	-37	-30	-31
	Interest and expense from accounting for shareholdings in associates	28	-132	13
-D)	Accessory and extraordinary items	2	-762	74
	+/- Accessory items, net	2	-758	77
	+/- Extraordinary items, net	0	-4	-3
	GROSS GLOBAL VALUE ADDED	1,522	374	1,727
	- Operating depreciation and amortisation	427	403	489
	NET GLOBAL VALUE ADDED	1,095	-29	1,238

 $^{{}^* \}text{The figures for 2011 have been restated to make them consistent with those published in the consolidated annual report.}$

3.3 Distribution of Net Global Value Added

The following table sets out the distribution of Net Global Value Added and provides an immediate view of the economic effect produced by the A2A Group on its main stakeholders, meaning those who are involved in its activities for various reasons.

25 Schedule showing the distribution of Net Global Value Adeed

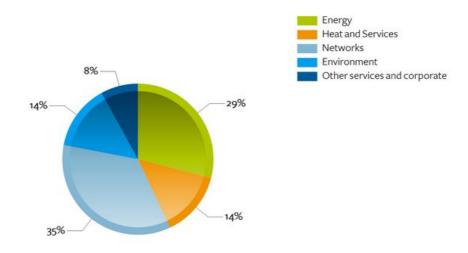
(in millions of euro)	2010	2011	2012
STAFF COMPENSATION	430	413	457
Wages and salaries	368	359	399
TFR	23	22	24
Other costs	39	32	34
REMUNERATION OF RISK CAPITAL	105	-198	51
Distributed profits	217	298	40
Net income attributable to minority interests	-112	-496	11
REMUNERATION OF LENDING CAPITAL	113	114	197
TRANSFERS TO THE PUBLIC ADMINISTRATION	280	291	227
Direct State taxes	154	154	79
Other State taxes and duties	2	3	3
Social charges	124	134	145
TRANSFERS TO THE LOCAL COMMUNITY	76	72	86
Direct local authority taxes	46	44	45
Local taxes and duties	20	20	35
Sponsorships	4	2	2
Contributions to the AEM and ASM Foundations, aid, donations, charities	6	6	4
REMUNERATION OF THE GROUP	91	-721	220
Reserves	91	-721	220
NET GLOBAL VALUE	1,095	-29	1,238

As shown in the above table, 37% of the Net Global Value Added distributed by A2A consists of staff compensation; 4% consists of the remuneration of risk capital; 16% consists of the remuneration of lending capital; 18% consists of transfers to the public administration; 7% consists of transfers to the local community; and 18% consists of the remuneration of the Group.

3.4 Capital expenditure

Capital expenditure totalling 353 million euro was made in the A2A Group's various sectors in 2012.

26 Capital expenditure by sector



In the **Energy Sector** capital expenditure totalled 103 million euro, of which 40 million euro attributable to Edipower S.p.A.. Investments mainly regarded extraordinary maintenance at the thermoelectric plants at Cassano d'Adda, Gissi and Monfalcone. Extraordinary maintenance was also carried out at the hydroelectric plants at Timpagrande, Orichella and Satriano and in the Valtellina. For Edipower S.p.A. investments relate mainly to extraordinary maintenance on the hydroelectric plants at Udine and Tusciano and on the thermoelectric plants at Turbigo and Sermide. The EPCG Group made investments of 7 million euro in the electricity generation sector during the year relating to the thermoelectric plant at Pljevlja and the hydroelectric plants at Perucica and Piva.

In the **Heat and Services Sector** capital expenditure for the year amounted to 49 million euro and related to extraordinary maintenance and development work on district heating networks and cogeneration plants, mainly in the areas of Milan and Brescia.

In the **Network Sector** capital expenditure in the Milan and Brescia areas for the year amounted to 99 million euro and regarded:

- in the electricity distribution segment, development and maintenance work on plants, and in particular the connection of new users, maintenance on secondary cabins, the extension and refurbishment of the medium and low voltage network and the maintenance and upgrading of primary plants;
- in the gas distribution segment, development and maintenance work on plants relating to the connection of new users and the replacement of medium and low pressure piping and gas mete
- in the integrated water cycle, work carried out on the water transportation and distribution network and the sewage networks.

The EPCG Group made investments of 24 million euro which regarded development and maintenance work carried out on the electricity distribution network and the replacement of meters.

In the **Environment Sector** capital expenditure for the year amounted to 48 million euro and related mainly to collection vehicles and containers and maintenance and development work on treatment plants and landfills and on waste to energy plants.

In the **Other Services and Corporate Sector** capital expenditure for the year amounted to 30 million euro and mainly related to investments in information systems, telecommunication networks and buildings.

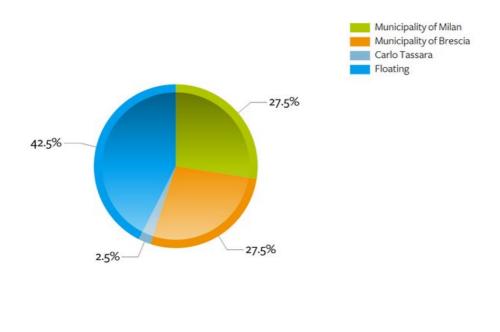
3.5 Shareholders and Investors

3.5.1 Composition of share capital

The parent company A2A S.p.A. is listed on the Milan stock exchange. The A2A share is traded on the electronic stock market, belongs to the FTSE-MIB segment and forms part of the "Public Utilities - Electricity" sector.

Under article 9 of the company's bylaws no single shareholder other than the Municipalities of Brescia and Milan may hold more than 5% of share capital. Shares held in excess of the 5% limit have no voting rights

27 A2A's shareholders (at December 31, 2012)*



The company's main shareholders are the municipal administrations of the cities of Brescia and Milan, which each hold 27.5% of share capital. These two local administrations are mutually bound by a shareholders' pact which commits them to holding an equal number of shares which taken together must always exceed 50% of the total. The third largest shareholder is Carlo Tassara S.p.A. with 2.5%. The remaining 42.5% of capital is floating. The latter percentage also includes the holdings of the Municipalities of Bergamo (1.7%) and Varese (0.7%) and treasury shares held by A2A S.p.A. (0.8% corresponding to 26,917,609 shares). A2A has over 114,000 shareholders who include both institutional investors and small (retail) investors.

Institutional investors hold approximately 15.2% of share capital (16.3% in 2011); 46.2% of floating capital in the hands of institutional investors is held by Italian investors, 15.7% by French investors and 13.7% by British investors. Included among the other important countries as investors are the United States (9.1%), Germany

(6.7%) and Switzerland (2.4% excluding the holding of Alpiq AG, which had an important shareholding until September 2012).

There are around 113,000 **retail investors**, who together hold 19.0% of share capital, an increase over the 17.6% of 2011. Of the retail investors 99.7% are resident in Italy and in particular 56.9% are resident in Lombardy, the region where historically A2A has its local roots. Investors resident in the provinces of Milan and Brescia hold 25.5% and 12.7% of the retail total respectively.

The figures have been prepared on the basis of the shareholders' register updated to the distribution of the dividend on June 21, 2012.

3.5.2 A2A in the stock exchange indices

28 Performance of the A2A share during 2012



29 A2A vs FTSE MIB



Fonte: Bloomberg

Among the factors which have affected the performance of the share are those arising from the adverse macroeconomic situation, such as:

- economic crisis
- country risk (reflected in changes in the BTP-Bund spread)
- an electricity sector under pressure
- the high volatility of the financial markets.

The company-specific factors on the other hand regard:

- debt level and downgrading of the rating
- quarterly industrial results higher than expectations
- completion of the restructuring of the shareholdings in Edison and Edipower
- success of the seven-year 750 million euro bond issue
- significant increase in volumes traded and the volatility of the share
- reduction by Alpiq of its shareholding.

3.5.3 A2A in the sustainability ratings

Investors are increasingly extending their attention and sensitivity to sustainability issues, especially over the past few years, leading them to assess a company not only on the basis of its income statement but also of its socially responsible conduct.

The presence of the A2A share in the "ethical" indices ensures that the Group is assessed on the basis of a series of criteria depending on its conduct in the various spheres of social interest, such as: respect for the environment, the way it manages human resources, business conduct, respect for human rights, corporate governance its involvement in the social life of the community.

The "ethics" rating therefore assumes the value of an independent appraisal on a company's social and environmental commitments and is an important recognition of what it does.

30 Sustainibility indices in which A2A is included (as of December 31, 2012)

Indices	ARating agency	Rating
CDLI (Carbon Disclosure Leadership Index)	CDP	Disclosure=88/100 Performance=B
ECPI Ethical index EMU	ECPI	
Axia Sustainable Index	Axia	A+++
Solactive Climate Change	Structured Solutions	
FTSE ECPI Italia SRI Benchmark index	FTSE ECPI	
	AEI Standard Ethics	EE- (outlook: Stabile)

3.5.4 Investing in A2A: sustainability as a valuation prospect

As a listed company A2A is regularly subject to the assessment of analysts who publish investment opinions circulated throughout the financial community. New wider-ranging needs and portfolios having the "sustainability" of the target company as an investment criterion, in accordance with an ESG (Environmental, Social and Governance) analysis perspective, typical of investors and ethics ratings agencies, are emerging in the investor universe. The aim of these operators is to identify a business model capable of creating value for all stakeholders by embracing development opportunities and ensuring business continuity in the long term through an effective management of risk. From this standpoint issues such as the following assume importance: commitment to renewable sources, energy and innovation efficiency, the protection of the environment and the improvement in the quality of life of the local communities.

Three dimensions are considered in this approach: economic, environmental and social, as SAM states: "Corporate Sustainability is a business approach to creating long-term shareholder value...; ...by embracing opportunities and managing risks...; ...deriving from economic, environmental and social developments...".

The reference stakeholders in this case are all interest bearers with respect to the company.

On the other hand the economic-financial dimension predominates in the traditional analysis approach and

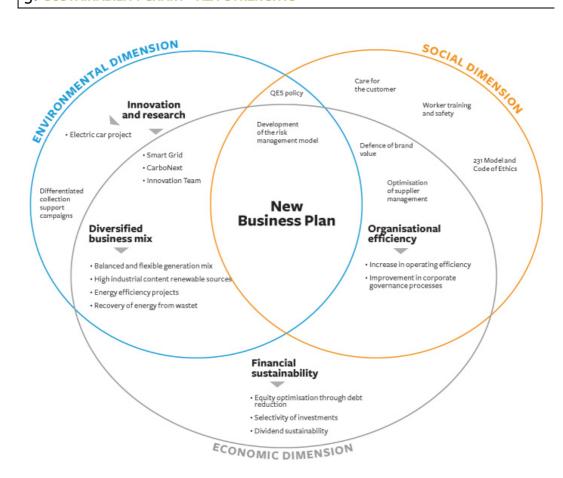
the reference stakeholder is the shareholder.

In this way analysis and investors can broaden their analysis spectrum, putting the various strategic decisions taken by A2A into context from the standpoint of long-term operating and financial sustainability, appreciating the upsides associated with the A2A share not fully valued in traditional analysis while at the same time reducing the downsides, benefiting the possibility of arriving at fairer valuations, less subject to volatility.

A company that is attentive to its reference stakeholders, including its shareholders, should not consider the three dimensions of sustainability on their own, but rather also as being highly correlated amongst themselves, as A2A's "Sustainability Chart" below shows.

The chart shows A2A's strengths on the basis of sustainability criteria, which are also landmarks for the company: confirming the fact that to all effects A2A may be considered a sustainable investment decision. The guidelines of the 2013-2015 Business Plan strengthen this conclusion even further.

31 SUSTAINABILITY CHART - A2A' STRENGHTS



In order to understand the effective creation of value, a reading from a sustainability standpoint should be carried out by subdividing the main strengths identified into the three spheres traditionally used to value companies:

- **Assets** In a complex and increasingly competitive sector such as energy, a diversified business mix characterised by the pre-eminent role of electricity and heat renewables reduces the risk profile and increases long-term sustainability at both an economic and environmental level (and in fact climate change constitutes one of the main global challenges of the present and the future).
- **Management** The optimisation of operating and financial management, the commitment to innovative development projects and an effective risk management model enable the available resources to be allocated in a better way, thus reducing costs and maximising stakeholder value.
- **Corporate Governance** Greater fluidity in the decisional processes of the corporate governance bodies contributes to a clear definition of the strategic lines of direction, thereby encouraging the effectiveness of the managerial approach in protecting shareholders' interests.

For each sphere there are therefore strengths linked to sustainability, with the resulting creation of value. The following table provides a schematic representation of the analysis carried out.

A2A's strengths from a sustainability standpoint	How A2A creates value for its stakeholders		
ASSET: Importance of renewable electricity and heat sources			
Diversified business mix at a national level	A2A's risk profile has considerably decreased due to the balance between regulated and market activities, the features of its plants and the size perspective		
Flexible, balanced and diversified generation mix, with importance given to hydroelectric generation	The hydroelectric plants act as a significant source of value for shareholders, who are also protected by recent legislative developments. A2A is additionally aiming to optimise its management of the generation portfolio even further		
Energy efficiency and district heating: an opportunity to be grasped in heat renewables	The positive environmental repercussions on society and the legislative guarantees supporting investment make A2A's increasing commitment in this sphere sustainable in the medium and long term		
Energy recovery from waste as a source of development	A2A is well positioned for exploiting market opportunities in an Italian context that is characterised by critical situations and a significant resort to the use of landfills		

A2A's strengths from a sustainability standpoint	How A2A creates value for its stakeholders		
MANAGEMENT: Financial sustainability, operating efficiency and innovation			
Financial sustainability and equity strengthening	The objectives set by A2A will enable the dividend policy to be more sustainable and will encourage a decrease in the share's volatility, contributing to the creation of long term value for shareholders		
Increase in operating efficiency	The operating income targets through 2015 will be ensured by means of the cost savings (of around 70 mln €) attributable to integration with Edipower, the reorganisation of the Environment Sector and optimisation in the Corporate area and other Sectors		
Development of a full circle risk management model (Enterprise Risk Management)	An effective control of risks contributes to a reduction in the volatility of results		
Care for the customer and the defence of brand value	A2A's consolidated customer base almost represents a "natural hedge", especially in the Energy Sector: the priorities are to keep a high service standard and a constant monitoring of customer profitability		
Constant commitment to research and innovation to the benefit of the end user and the environment	A2A is strengthening its commitment to making the distribution networks more efficient (smart grids) and innovative waste treatment processes (CarboNext)		
A2A's strengths from a sustainability standpoint	How A2A creates value for its stakeholders		
CORPORATE GOVERNANCE: Cost reduction and	d improvement in the working of the dual system		
Reduction of the compensation of the Boards	A2A's corporate governance bodies have also adopted an efficiency		

The result points to new sources of value and further potential for the A2A share. The highlighted factors assist in increasing A2A's appeal not only for ethical investors but also for the entire investor universe.

the new boards

logic, in line with the Group's strategic priorities

The approval of the new Business Plan represents the first

objective reached just a few months after the start of the terms of

The above shows the extent to which A2A is increasingly adopting a long term sustainability approach through strategic and managerial decisions aiming to satisfy the interests of all the Company's stakeholders, including shareholders: the approval of the 2013-2015 Business Plan last November is a significant step in this direction.

3.5.5 Relations with shareholders and investors

A2A is constantly committed to providing responses to the needs and specific requests of its financial stakeholders which are as accurate and exhaustive as possible. A variety of tools and communication channels are used to this end:

- institutional documents (financial statements, interim reports, corporate presentations);
- ad hoc documents (the Investor Annual Review, the Group profile);
- press releases;
- the "Lettera2azionisti" newsletter (online and in hard copy);
- meetings with analysts and investors.

Dual governance: improvement in decisional processes

Meetings with analysts and institutional investors can be carried out in a variety of ways depending on the complexity of the information which the company wants to communicate and the resulting disclosure needs of the financial community: roadshows in Italy and on the leading foreign financial markets, one-to-one meetings, group meetings, conference calls and presentations when particularly important events for the Group occur (business plans, extraordinary transactions, etc.).

In 2012 A2A presented its 2013-2015 Business Plan, and a roadshow was organised for the occasion which stopped off in Milan, London and Paris, with a series of meetings being held which saw senior Group management exchange views with a large number of Italian and international institutional investors, including the representatives of ethical funds.

Analyst coverage amounted in total to 15 for the year.

As the result of important strategic or managerial developments, A2A from time to time commissions perception studies as a means of monitoring the opinions of analysts and institutional investors about the Group and the most important issues connected with it.

NEW "LETTERA2AZIONISTI": THE FIGURES, FACTS AND PROJECTS OF THE LARGEST ITALIAN MULTIUTILITY

"Lettera2azionisti" is the Group's quarterly newsletter which is addressed to small shareholders and investors but also to all those people who want to know about A2A's initiatives and results. Publication of the newsletter, which is available online and also in hard copy, started up in 2012 at the Shareholders' Meeting of May 29. Three numbers were published during the year, the third of which in a "special" edition dedicated to a large extent to the A2A Group's 2013-2015 Business Plan which was presented in November.



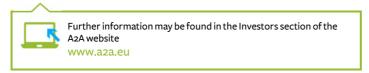
Internet communication is of considerable importance (through the Group's website and by email), as this enables the Group to provide complete and timely financial information in compliance with legal requirements and Consob guidelines.

The Investors section of the website www.a2a.eu contains information concerning the Group that is of importance to shareholders, thus helping them to obtain detailed knowledge about the Group and exercise their rights in an informed manner.

In 2012 the Investor section was further extended: a databook was prepared containing the Group's economic and financial data from 2008 onwards, on both an annual and quarterly basis. A press alert service is also available, which through registration on the website enables readers to receive the latest price sensitive press releases at the same time as they are posted on the site.

The website also contains a historical archive of corporate documents and price sensitive press releases, not only those of A2A but also those of AEM and ASM, regarding their final three years of activity (2005-2006-2007).

The internet is also an effective channel for communication with retail investors: the answers to frequently asked questions (FAQ) are also posted on A2A's website as a means of immediately and exhaustively satisfying the main requests received. The Investor Relations unit also provides precise replies to specific questions raised (especially by email) by retail investors.



Since the date of its foundation the Investor Relations unit has been a part of the Investor Relations Association which arranges regular training meetings designed to develop the skills of its members and promote the role of Investor Relations Officer among all the players of the financial market and management of listed companies.

INVESTOR RELATIONS GUIDELINES

The Investor Relations organisational unit responds directly to the General Manager of the Corporate and Market Area. The main responsibility of the Investor Relations (IR) unit consists in encouraging and **promoting a proper understanding and assessment of the value of A2A's share** by the financial community by means of proactive, transparent, timely, constant, accurate and non-discriminatory communications.

To this end the IR unit supports Group management in constantly monitoring the financial markets' expectations about the Group's performance. During the two weeks prior to the approval of the periodic economic and financial data no representative of the Group may take part in meetings with analysts or institutional investors (one-to-one or group meetings) relating to financial performance (the "black-out period"). The contents of the Investors section on A2A's website are constantly monitored, enhanced and updated. Retail investors can contact the IR unit by email, fax or letter by following the instructions to be found on the website.

The IR unit is responsible for providing an answer to all questions in the shortest time possible. These answers may only be provided for subjects connected with IR activities and, as far as the A2A share is concerned, the IR unit can only refer to public information available on the Group's website. The IR unit's responsibilities do not include the release of comments or interpretations concerning the performance of the share or financial consultancy on investments in the share.

3.6 Tables: the numbers of the A2A Group

32 Gross operating income by sector

(in millions of euro)	2010	2011	2012
Energy	441	336	541
Heat and services	70	67	73
Environment	262	287	219
Networks	298	259	242
Other services and corporate	-31	-25	-7
Total	1,040	924	1,068

33 Balance sheet

(in millions of euro)	2010	2011	2012
Net fixed assets	7,911	5,846	6,969
Working capital	763	850	823
Assets and liabilities held for sale*	64	918	277
Net capital employed	8,738	7,614	8,069
Equity	4,845	3,593	3,697
of which			
- Group share	3,501	2,767	2,846
- Minority share	1,344	826	851
Net financial position	3,893	4,021	4,372
Total sources	8,738	7,614	8,069
Gross debt	4,209	4,551	5,074

^{*}Excluding balances included in the net financial position

34 Financial statement indicators relating to personnel

	2010	2011	2012
Gross operating income per permanent employee (in millions of euro)	0.09	0.08	0.08
Net income per permanent employee (in millions of euro)	0.03	-0.04	0.02
Average number of permanent employees	12,171	11,960	12,771

35 CAPEX

(in millions of euro)	2010	2011*	2012
Energy	44	32	103
Heat and services	69	57	49
Networks	134	119	123
Environment	58	35	48
Services	24	28	30
Total	329	271	353

^{*}Following the sale of the Coriance group in 2012 the figures have been restated to be consistent with those published in the consolidated annual report for 2012, to which reference should be made for further information.

36 Share indices

	2010	2011	2012
Earnings per share (EPS) (euro)	0.098	-0.134	0.083
Cash flow per share (CFPS) (euro)	0.269	0.131	0.307
Dividend per share (DPS) (euro)	0.096	0.013	0.026
Price/earnings per share (P/EPS)	12.29x	-7.28x	6.06x
Price/cash flow (P/CFPS)	4.48x	7.45x	1.64x
Dividend yield (DPS/P)	8.00%	1.30%	5.20%
Number of shares (million)	3,133	3,133	3,133

37 A2A on the stock exchange in 2012

Average capitalisation (in millions of euro)	1,574
Capitalisation at December 31, 2012 (in millions of euro)	1,370
Average volume (euro)	22,859,256
Average share price* (euro per share)	0.503
Maximum share price* (euro per share)	0.793
Minimum share price* (euro per share)	0.289

^{*}Source: Bloomberg

38 A2A's debt rating

Agency	Current		
Standard & Poor's	Medium/long-term rating	BBB	
	Short-term rating	A-2	
	Outlook	Negative	
Moody's	Medium/long-term rating	Baa3	
	Outlook	Negative	

4.0 Environmental responsibility





4.1 Managing the environment

IDENTITY CARD

AT DECEMBER 31, 2012

The UNI EN ISO 14001 environmental management system is officially recognised in the A2A Group with the following coverage:

Plants:

- 100% of installed hydroelectric power
- 100% of installed thermoelectric power
- 83% of cogeneration park thermal power and 87% of cogeneration park electric power from fossil/renewable sources
- 100% of the treatment capacity of the waste to energy plants
- o 87% of the treatment capacity of the other integrated waste cycle plants.

Networks:

- 100% of the Milan area gas distribution network
- 100% of the electricity distribution network
- 100% of the integrated water cycle of the Municipality of Brescia
- o 100% of the Milan and Brescia area district heating network
- 100% of public lighting and traffic lights

Services:

- o 100% of environmental services
- 71% of urban waste water treatment capacity

Thirteen of the Group's assets are EMAS registered.

Environmental
Management System
aligned to new needs
and internal controls
intensified for the
prevention of the
environmental offences
included in Legislative
Decree no. 231/01

Developed a system for identifying and reporting environmental expenditure and investment

Successfully completed the COSMOS (for the inertisation of fly ash) and INTEGRIS (Intelligent Electrical Grid Sector Sensor communications) innovation projects

4.1.1 Environmental policy

A2A has gradually set up a series of tools for guiding and governing decisions that affect the environment and its reference communities, fine-tuning and adapting its strategy to agreed values and principles, in line with the Sustainability Plan's objectives.

Managing its own activities is a precise commitment made by the Group, as it seeks to reduce environmental effects as much as possible by means of constant research, continuous technological development and a suitable investment plan. As part of this general framework, the Group is involved in developing products and services for energy efficiency, encouraging the use of renewable sources and developing technologies to optimise the waste cycle for society as a whole and for businesses.

The desire to establish and implement policies for the environment which are suited to the purposes of individual companies and the Group and directed towards the sustainable development of their activities is clearly expressed in a single document: "**Group Policy**", together with guidelines for quality and safety. This document, which can be consulted by all the parties concerned, acts as the formal attestation of the commitment of A2A's corporate governance bodies to ensuring the pursuit of the set objectives. The A2A Group's Policy also sets out to be a genuine tool for achieving unity and agreement of strategies and conduct between all the parties involved: employees, customers, suppliers, residents and shareholders.



4.1.2 Environmental management system

The management of environmental aspects in A2A is supported by internationally recognised certified standards (ISO 14001 and the EMAS Regulation) and is based on a constant improvement in performance.

The Group's Environment, Health and Safety Department supports management in identifying the lines of general action to be taken and in establishing environmental directives; it additionally provides technical support to the individual operating entities in the process of developing, managing and updating specific Environmental Management Systems as part of implementing the Sustainability Plan.

One or more management representatives are appointed in each individual company having the responsibility to design, build, extend and apply the Environmental Management System.

The management representative is supported by the "Environmental Management System Coordination Committee", which consists of the heads of the operating lines, and by the representatives of the structures which contribute to the management of the System and include the Group's Environment, Health and Safety Department.

The Committee identifies and evaluates the aspects and the environmental impacts of the specific activities, establishes the objectives and improvement programmes and proposes these to management, then coordinating their implementation, takes decisions on the steps to be taken to ensure proper environmental management and establishes the operating and monitoring details for the various activities.

As a result of the extension of the application of Legislative Decree no. 231/01 to environmental offences, the parent company is carrying out a review and revision of the Environmental Management System to bring it into line with the new requirements. A revision of the way in which activities linked to committing environmental offences are managed internally has been started in the individual operating entities. Considerable attention was also given in 2012 to the process of training staff in **matters regarding environmental legislation**: a system has been designed to identify and manage training needs and priority

subjects have been pinpointed which will be examined in detail on specific courses as well as the people who will receive such training. This has led to the definition of a series of steps to be taken on environmental matters, some of which have already been initiated and others of which will be started in 2013.

4.1.3 Environmental risk management

A2A manages its activities by optimising the efficiency of processes and concerning itself with planning and implementing specific strategies for the **prevention and management of the environmental risks** connected with any failure to comply with legislation or environmental accidents. A detailed analysis of all the Group's entities and activities enables A2A to identify significant environmental aspects and the related environmental emergencies. The action plan adopted for managing these aspects consists of control, supervision and emergency procedures which set out to be tools by means of which risks can be prevented and managed. The most suitable requirements and tools for managing environmental risks are specifically listed in Emergency Management Plans and Environmental Management Systems. In addition, A2A has taken out specific insurance against any damage that may arise from accidental and gradual pollution in terms of both third party liability and the recovery of any reclamation costs inside and outside the plants.

FEWER RISKS AND MORE SAVINGS WITH CERTIFIED PLANTS

Being qualified to transport waste and authorised to operate waste management plants leads to the need to provide specific financial guarantees, with amounts established by current legislation, as security for any environmental damage that may occur.

For the plants and activities whose Environmental Management System is recognised through UNI EN ISO 14001 certification or EMAS registration, the law provides for a respective reduction of 40% and 50% of the amounts of the sureties by virtue of the fact that proper management of the plants and activities favours a minimisation of the risks but also, and above all, a significant reduction in any environmental damage. Thanks to the recognition obtained for the Environmental Management Systems which govern the transportation and waste treatment activities, the Group has benefited from an overall reduction of over 50 million euro in the amount insured.

In order to ensure that the Group **complies with current legislation** and meets its commitments, starting from general information produced by the parent company, the heads of the legal affairs departments in the various entities are responsible for identifying and updating the applicable provisions, checking they are being applied and arranging for the support of the areas and staff to be provided for going into further technical and legal detail.

An internal legislative compliance checking process is operational in entities having consolidated environmental management systems, which is carried out through the use of periodic inspections. Since 2012 this process is also being gradually applied to the other entities controlled by the Group.

No environmental damage, significant spillages or significant environmental emergencies were noted in 2012 other than the start of fires in certain cases, of which one - which occurred on the Corteolona biodessication line - required the fire brigade to be called out. The Group was not required to pay any significant fines or non-monetary sanctions for the failure to comply with environmental laws and regulations. A small number of proceedings regarding formal or economic questions are currently in progress..

MANAGING ENVIRONMENTAL ASPECTS WHEN CONSTRUCTING NEW PLANTS

Aware of the environmental effects that may be indirectly caused by its activities, A2A carefully watches over all the operating stages, starting from the design and construction of the plants and services managed by the Group. Taking a correct approach at the design stage and during construction facilitates performance optimisation during the later stages of use. The planning of a project is affected by the context and geographical and environmental specifics of the area chosen to accommodate the plants and should therefore be conducted by introducing suitable measures to mitigate the environmental and visual impact. The variables affecting the selection of the location and planning decisions consist of the internal and external activities carried out during the process, the direct and indirect environmental aspects connected with these and environmental impacts. Design strategies also focus on where to locate the plants, with the object being to have several services and activities in a single area, so that the extent of the effects can be mitigated.

The use of the best available technologies, including Environmental Management Systems, enables the effects on the environment due to business activities to be minimised and allows for the most suitable prevention and mitigation strategies to be identified.

A proper management of the environmental aspects, including during the design stage, has enabled the parent company and numerous other Group companies such as A2A Calore e Servizi, A2A Ciclo Idrico, A2A Reti Elettriche, A2A Reti Gas A2A Servizi alla Distribuzione, AMSA, Aprica and Ecodeco to obtain ISO 14001 certifications for engineering services

4.1.4 Environmental accounting

A2A has a system of environmental accounting that collects data on activities, plants and services, together with physical environmental data and data on the costs incurred by the Group to protect the environment. An analysis of the latter data in comparison with the environmental benefits obtained enables the Group to control and optimise the management of technological and organisational investments designed to improve environmental performance.

In 2012 the Group developed a **system for identifying and reporting expenditure and investment on the environment** by adapting the information technology tools already used during all the various stages of operations, starting with the purchase of goods and services, with the possibility of creating indicators for statistical and communications purposes by company, by subject matter or for the whole Group.

The SEREE-EPEA model is used to classify environmental spending (*Système Européen de Rassemblement de L'Information Economique sur l'Environnement*, a system of satellite accounts conceived by Eurostat for collecting economic information on the environment and harmonised at a European level), supplemented by other items relating to the saving of resources. While waiting for the system to become fully operational, the following table is proposed as a summary of investment expenditure at Group level, with figures being combined under the separate headings of investments for reducing emissions (into the air and into water), investments for energy efficiency, investments for renewable energy and investments for innovation.

39 Environmental expenditure (mln €)

Classification of investments	Energy sector	Heat sector	Environment sector	Services sector	Total
Emission reduction	0.32	5.18	0.35	-	5.85
Energy efficiency	8.70	-	1.28	-	9.98
Renewable energy (hydroelectric, biogas and solar)	10.09	-	3.24	-	13.33
Innovation	0.39	-	1.12	0.20	1.71
Total specific sector investments	19.50	5.18	5.99	0.20	30.87

In order for the individual operating entities to collect, check and validate **physical data**, A2A uses a software application which enables the data for the individual plants, processes and services to be entered from any location or site, with an internet browser acting as an interface. A controlled access system allows the data to be approved and validated before being processed to arrive at the environmental and sustainability indicators.

Significant indicators and data for the Group as a whole are presented in the tables to be found at the end of this chapter.

4.1.5 Research and innovation for the environment

A2A invests in innovation technology as a means of guaranteeing its continuous search for sustainability and its constant emphasis on the protection of the local territory and the environment.

Amongst other things these objectives are achieved by collaborating with bodies and institutions which support the Group in conducting its research activities and which contribute significant value added in terms of development and growth.

A number of projects were started up in 2012, described in the following, regarding the development of communication technologies for managing electricity networks (smart grids), and reference should be made to the section Customers on page 146 in this respect.

Reduction of nitrogen oxides

The polycombustible boiler at the Lamarmora district heating plant in Brescia has undergone significant environmental improvement work over the past three years which is aimed at reducing emissions into the air and seeking and maintaining high levels of environmental sustainability:

- a first measure was carried out in 2010 which led to the installation of a High Dust DeNOx catalyst system on the boiler outlet to reduce nitrogen oxides, while the main components of the desulphurizing system which has been modified are: a sleeve filter and a desulphurizing reactor and the systems auxiliary to these;
- with a second measure carried out in 2012 the sleeve filter's reduction capacity was improved by significantly increasing the filter's surface area;
- desulphurizing cylinder was widened in 2012, increasing its potentiality and effectiveness; in addition, a
 number of auxiliary components having features more suited to the new performance expected of the
 system were introduced to replace the previous ones.

Testing is currently taking place to assess the benefits deriving from the action taken on the desulphurizing reactor. In addition, models have also been developed for a fluid dynamic analysis of the process in order to obtain the highest yield from the new components. In this way the desulphurizer will be able to achieve extremely high performance levels.

Following the completion of the above measures the polycombustible unit at the Lamarmora plant (cutting edge from the start, given also its use in cogeneration) can now consider itself to be in line with technological developments, being fully compliant with the limits of national law and the stricter approval limits, and also reaching the level of the Best Available Techniques specified by the European Commission (Reference Document on Best Available Techniques for Large Combustion Plants - July 2006).

The COSMOS project

The project for rendering fly ash inert came to a conclusion in 2012; the effectiveness of this process, already shown in laboratory tests, has also been confirmed on a pre-industrial scale by using a pilot plant. The process for rendering final filtration dust inert was set up by the University of Brescia and finalised by the European Commission as part of the LIFE+ Programme - Project ENV/IT/434 entitled COSMOS "Colloidal"

Silica Medium to Obtain Safe inert".

In operation since October 2011, this equipment enables the new inert called COSMOS to be extracted through the inertisation of the ash, a process which is carried out by mixing the dust with the colloidal silica and then washing it. The equipment is located on an area of approximately 100 m² inside the Brescia waste to energy plant and is separated into two different structures: one for mixing, where the ash is mixed with other materials to start off the inertisation process, and the other for washing, to extract the soluble salts contained in the product resulting from the mixing. This type of treatment provides a number of economic and environmental benefits:

- energy savings;
- the separation of carbon dioxide;
- the elimination of the waste from the fume treatment, given that a useful material is obtained instead of waste to be taken to the landfill.

A concluding convention was held for the COSMOS project in December 2012, at which the results obtained were presented. The project has been taken as a virtuous model for reaching objectives at or above expectations and for identifying possible industrial applications for new processes and/or products. The tests for measuring the toxicity of COSMOS, carried out on embryos of small freshwater fish by the Molecular Medicine research group of the faculty of Medicine of the University of Brescia, provided results close to zero in respect of mortality, morphological defects and congenital malformations.

4.1.6 Biodiversity and the countryside

Safeguarding biodiversity is a fundamental principle and one on which the maintenance of terrestrial ecosystems in conditions that enable the development of the life of man and other living species is based. A2A collaborates with entities, institutions and associations to protect the local area to ensure that biodiversity and countryside are constantly safeguarded.

Locating the Group's plants close to areas of particular natural beauty or which, by virtue of their specific ecological and environmental features, have acquired the "status" of Parks or Protected Areas, takes strict account of the need to minimise any impact on the environment by running plants and activities using a means compatible with the vulnerability and sensitivity of the environment. Environmental restrictions, if any, are not perceived as a limit or imposition, but rather as a positive element for maintaining the natural balances of the local area.

In addition to being listed as environmental offences within the meaning of Legislative Decree no. 231/2001, the acts of destroying or significantly harming habitats situated inside a protected site and killing, removing or capturing protected wild animal or plant species are recognised by the Group as ethically incorrect. A number of the Group's electricity production plants are to a large extent situated in areas of considerable environmental interest, including: in Lombardy, the Adda Nord regional park, the Mincio regional park and the Stelvio national park; in Calabria, the Sila national park.

40 Main animal and plant species vulnerable to or at risk of extinction in the parks in which A₂A operates

	Stelvio national park		Sila national park Adda Nord regional park		Mincio regional park		
	IUCN red-list	Italian red-list	Italian red-list	IUCN red-list	Italian red-list	IUCN red-list	Italian red-list
	Snow vole	Royal eagle	Snow vole	Squirrel	Grey heron	Red-footed falcon	Grey heron
	Squirrel	Goshawk	Horned owl			Red kite	Hen harrier
		Roe deer	Northern			Tufted duck	Montaguìs harrie
		Imperial raven	goshawk			Streaked fantail	Horned owl
		Rock partridge	Goat			warbler	Cattle egret
		Marten	Hare			Corncrake	Common teal
		Mountain	Wolf				Short-toed snake
		partridge	Marten				eagle
		Grouse	Squirrel				Gadwall
		Bearded					Cormorant
		volture					Imperial raven
nimal		Alpine chough					Common owl
pecies		Royal owl					Fraticello
•		Hare					Mediterranean
		Wolf					gull
		White partridge					Mignattino
		Dotterel					Tufted duck
		Squirrel					Redshank
							Green
							woodpecker
							Corncrake
							Great bittern
							Common
							shelduck
Plant		Alpine Star				Floating fern	
pecies						Summer lady's	
- P-01-00						tresses	



Care for the countryside and biodiversity also translate into the planning and adoption of environmental compensation strategies, which while not directly reducing the impact caused by building and operating plants and carrying out activities there, enable the conditions of the environment, the local area and the countryside to be improved or benefits to be brought to the animal and/or plant species to be found there.

BIOLOGICAL CORRIDOR WITH 39 SPECIES OF PLANTS AT THE GISSI PLANT IN ABRUZZO

Planting work was completed in Abruzzo in 2012 in the area known as the "biological corridor", which lies between the River Sinello and the eastern side of the Gissi plant, owned by Abruzzo Energia. The corridor extends for an area of approximately 15,000 m² and the project materialised with the bedding out of 49 different species of plant, typical of this natural environment. In addition, as specified in the authorisation given to the plant, a five-year monitoring plan looking into the effectiveness of the way in which the green areas have been arranged has been started.

REDEVELOPMENT OF FISH LIFE IN LAKE PASSANTE IN THE SILA PARK

In June 2012 A2A began work involving environmental compensation and fish life redevelopment at Lake Passante in the Sila Park. This followed the emptying of the lake, which was carried out in 2011 to perform essential extraordinary maintenance activities on the structure of the hydroelectric plants and to remove the silt from the dams which has settled over the years. This operation caused the fish life to leave the lake, and hence the need for the "environmental compensation" operation, organised by A2A with the Province of Catanzaro, which consisted in putting valuable native fish into the lake such as the "brown trout", which has always been considered to be the "queen of the Passante". The Italian Angling Association (Fipsas) collaborated in the project together with a group of Environmental Guards. As part of the protocol agreement signed with the Province of Catanzaro, A2A plans to carry out environmental redevelopment of all the plants managed by the Group throughout the province, including the restocking of the rivers such as the Alli and the Simeri. Further initiatives are currently being worked upon which will regard all the area's dykes and dams.

NESTING NICHES AT THE CASSANO D'ADDA AND PONTI SUL MINCIO PLANTS

To encourage the nesting of birds of prey a cubbyhole was built and installed at the Cassano D'Adda plant at the level of the window of the reinforced concrete chimney stack, at over 100 metres in height, to create a niche to take in nesting couples. The first to take advantage of this possibility was a pair of kestrels (Falco Tinniculus), while the Ponti sul Mincio plant is hosting the nest of a pair of peregrine falcons (Falco Peregrinus). The two species of falcon, identified thanks to the support of a falconer, are on the national list of protected species.

4.1.7 Effects connected with transport

Assessing the impact of transport regards considering the use of motor vehicles for waste collection, environmental hygiene and network maintenance purposes, and also for moving employees. In running its vehicle fleet, A2A has taken a series of initiatives aimed at reducing the consumption of oil-derived fuels and the emission of pollutants into the atmosphere.

A large part of the Group's vehicles are equipped with a bifuel system, meaning that they can run on methane as an alternative to traditional fuels. In addition, the implementation of the e-moving project continued in 2012; this is a project promoted by A2A to encourage the use of zero impact electric vehicles, thanks to the spreading of recharging columns in Brescia and Milan.

E-MOVING: SUSTAINABLE MOBILITY

A2A has long been involved in a pilot project for electric mobility called e-moving, promoted in conjunction with Renault, the municipal administrations of Milan and Brescia and a number of private companies who have joined in with the testing and which is also being supported by the Electricity and Gas Authority (AEEG). A2A is the promoter and coordinator of the initiative and has built up a recharging infrastructure for electric cars in Milan and Brescia with a total of 270 recharging points, while Renault has made 47 vehicles (saloon cars and vans) available from its Zero Emission range, equipped with latest generation lithium-ion batteries. In addition to the companies who have been involved in the project, private individuals who own an electric vehicle (car or scooter) can apply for a card on the dedicated portal www.e-moving.it which enables them to charge up at the columns installed in public places.

Within the sphere of all the testing being promoted by the AEEG, which will continue until 2015, the emoving project is the most completed and advanced platform. Two technical discussion tables were started up in the second half of the year with Enel and Repower to make the interoperability of the public recharging infrastructures and the top-up cards usable by end customers more effective, as requested by the AEEG.



4.1.8 Removal of asbestos and polychlorinated biphenyls

The Group's Environmental Policy requires the careful handling of dangerous substances such as asbestos and polychlorinated biphenyl (PCB) through the planning of extraordinary maintenance measures designed to remove these materials.

The cataloguing of the Group's structures affected by the presence of asbestos continued in 2012, a process which also recorded their condition. This information acts as a basis for identifying the needs and priorities for the restoration activities which are gradually being undertaken.

A total of 1,500 m² of roofing in concrete-asbestos was removed during the year, located in the employees' parking lot at the Cassano D'Adda thermoelectric plant. Seven flame traps remain at the plant which have been made safe by encapsulation. In agreement with the local health authorities their condition is regularly controlled, and whenever these structures have to be involved in the maintenance work carried out on the plants they are removed and disposed of.

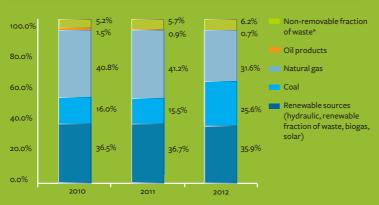
During 2012 A2A Reti Gas continued the restoration work indicated in the 2011-2013 three-year plan, replacing the asbestos covers of 22 plants for a total surface area of 1,114 m^2 . At the same time monitoring work continued on plants with asbestos by carrying out PCOM (Phase Contrast Optical Microscopy) measurements designed to test for the presence of air dispersed fibres in working environments. A2A Reti Gas management has confirmed the objective to remove all the materials containing asbestos that are still to be found in the structures.



IDENTITY CARD

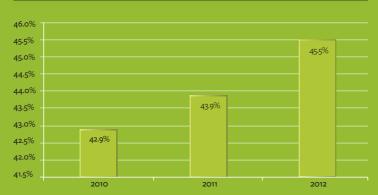
AT DECEMBER 31, 2012

41 Electricity production by source



* It has been assumed that there is a renewable fraction of 51% for non-hazardous waste (ref. Decree of the Ministry for Economic Development of December 18, 2008). As a consequence the non-renewable fraction is taken to be 49 %.

42 Thermal energy from waste to energy**



** Energy produced by waste to energy plants and biogas plants as a percentage of the total energy produced by the Group

10112 2012

The volume served by district heating in the areas of Milan, Brescia, Bergamo and Varese increases by 11%

The proportion of electricity obtained from renewable sources reaches 25.9%

Thermal energy removed from waste increases by 10%



4.2.1 Efficiency in energy production

Efficiency in energy production

Renewable sources play a key role for the A2A Group. By exploiting the energy in the water of mountain basins, water courses and underground flows significant benefits can be obtained in environmental terms, as atmospheric emissions are eliminated and at the same time the use of fossil fuels and the constant dependence on these is reduced.

Hydroelectricity, historically present in the companies from which the A2A Group arose, is the renewable source par excellence used by A2A to produce electricity. Over the past few years the installed power available in the Group (Valtellina approximately 778MWe, small-sized plants in the province of Bergamo approximately 9 MWe) has been considerably increased due to the acquisition of the hydroelectric plant in Calabria (approximately 491 MWe) and a significant shareholding in the Montenegro hydroelectric company FPCG.

Hydroelectric production amounted to 2.63TMh in 2012. Installed electric power from all of the Group's renewable sources totalled 30% in 2012, while the corresponding production of electricity from renewable sources reached 36%. National electricity production from renewable sources in 2011 amounted to 23.5% (the latest available figure - Source: GSE - "Statistical report 2011 - Renewable source plants").

A significant contribution to the production of electricity and heat from renewable sources also comes from waste to energy plants based on urban and special waste and the use of the biogas that is generated from the biological decomposition of waste in landfills and underground water heat pumps.

This latter technology is used successfully by the Municipality of Milan to feed the district heating networks; the heat pump, fired by electricity, "transfers" the heat contained in a cold source (underground water) to a warmer source (the water circulating in a district heating network) without the "in situ" combustion of methane gas or diesel fuel, and hence without the emission of pollutants into the air.

Cogeneration and district heating

Through the companies A2A Calore & Servizi and Varese Risorse, the A2A Group constructs and manages district heating and district cooling plants and networks. District heating is by now a consolidated reality and is constantly expanding in the cities of Milan, Bergamo, Brescia and Varese and in certain municipalities of the respective provinces. District cooling in Milan is provided by the Tecnocity plant, in Varese by the cogeneration plant at the city's hospital and in Brescia by the northern plant. The available thermal power at the plants amounts to 1,420 MWt and this is obtained by means of various high-efficiency plant solutions such as cogeneration systems (the combined and simultaneous production of electricity and heat), heat recovery systems and heat pumps. These technologies enable savings in fuel to be made, with the resulting reduction in CO_2 emissions.

The development of the district heating service continued in 2012 through the extension of the network and connection to new customers and by means of measures taken to rationalise heat production systems. In Milan, in the area of the Silla 2 waste to energy plant, a 50 MW heat exchange station has been put into service which is dedicated to feeding the Rho and Pero district heating network (sold during the year to the company NET which is held by the respective municipalities). At the same time the network rationalisation plan is proceeding by connecting the distribution networks of the various production hubs with one another. The Sesto/Cinisello Balsamo, Ponte Nuovo and Tecnocity networks were linked up together in 2012, thereby completing interconnection in the northern part of Milan. In the meantime work is also currently in progress to interconnect the Canavese and Santa Giulia networks in the eastern part of the city and the Famagosta and Figino networks in the west. The acquisition of the district heating system of two quarters of Milan called Rubattino and Pompeo Leoni is also worthy of note.

43 State of the art and development of A2A's district heating A2A in Lombardy

		Situation at December 31, 2012					
	Network development (double tube)	Connected buildings* (users) no.	Volume served Mm ³	Equivalent apartments** no.	Volumetria servita Mm ³		
Bergamo area	39.6	390	4.7	19,700	7.2		
Brescia area	654.9	20,373	41.3	172,100	42.6		
Milano area	220.4	2,607	37.2	155,000	47.0		
Varese area	16.0	141	2.6	10,800	2.7		
	930.9	23,511	85.8	357,600	99.5		

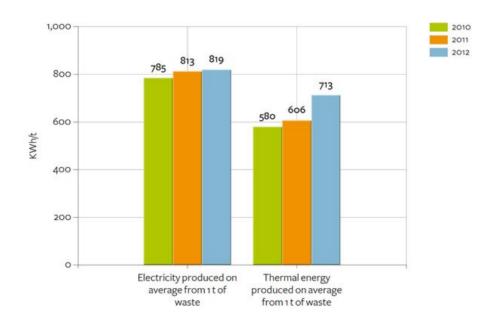
 $[*]Users \, may \, be \, a \, single \, residential \, unit \, in \, the \, case \, of \, independent \, heating \, or \, a \, whole \, building \, in \, the \, case \, of \, centralised \, heating \, or \, a \, whole \, building \, in \, the \, case \, of \, centralised \, heating \, or \, a \, whole \, building \, in \, the \, case \, of \, centralised \, heating \, or \, a \, whole \, building \, in \, the \, case \, of \, centralised \, heating \, or \, a \, whole \, building \, in \, the \, case \, of \, centralised \, heating \, or \, a \, whole \, building \, in \, the \, case \, of \, centralised \, heating \, or \, a \, whole \, building \, in \, the \, case \, of \, centralised \, heating \, or \, a \, whole \, building \, in \, the \, case \, of \, centralised \, heating \, or \, a \, whole \, building \, in \, the \, case \, of \, centralised \, heating \, or \, a \, whole \, building \, in \, the \, case \, of \, centralised \, heating \, or \, a \, whole \, building \, in \, the \, case \, of \, centralised \, heating \, or \, a \, whole \, building \, in \, the \, case \, of \, centralised \, heating \, or \, a \, whole \, building \, in \, the \, case \, of \, centralised \, heating \, or \, a \, whole \, building \, or \, a \, whole \,$

Energy recovery from waste

For the A2A Group the recovery of waste from waste and biomass is a key activity in its energy source diversification strategy. This activity is mainly developed in Lombardy, through the plants in Brescia, Milan, Bergamo and Pavia, and in Campania, through managing the Acerra waste to energy plant. The electricity produced from waste in 2012 was approximately 12.6% of the total produced by A2A, while thermal energy reached 45.5%.

On average 819 kWh of electricity and 713 kWh of thermal energy were produced for each tonne of waste. The rise over the previous year is due, as far as thermal energy is concerned, to the increase in capacity of the Silla 2 waste to energy plant and the adaptation of the heat cycle of the Bergamo waste to energy plant to enable it to work in cogeneration mode. The rise is also due to the increased energy content of incoming waste.

44 Electricity and thermal energy produced from waste



In order to obtain greater efficiency in the production process, in 2012 A2A completed the heat cycle adaption work at the Aprica waste to energy plant in Bergamo to increase its operations in cogeneration

^{**}Apartment equivalent = 80 m 2

mode. Following this intervention around 30 GWh was produced in the first three months of the plant's operations, with a saving of 6 thousand tonnes of CO2 deriving from the avoided combustion of 3 million cubic metres of methane.

The work carried out at the Silla 2 waste to energy plant in Milan regarded the low pressure available power for the district heating network, which rose from 68 MWt to 118 MWt. It is planned to arrive at 135 MWt by the end of the 2013-2014 thermal season.

In Campania, A2A runs the Acerra (Naples) waste to energy plant through the company Partenope Ambiente, and the results of this plant are summarised in the caption below.

WASTE TO ENERGY AT ACERRA FULL ENERGY AND ENVIRONMENTAL EFFICIENCY

The Acerra waste to energy plant confirmed full production capacity in 2012, processing over 615 tonnes of pre-treated urban waste arriving from collection throughout the Region of Campania and putting around 552 GWh of electricity into the grid; production of this total would otherwise have required the use of 103 thousand tonnes of oil equivalent.

Besides confirming its high energy efficiency and processing levels, the plant also kept up its excellent performance from an environmental standpoint. Atmospheric emissions were continuously monitored by means of two monitoring systems installed on each chimney. Seven monitoring campaigns were carried out during the year by accredited independent laboratories, all of which confirmed the plant's reliability and the fume treatment system's efficiency. High performance results were also achieved on emissions of organic micro-pollutants into the atmosphere, extracted by means of systems installed on each line. Monthly measurement campaigns were also conducted on water discharges together with two measuring campaigns on underground water, which certified full compliance of the values read with the plant's authorisation provisions.

Partenope Ambiente concluded its path to Quality, Environment and Safety Management System certification in 2012, obtaining validation of the Environmental Declaration for the Acerra waste to energy plant and making an application with the national committee for EMAS registration.

THE ENVIRONMENT MARKETS

Environmental sustainability and the fight against climate change are the key matters to be found in the media and on government agendas. The European Union is determined to pursue environmental policies with increasingly ambitious objectives in order to give a strong technological and economic thrust to member states.

The framework for supporting renewable sources (both electric and thermal) and energy efficiency was set up in 2012. As far as electricity production is concerned, two decrees were published in July dealing with photovoltaic systems and other sources (the Decrees of the Ministry for Economic Development of July 5 and 6, 2012). On December 28, the decree which introduces the Thermal Energy Account was published together with that on white certificates, confirming the validity of these as a mechanism for encouraging energy efficiency. These decrees include the recommendations made in the National Energy Strategy to the full, and will steer Italy towards the EU's 2020 targets.

There are three regulatory cap and trade schemes on environmental matters in Italy, meaning those based on the setting of a ceiling and a trading mechanism:

- **Emissions Trading Scheme** (ETS): which linked to the 1997 Kyoto Protocol has the aim of containing carbon dioxide emissions;
- **White Certificates** (or Energy Efficiency Certificates), which have the objective of increasing energy efficiency in the end consumption of energy and the use of thermal renewable sources;
- **Green Certificates**, whose aim is to increase the production of energy from renewable sources and which will remain in force until 2015 (this mechanism will be replaced by a "feed-in tariff" approach in 2016).

A2A Trading manages the overall portfolio of the Group's environmental allowances through bilateral deals and by participating on all of the sector's main organised markets. Numerous plants form part of the environmental markets and these are to be found in various Group companies:

- Emissions Trading Scheme: 27 plants of which 10 thermoelectric plants, 2 waste to energy plants and 15 cogeneration and boiler plants;
- Green Certificates: 30 plants producing from conventional sources and from renewable or cogeneration sources.

In terms of energy efficiency, A2A is the third leading national operator as far as energy savings targets are concerned, which in 2012 amounted to 305,699 toe (tonnes of oil equivalent), a figure which corresponds to slightly more than 5% of Italy's target of 6 Mtoe and continually rises until 2013. In view of A2A's obligations and the increasing importance that the question of energy efficiency is assuming, the Group has set up an internal working group with the aim of encouraging and supporting a reduction in the consumption of primary energy in end usage through the use of White Certificates in Group companies and in small, medium and large sized industrial entities. In substance A2A encourages measures aimed at improving energy efficiency such as the setting up of an Energy Service Company (ESCO) which can assist in carrying out new projects by putting its know-how at the disposal of industrial companies and plant constructors and taking part in new energy efficiency projects which generate white certificates.

4.2.2 Managing the environmental aspects

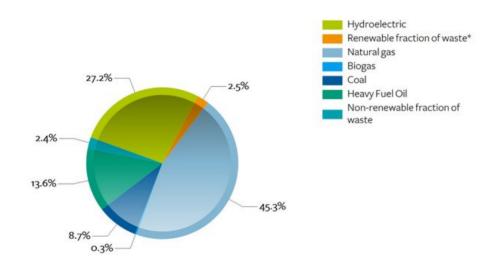
Use of resources

The A2A Group is characterised by a significant **use of renewable sources and** by a **wide diversification of energy sources**, among which a considerable role is played by the recovery of energy from waste. In addition, electricity production is based on the use of primary energy sources with a high diversification of installed power amongst renewable and fossil sources and amongst the various fossil fuels. With reference to the latter, the coal and oil product installed power consists partially of polycombustible plants, which can therefore use both coal and heavy fuel oil for optimising the economic yield.

A2A has around 2,000 MWe of installed electric potential based on high yield combined cycle technology fired by coal and biomasses and 640 MWe fired by heavy fuel oil. A conversion project based on more efficient technologies has been presented in the latter case (*see dedicated caption*).

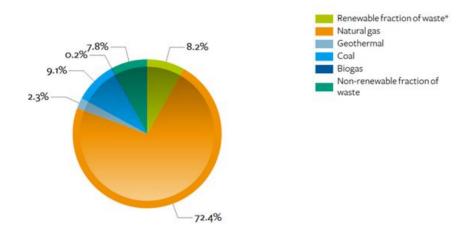
The total yield of A2A's thermoelectric park in 2012 was 43% (the national average was 44.7%). The figure is slightly below that for 2011 because a higher proportion of energy was produced using conventional polycombustible groups, which had a lower yield than the natural gas fired groups (high efficiency combined cycle). The average yield of cogeneration plants fired by fossil fuels was 78%.

45 Installed electric power by source



*On the basis of the type of waste on entry, the portion of power generated by renewable sources is 51%

46 Installed thermal power by source



 $^*On the basis of the type of waste on entry, the portion of power generated by renewable sources is 51\% and 50\% are the basis of the type of waste on entry, the portion of power generated by renewable sources is 51\% and 50\% are the basis of the type of waste on entry, the portion of power generated by renewable sources is 51\% and 50\% are the basis of the type of waste on entry, the portion of power generated by renewable sources is 51\% and 50\% are the basis of the type of waste on entry, the portion of power generated by renewable sources is 51\% and 50\% are the basis of the type of waste on entry, the portion of power generated by renewable sources is 51\% and 50\% are the basis of th$

Use of the water resource

A2A is constantly engaged in carrying out measures to improve the use of the water resource from a sustainability standpoint

Activity	Use of water
Hydroelectric production	The hydrographic basins most involved are those of the rivers Adda and Spoel in the Upper Valtellina in Lombardy and those of the rivers Neto, Simeri, Ancinale and Savuto in Calabria. The water extracted is returned in full.
Thermoelectric production	The water is needed for the production of steam, for cooling purposes in the thermodynamic cycle, and for limiting the dispersion of dust. The water bodies involved in the extraction are: the Valentinis canal (the Monfalcone thermoelectric plant - Gorizia), the Muzza canal (the Cassano D'Adda thermoelectric plant - Milan), the River Mincio (the Ponte sul Mincio thermoelectric plant - Mantua). The water extracted for cooling is fully returned to the same water body with the same qualitative features apart from a slight increase in temperature.
District heatingo	The consumption of water is mainly due to the reintegration of the network water, which is mostly carried out through the use of aqueduct drinking water. In certain of the A2A Group's plants underground water heat pumps are used, with the water being extracted from wells located close to the plants.
Electricity distribution	In certain plants the water is needed for cooling the transformers and in part comes from wells and in part from aqueducts.

The entire requirement for water at the Gissi (Chieti) thermoelectric plant is obtained from the recovery of rainwater and the use of water coming from the consortium's purifier. A reservoir having a capacity of 300 m² was built in 2012 to complete the adjustments needed to comply with regional legislation on managing first rainwater, maximising the use of meteoric water as opposed to that coming from the purifier.

A system has been adopted at the Lamarmora plant in Brescia for despatching the part of the waste water exiting the purifier to the waste to energy plant; this water is then used to extinguish the slag. This enables a reduction to be achieved in the volume discharged into the surface water body and in the quantity of water supplied.

A new objective has been proposed for the Filago (Bergamo) waste to energy plant relating to the recovery of rainwater: instead of being discharged directly into the sewage system it will be used to soak the ash before

the inertisation treatment in order to reduce the quantity of water extracted from the well.

A total of 162,000 m³ of water was recovered in the energy sector in 2012.

The A2A Group's production plants are equipped with **advanced fume purifiers making it possible to stay well within the authorised limits** and, in many case, achieve the performance levels identified by the European Commission for the Best Available Technologies.

The main pollutants for which norms exist in the fossil fuel fired plants are: nitrogen oxides, carbon monoxide, sulphur oxides and dust.

In the thermoelectric plants and in the waste to energy plants the emission levels of these pollutants are kept under control by using **continuous data monitoring systems**, with the recorded data being periodically sent to the competent authority. The region of Lombardy has additionally established that the monitoring network for emissions from large-scale plants (the "SME network") in Lombardy must be added to the existing air quality network to enable the ARPA (the Regional Environmental Protection Agency) to have access to the instant data generated.

As far as the emissions of the waste to energy plants are concerned, a great deal of emphasis has been placed on the emissions of dioxins and polychlorinated phenyls, polycyclic aromatic hydrocarbons and metals. These pollutants are **monitored on the basis of a predetermined frequency** to ensure that legal limits are complied with. The concentrations measured have always been lower than legal limits and have been somewhat variable, in certain cases below the measurability threshold.

Among the initiatives designed to protect air quality is the continuation of the sampling activity included in the environmental monitoring plan drawn up by the ARPA and the Milan Polytechnic (as agreed in the Protocol of Understanding with the Authorities and with the neighbouring Municipalities) and carried out by AMSA. The plan, which has a four year term, provides for two campaigns to be carried out each year.

WASTE TO ENERGY EMISSIONS GO ONLINE

In accordance with the transparency policy followed by A2A, in December 2011 an information service dedicated to emission data for the Group's six waste to energy plants was activated. "Online emissions" enables people to view daily data and the data for the four weeks preceding the day of consultation in a consistent format. The data are gradually filed and summarised in an ad hoc section. This service allow people to have a complete and exhaustive view of all of A2A's waste to energy plants and an accurate check of atmospheric emissions..



The "Air Quality" page may be consulted on the institutional website; this groups together plant atmospheric emission data analysed by region: Lombardy and Campania.

www.a2a.eu

The total emissions of nitrogen oxides, sulphur oxides and dust in 2012 increased over those of the previous years due to an increase in the production of electricity by coal-fired plants (see the tables included at the end of the chapter), caused by trends on the Electricity Market in the present situation of reduced energy demand.

However the values of specific emissions (meaning as a ratio to plant production) ended up in line with those of the previous year (see the tables included at the end of the chapter).

In 2012, emissions of dioxins from the Group's plants totalled 0.014 grams (0.024 grams in 2011), a result achieved thanks to concentrations in the fumes which remained much lower than legal limits, namely one ten billionth of a gram per cubic metre $(0.1g/Nm^3)$.

For the nitrogen oxides and the carbon monoxide, reduced concentrations are achieved by re-circulating fumes, a controlled pre-mixing of fuel and air and the use of catalysts.

The testing of the DeNOx catalyser at the Brescia waste to energy plant was completed in 2012; this enables emissions to be contained within planned levels and at the same time allows a reduction of approximately 20% in the use of ammonia to be achieved.

To reduce the concentration of sulphur oxides the plants using coal are equipped with advanced desulphurization systems. Work was carried out on the desulphurization reactor at the Lamarmora plant in Brescia in 2012 to increase its volume in order to improve the desulphurization process. Wet limestone-chalk desulphurizing (flue-gas desulphurization wet or FGD wet) plants are installed at the thermoelectric plant at Monfalcone (Gorizia), which entered service in November 2008. Using these systems average monthly concentrations of sulphur dioxide (SO2) have been obtained, which are well below 200 mg/Nm³ (the limit set by the current Integrated Environmental Authorisation).

REORGANISATION OF THE MONFALCONE THERMOELECTRIC PLANT

A2A intends to carry out a technological and environmental reorganisation of the thermoelectric plant at Monfalcone (Gorizia). Scheduled in particular is intervention on the coal groups currently in use which is designed to achieve a significant reduction (by more than 75%) of nitrogen oxide emissions by building a new catalytic purification system for the chimney fumes (called DeNOx). This will enable the other groups to remain well within the new strict limits on emissions that the recent European Directive IED 2010/75/EU, currently being introduced in Italian legislation, imposes on all members states.

	Emission limits set by European Directive 2010/75/EU Level of emissions guaranteed by the at the Monfalcone thermoelectric plan	
	(mg/Nm³)	(mg/Nm³)
Nitrogen oxides (NO _x)	150	100
Sulphur dioxide (SO ₂)	150	100
Dust	10	10

In addition, studies have been carried out to replace the current fuel oil groups which have recently been declared out of service for the production of electricity with a new coal group, which will be constructed using the latest technologies. The reasons for this technological proposal are basically to be found in the current national and European energy demand scenario, which on the one hand has seen a constant fall in the demand for electricity since 2009 and on the other a significant increase in production from renewable sources, reducing the room for production by thermoelectric plants which use fossil sources as their primary fuel. Notwithstanding this, even if it will continue over the next few years to represent a large proportion of electricity production in Italy, production from fossil sources will inevitably encourage the use of plants with lower production costs which will therefore have the possibility of being competitive with the other sources of production and in line with prices on the electricity market. In this scenario, coal, with a cost which is considerably lower than that of other fossil fuels and which is widely available throughout the world, can ensure a constant supply and price stability over time.

The environmental efficiency of the proposed solution is guaranteed by combustion technology, which already reduces the production of nitrogen oxides and dust at source, as well as by advanced fume purification technologies which can guarantee atmospheric emissions that are considerably lower than the present situation authorised as part of the A.I.A. (Integrated Environmental Authorisation). The ash and chalk resulting from the fume purification process will be recovered in the cement and building industries, as already happens today. The absence of dust in the external environment will be ensured by a coal bunker with a closed, sealed system, by the separation of fuel transportation belts using a sealed, depressurised tunnel and by the construction of technologically

advanced systems for reducing dust and cleaning the belts.

A2A has presented the technological and environmental study for the plant to the local territorial bodies, also illustrating it at sessions and conferences open to the public and the press, during which details were provided in response to the many questions raised in a mutual listening climate. The subsequent development of the study will lead to the establishment of all the technical financial and economic parameters needed for an ensuing assessment of the merits by both A2A and the respective ministries and local authorities. The redevelopment of the plant represents an important occasion for integrating the plants with the local area. The new group will supply 50 MW of available thermal power for the district heating of residential properties and large-scale users. Thanks to advanced technologies it will be possible to use renewable energy sources in co-combustion with coal, in synergy with the local economy. Finally, the globality of the proposed measures will not only enable current employment levels to be maintained but will also lead to the development, as the work is being carried out, of a commercial spin-off with important repercussions on the local district.

Emissions of greenhouse gases

The A2A Group's activities emit carbon dioxide ($\mathrm{CO_2}$) into the atmosphere both directly (for example during energy production) and indirectly (through energy consumption at plants and offices, the use of consumable goods and materials, etc.). From a global standpoint the management decisions taken and the technologies used by the A2A Group can contribute to a reduction in these emissions at a local level. This is the case for example with cogeneration, energy recovery from waste and energy production from renewable sources. The performance achieved for (direct and indirect) emissions is set out below, together with the benefits in terms of avoided emissions and energy savings.

The total average CO2 emission factor for the Group, calculated by adding together all the emissions from the production of energy and taking this as a ratio of total energy production, was 403 g/kWh (353 g/kWh in 2011). The deterioration is due to the increased activity of the Monfalcone thermoelectric plant (which works on coal) and the reduced production by the Turbogas plants, both being the consequence of the performance of the electricity market and lower energy demand.

As far as CO₂ emissions are concerned, the Group's total figures, including all the emissions from other activities, are as follows:

47 CO₂ balance

Total greenhouse gas emissions - Scope 1 (tCO _{2eq})	5,124,047 (+0,9% rispetto al 2011)
Indirect greenhouse gas emissions - Scope 2 (tCO ₂)	102,479 (-14% rispetto al 2011)
Other indirect greenhouse gas emissions - Scope 3 (tCO ₂)	727,446

A total of 88% of direct emissions (Scope 1) arise from the thermoelectric figure and approximately 10% from emissions due to methane coming from the distribution network, while the remaining emissions are due to biogas not captured by landfills (1%) as well as transport and other small sources of emission. Indirect emissions (Scope 2) are basically due to the use of energy which is not self-produced, while the figure for other emissions (Scope 3) arises from emissions from fuel at production plants managed by A2A and to a small extent emissions from employee transfers for work purposes.

A2A replied to the questionnaire prepared by the Carbon Disclosure Project again in 2012, publishing the figures relating to its financial statements (independently audited) and being classified as one of the top ten Italian companies taking part in the project and accordingly included in the CDLI (Carbon Disclosure

Leadership Index).

Restricting greenhouse gas emissions also passes by way of proper landfill management.

The majority of the "biogas" which is generated by the decomposition of waste consists of methane, which has an atmospheric heating power 25 times that of carbon dioxide (CO2). To reduce these emissions A2A builds biogas capitation (breather) wells where the gas is burned off in a flame. In eight sites energy is recovered from burning the biogas (a gross production of 63 GWh in 2012), avoiding the CO $_2$ emissions that would be generated by producing the same quantity of energy using fossil fuels.

At the Barengo (Novara) and Terzigno (Naples) sites a specific area is dedicated to exploiting the existence of the biogas and the consequent production of electricity. Previously the biogas was not recovered and was burned offin a flame.

In order to measure the savings in CO2 emissions produced by the activities of the A2A Group a method is used **to calculate avoided CO2 emissions and the energy savings** which is applicable to all of the Group's plants and energy processes throughout Italy. This method, which has been used since 2010, is updated every year to take account of changes in the specific situation and variations in the emission factors published by Terna or ISPRA. More specifically, as a comparison in the calculation of waste to energy plant emission savings due to the absence of landfill biogas for this year, the figure for the average Italian landfill capture and the relative recovery reported in ISPA's Italian Greenhouse Gas Inventory - National Inventory Report 2012 was taken (71%), which is a great deal higher than the average IPCC figure (20%). This leads to a lower evaluation of the benefit obtained and the resulting decrease in the calculated figure.

Total avoided emissions in 2012 amounted to **1,374,116 t CO2** (2011: 2,823,227 t CO2) while there was an energy saving of **867,211 tonnes of oil equivalent** (2011: 948,885 toe).

The considerable reduction in savings, especially as regards emissions, is in part due to the change in the reference parameters (first and foremost that relating to biogas capture discussed above). In addition, the increased emissions of the thermoelectric sector (the Monfalcone plant) had an adverse effect, as previously mentioned with regard to emission factors.

The greatest contribution to avoided emissions came from hydroelectric production, which represents around 30% of the A2A Group's electricity production. The waste to energy process also played an important part in contributing to achieving the greenhouse gas reduction objectives. A2A's plants receive waste that cannot be recovered in any other way and the alternative means of disposal is the landfill. The lower emissions of CO2 equivalent are mainly due to the non-dispersion of the biogas not captured by the respective landfill.

Water discharges are the quantity of water discharged by the treatment systems installed at the electricity and thermal energy production plants. After specific treatment, this water is partly recovered and partly discharged.

An innovative system called Zero Liquid Discharge (ZLD) is to be found at the Gissi (Chieti) thermoelectric plant: the water collected in the waste water reservoir is treated by a steam-driven crystaliser, which by causing it to evaporate recovers the water which is then sent to the collection tank for a subsequent treatment and recovery process. The saline residue from this process is filtered and sent for disposal as waste. This technology, accompanied by the incoming water recovery process, is a key example of the recycling of a precious resource such as water.

The following table provides a list of the surface water bodies receiving discharges from production plants.

Site	Surface water body
Corteolona (PV) waste to energy plant	Roggia Bollana
Giussago - Lacchiarella (PV)	Roggia Mezzabarba
Ecolombardia 4 – Filago (BG)	Rio Zender
Famagosta plant - Milan (MI)	Deviatore Olona
Canavese plant - Milan (MI)	Roggia Borgognone
Cassano d'Adda (MI) plant	Canale Muzza
Silla 2 – Milan (MI) waste to energy plant	Cavo Parea
Lamarmora – Brescia (BS) plant	Vaso Guzzetto and Vaso Garzetta
Ponti sul Mincio (MN) plant	Fiume Mincio
Nord - Brescia (BS) plant	Torrente Garza
Monfalcone (G0) plant	Canale Lisert and Canale Valentinis
Acerra (NA) waste to energy plants	Canale Regi Lagni
Bergamo (BG) plants	Torrente Morletta

Management of the produced waste

The production of electricity and heat produces waste, due mainly to the combustion of certain fuels (coal, waste, biomasses) and the purification of the relative fumes. A2A sets the maximum recovery of the waste produced as one of its environmental protection objectives.

The boiler bottom ash of the Brescia waste to energy plant, separated from ferrous metals, has for several years been taken to plants for recovery. Depending on its granulometry and chemical-physical features, this is taken to cement works where it is used as the raw material in the production of cement, or else to plants for the packaging of concrete. The products resulting from these recovery activities are submitted to strict controls to ensure compliance with environmental legislation.

The boiler ash and the filtration residues are also sent for recovery by the Group's other waste to energy plants, and in addition ferrous materials are recovered. In 2012, the Group's waste to energy plants sent 90% of the waste produced for recovery. The light coal ash is generally deployed as a mixing component for making concrete, for road under-surfaces or for use as a component in paving. The desulphurization residue can generally be used to replace materials based on calcium or composites. For the recovery of **fume purification dust in waste incineration plants** an experimental project called "COSMOS", described in the see the tables included at the end of the chapter section, is currently in progress.

At the Monfalcone (Gorizia) thermoelectric plant, ash and chalk are produced by the fume purification process. These materials are reused in the concrete and building industries; to this end they are registered under the REACH regulation and have obtained EC product labelling certification. This enables a saving in raw materials to be achieved and avoids the disposal of large quantities of these materials in landfills.

48 Special waste (hazardous and non-hazardous) sent for recovery

Sector of activity	2010	2011	2012
Production of energy and heat (excluding waste to energy)	78%	81%	98%
Waste to energy	72%	76%	90%
Electricity distribution	26%	5%	9%
District heating	0%	15%	65%

Over the past few years legislation on the management of chemicals has taken considerable strides, with a large number of changes being made by European Regulation no. 1907/2006 "REACH" and no. 1272/2008 "CLP". A2A has tackled these issues with timely training measures addressed to users of substances and mixtures at the production plants. From an environmental standpoint, the Group has taken considerable steps to limit the use of chemicals that are potentially harmful for natural ecosystems.

Hydroelectric production is a process that is distinguished by a limited use of chemicals, mainly lubricating substances. To minimise the risk, in any case reduced, of contaminating water courses in the event of accidents or the malfunctioning of hydraulic equipment, **biodegradable oil is used in all of the Group's hydroelectric plants**.

The water used by the thermoelectric plants must have specific chemical and physical features which are obtained by suitable demineralisation systems, namely by chemically "seizing" the ions dissolved in the incoming water. These systems require the use of **hazardous chemicals**, such as hydrochloric acid and caustic soda. A2A has made significant investments to reduce the presence of these substances in the water used for its plants, as described below.

At the Cassano D'Adda (Milan) thermoelectric plant the cation and anion resin demineralisation system with subsequent mixed bed has been replaced by a new reverse osmosis system coupled with electrodeionization (EDI). The new plant consists of three osmosis lines, each having the capacity for producing 15m³/h of demineralised water; in addition to the osmosis lines, the plant has an EDI final stage which enables a high level of water purity to be achieved, which is necessary for the proper use and working of the plants. The production of effluents requiring treatment is limited to the off-line cleaning of the membrane (approximately twice a year). It is estimated that a reduction of approximately 98% in the use of hazardous substances/preparations has been achieved (acids and bases used in the previous demineralisation system).

At the beginning of 2012, the new plant for producing reverse osmosis demineralised water was brought into definitive use at **the Monfalcone (Gorizia) thermoelectric plant**; this reduces the use of hydrochloric acid and caustic soda, drastically reducing the utilisation of substances that are harmful for the people working at the plant and the environmental risk in the event of spillage.

In addition, as the result of the updating of the risk classification of the fuel oil as "very toxic for aquatic organisms", the Monfalcone thermoelectric plant falls under the "Seveso legislation" and all the resulting procedures were carried out in 2012: the competent territorial authorities were notified, the risks of the spillage of fuel oil into the environment were assessed, the risk prevention policy was adopted and a safety report was drawn up. At the end of 2012 the two heavy fuel oil (HFO) fed groups were taken out of service and following the disposal of the heavy fuel oil on March 13, 2013 the plant was officially excluded from the scope of the Seveso legislation.

In all the plants producing energy, an emergency supply of electricity must be guaranteed for specific auxiliary systems. To this end, emergency electrogen groups are in place at the plants, with the respective batteries, which act as continuity groups. As far as the batteries are concerned, new legislation has recently

been passed which requires the availability (close to the sites where they are stocked) of specific absorbent, neutralising materials to be used in the event of a spillage of the liquid they contain (essentially acidic substances). A2A uses a non-toxic, non-polluting ecological product which at the end of its life can be disposed of as non-hazardous waste (provided it has not been used to absorb the hydrolytic solution).

Noise

The A2A Group uses the services of skilled technicians to carry out activities regarding the monitoring, evaluation and mitigation of acoustic emissions for the entire life-cycle of its plants and infrastructures. The frequency of the monitoring depends on the type of plant/infrastructure and the requirements prescribed by the authorisations obtained, as well as the sensitivity of the local area. If residents file a report or make a complaint, A2A carries out specific measurements to assess the actual need for planning and implementing mitigation measures.

The following measures were carried out in 2012 to mitigate the effect of noise:

- steps were taken at the Brescia Nord plant on precise micro-sources and this work will be continued in 2013;
- at the Ponti sul Mincio (Mantua) thermoelectric plant the air compressor serving the water demineralisation plant which feeds the thermoelectric cycle was moved to an underground room to screen off noise emissions and avoid these spreading outside.

As far as magnetic fields are concerned, there are no legislative requirements specifying the need for specific monitoring. Nevertheless, a series of spot measurements were taken close to the perimeter of the plants located in Calabria and the readings were considerably lower than current limits.

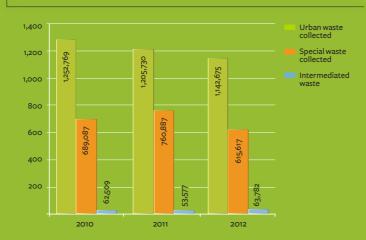


IDENTITY CARD

AT DECEMBER 31, 2012

A2A is a leader in Italy in the environmental sector and manages the whole of the waste collection, recovery and disposal cycle in an integrated manner.

49 Collected, transported and intermediated waste (tonnes)



The decrease in the quantity of waste collected over 2011 is mainly due to the adverse economic and production situation, which has caused a reduction in the production of waste.

50 Treated waste by type of plant (tonnes)



2012

Recovered waste as a proportion of total urban waste collected in provincial capital municipalities increased from 99.7% to 99.9%

The proportion of waste disposed of in landfills fell from 13.6% to 9.6%

The collection of plastic packaging began in Bergamo (see the caption on page 88)

The collection of wet waste started up in Milan (see the caption on page 87)

All the numbers are in the attachment from page 99 to page 118

4.3.1 Integrated waste cycle

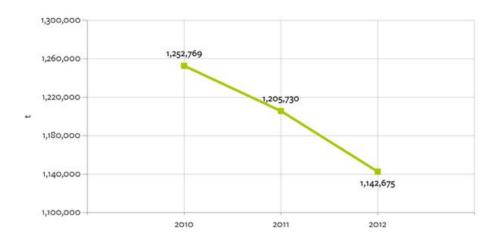
The A2A Group is the **leader in the environmental sector in Italy**. As part of waste management it provides service which include the following: the collection, transportation and intermediation of waste; street sweeping; managing recovery and waste disposal plants. These services are mainly provided in Lombardy, in the provinces of Milan, Bergamo, Brescia, Como, Mantua, Milan, Pavia and Varese, and in Campania, where the subsidiary Partenope Ambiente manages the plants at Acerra and Caivano in the province of Naples.

Through the subsidiary Ecodeco the Group also designs and constructs plants for treating, enhancing and disposing of waste, both on its own behalf and on the behalf of the third party customers to whom it transfers its technological and innovative solutions.

The Group companies in the Environment Sector work for municipal administrations and private companies. They perform their work with skilled competence, which is directed towards the constant improvement of service quality, safety and the protection of the environment by seeking out new technologies designed to optimise the use of waste as a resource.

In 2012 the companies of the Environment Sector collected 1,142,675 tonnes of urban waste.

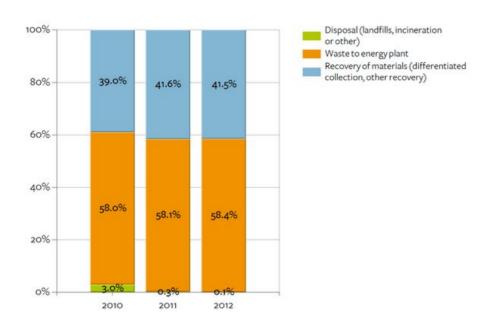
51 Urban waste collected - including that collected by third parties (tonnes)



The reason for the decrease in the quantity collected over 2011 is to be found in the adverse economic and production situation which has led to a reduction of approximately 5% in the production of waste.

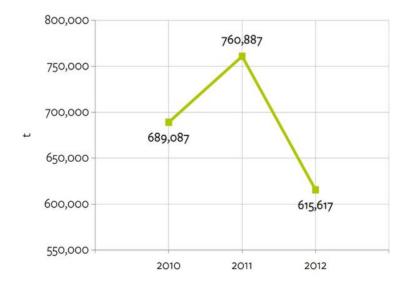
The following graph shows the end destination of the urban waste collected in provincial capitals and indicates an almost constant trend over the three-year period.

52 Destination (recovery/storage) of the urban waste collected by the Group in provincial capitals



Over 615,617 tonnes of hazardous and non-hazardous special waste were collected and transported during the year. The service for the collection and transportation of non-hazardous special waste is mainly directed to craftwork and industrial activities. Hazardous special waste is collected from both public (hospitals, clinics, etc.) and private users (dentists, car workshops, laundries, etc.).

53 Special waste collected - including that collected by third parties (tonnes)



There was also a fall in special waste over 2011, affected, as in the case of urban waste, by the effects of the economic recession, which led to a reversal of the trend with a decrease of approximately 19% in waste

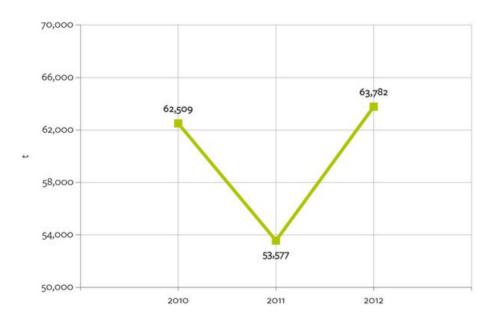
produced by businesses.

The collection and transportation of both urban and special waste is carried out by Group companies in the Environment Sector using a fleet of vehicles equipped for the various service needs.

The A2A Group had a total of 1,872 vehicles in its fleet in 2012.

In order to carry out certain waste management services the companies of the Environment Sector, using their skills in this area, provide their customers with a service which ensures that their waste is entrusted to authorised shippers and plants. In this case, the companies of the Environment Sector, assuming a role as an **intermediary**, avail themselves of third parties who provide this service by taking care of the various stages of collection, transport and delivery to the destination plants, in full compliance with current legislation.

54 Special waste intermediated - transport and treatment carried out by third parties *(tonnes)*



The Group's plants enable waste treatment and disposal to be managed with the aim of reaching three objectives: - material recovery, energy recovery and final disposal - by using the following types of plant:

55 The A2A Group's waste disposal and recovery plants

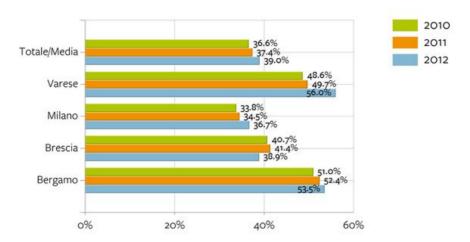
Type of plants	Number of plants
Landfills	15 (of which 5 in post operational management)
Biogas enhancement plants at landfills	10
Waste treatment platforms	3
ITSs (Intelligent Transfer Stations) - Biodessication	2
ITSs – Biodessication and RDF (Refuse Derived Fuel)/ SSF (Secondary Solid Fuel) production	3
RDF/SSF production plants	1
Composting plants	2
Sludge recovery plants	1
Urban and special waste storage plants	2
Inertisation plants	1
Waste washing plants	2
Glass enhancement plants	1
Ecological islands/collection centres	42
Mechanical selection plants	1
Waste to energy plants or cogeneration plants with heat recovery	3
Waste to energy plants with simple electricity production	4

4.3.2 Efficiency of the integrated waste management service

The collection of urban waste managed by Group companies envisages the **differentiated collection of all the various fractions** (paper, glass, plastic, organic, garden cuttings, etc.) by different means, depending on the needs of the municipalities served. In many Lombardy municipalities (including the cities of Bergamo, Brescia, Milan and Varese) A2A performs the entire urban waste and street sweeping service, while in others it only provides a partial service.

The A2A Group's Environment Sector companies **support municipal administrations in reaching their differentiated collection objectives**, not only by means of a precise planning and management of the collection service, which can also include information and awareness campaigns for residents, but also by directing its decisions from a technical, economic and environmental standpoint, considering the best possible destination for the waste and exploiting any opportunities for recovering materials and energy.

56 Percentage of differentiated collection* in the municipalities of Bergamo, Brescia, Milan and Varese



^{*}The figures only relate to the provincial capitals; the quantity collected and the differentiated collection index are calculated in accordance with the recommendations of the Lombardy region

The reasons for the changes in the differentiated collection index in the provincial capitals are described as follows.

In **Bergamo** the increase is due to the introduction in June 2012 of the differentiated collection of the organic fraction at non-domestic users in a part of the city which up until that moment was not served by that type of collection, and to the introduction in November 2012 of the collection of plastic packaging (up until then collected by means of the ecological platform) in the outer belt of the city.

In **Brescia** the reason for the fall is mainly to be found in the decrease of the quantity of packaging collected due to the continuation of the negative economic situation, which has hit retailers and craft workers in the municipality. The drop was also caused by the setting up of a used tyre consortium which has created its own collection circuit.

In **Milan** the rise is mostly due to the starting up in November 2012 of house-to-house collection of organic waste in one of the city's four quarters, and the introduction in May 2012 of transparent bags for undifferentiated waste which discourages people from throwing away potentially recyclable waste.

In **Varese** the increase is due to a large extent to the results of the information campaign "Varese, make the difference" which gave very positive results (*see caption*).

The A2A Group also collaborates with the municipal administrations in identifying and testing measures designed to optimise differentiated collection and reduce the production of urban waste or prevent it altogether. The case of the introduction of bins with electronic keys is interesting in this respect; this has led to surprising results in the improvement of waste collection. Among other virtuous examples should be noted a number of significant projects carried out by Group companies in Bergamo, Milan and Varese in 2012 (illustrated in the dedicated captions).

DIFFERENTIATED COLLECTION IS IN SEVENTH HEAVEN WITH BINS WITH ELECTRONIC KEYS!

Over the past few years municipal administrations have asked operators to activate mostly domestic urban waste collection systems in the conviction that only by "door to door" collection is it possible to arrive at the differentiated collection percentages set by law.

With the aim of identifying a valid alternative method, Aprica has tested a non-differentiated waste collection system in certain municipalities in the province of Brescia which envisages a top loading bin that can be opened with an **electronic key** and is capable of recording the number of accesses made to the bins, linking this figure to the individual resident users. Residents are therefore "encouraged" to use the bins less often, thus improving their differentiated collection. As a result of the change made to the undifferentiated waste collection service, which began in 2010 in Capriano del Colle, the first municipality in Lombardy to pass over to the bin with a "pillar box", several other municipal administrations opted for this model in 2012. Aprica therefore initiated a series of information campaigns (preparing graphic materials and holding meetings with domestic and non-domestic users and the schools) directed at all users in the following municipalities: Acquangera sul Chiese, Bovezzo, Castenedolo, Cavriana, Gavardo, Rodengo Saiano, Roè Volciano and Villanuova sul Clisi, covering a total of 57,192 residents and 27,283 households. As confirmation of the quality of this technology, the municipalities of Capriano del Colle (which passed to the new bins in August 2012) and Borgosatollo (which passed over in March 2011) have increased the proportion of differentiated waste collected to 68.88% and 70.87% respectively, with rises of over 25% compared to the previous year (data from the Provincial Waste Observatory).

THE COLLECTION OF WET WASTE GETS OFF THE GROUND IN MILAN WITH AMSA

In order to increase and improve the management of recyclable waste, on November 26, 2012 the Municipality of Milan started separate collection of the wet fraction of waste from **domestic households, involving around a quarter of the city**, with the planned extension of the service to the whole of Milan by the end of 2014. To make collection easier, Amsa provides each family with a free container, which is to be kept in the house, together with a set of instructions about how to separate wet waste properly. This operation was preceded by despatching two letters to residents and condominium administrators in the area concerned and pinning notices in porters' lodges. In addition, households also received a "*Guide to differentiated collection*" and a pamphlet containing a list over more than 100 of the most common materials and details of the bag or container into which they should be thrown away. The guide and the pamphlet, which have also been **translated into the languages most widely used in Milan** (Arabic, Chinese, Sinhalese, French, English, Romanian, Spanish, Ukrainian) and which are also available in audio for the sightless and vision-impaired, may be consulted on and downloaded from the Amsa website.



In December 2012, just three weeks after starting, the results were very positive: more than one kilogram of wet waste per week per resident, equal to approximately 57 kg/year.

COLLECTION OF PLASTIC PACKAGING IN BERGAMO

On the recommendation of the municipal administration, in November 2012 Aprica began collecting plastic packaging in Bergamo. This new service consists of increasing the proportion of differentiated collection in the city, with significant benefits for the environment. An information letter was sent to all the households of the areas concerned accompanied by a pamphlet (also printed in Arabic, Chinese, English, Romanian, Spanish and Ukrainian for the benefit of the non-Italian communities living in the area) containing details and advice on the way in which plastic packaging should be thrown away. This initiative was also carried out thanks to the collaboration and contribution of Corepla, the national consortium for the collection, recycling and recovery of plastic packaging waste.

VARESE IS AIMING AT 65% WITH DIFFERENTIATED COLLECTION

The second stage of the campaign which is being conducted by Aspem, the A2A Group company which provides a waste collection and disposal service in the area covered by the provincial capital and other nearby municipalities, and which is endorsed by the Municipality of Varese, began in February 2012. Under the slogan "Varese, make the difference" the residents of the city were urged to get involved in providing a contribution to reaching the European Union target of 65% of differentiated collection by the end of 2012. The awareness campaign consists in sending information material to all residents and a specific notice to condominium administrators, shops and other retailers, city centre residents and non-Italian families.

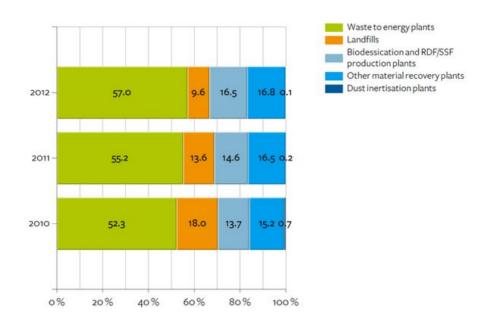
BRESCIA: LET'S REDUCE WASTE IN THE CITY

As part of the "Let's reduce waste in the city" project, the environmental awareness initiative in which the city of Brescia has been involved for several years, the "Paper reduction in offices" project got under way in 2012. This is a measure which has involved the Brescia City Police, Aprica's offices in Via Codignole in Brescia and the company "Kiko" of the Percassi group in Bergamo. Workgroups have been set up in each entity which are coordinated by a team leader, and members of these then took back the best practices for reducing the use of paper to their own individual area. The supply of stationery and printing paper as a ratio of the employees served was used as an indicator to measure the results obtained.

Waste collected by differentiation is sent to material recovery plants which process it and transform it into material that can be reused as a substitute for the original. The residue that remains after processing is only a small proportion compared to the material recovered as a whole.

The A2A Group processed and disposed of a total of approximately 2.6 million tonnes of waste in 2012. The reason for the fall over 2011 is to be found in the adverse economic situation. As can be seen from the following graph, the percentage of waste recovered increased, while that disposed of in landfills decreased.

57 Waste processed by the Group's plants by type of plant



All the recyclable waste collected in 2012 by differentiated means was sent for recovery, obtaining four results at the same time which are important for environmental purposes: a considerable saving in raw materials, a reduction in the energy used in the production process for the materials, the resulting decrease in the environmental effects connected with the production and a fall in the volume of waste disposed of in landfills.

A2A carries out a number of activities for recovering material from waste:

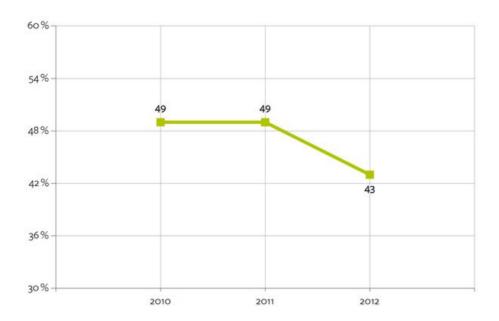
- the recovery of glass, paper and cardboard, plastic, wood, unusable tyres, ferrous materials, etc. mainly by selecting waste obtained through differentiated collection, bulky waste and non-differentiated waste;
- the recovery of sludge coming from the biological purification of the various waters, used for agricultural purposes;
- the recovery of inert materials, sand and gravel, certified in accordance with UNI standards, for use in the building sector, by treating and washing street sweeping dirt;
- the production of fuel to be used in waste to energy plants, through mechanical selection processes and the biodessication of non-differentiated urban waste;
- the treatment of solid residues arising from the burning of the waste and ashes of the waste to energy plants through recovery and inertisation operations.

The A2A Group currently has two waste washing plants for material recovery, meaning EC certified inert material (in three different granulometries: sand , gravel and shingle) which can be used directly as raw materials, for example in the preparation of cement or bituminous conglomerates, in the preparation of road foundations, etc..

Tone of the plants is located in Brescia, which in 2012 doubled its authorised potential from 29,500 to 60,000 tonnes/year (as the result of important technological modernisation), and one in Milan, run by Amsa.

The following graph provides details of the raw materials/incoming waste indicator, which shows the high level of efficiency of the dirt washing plants.

58 Raw materials produced as a percentage of incoming waste

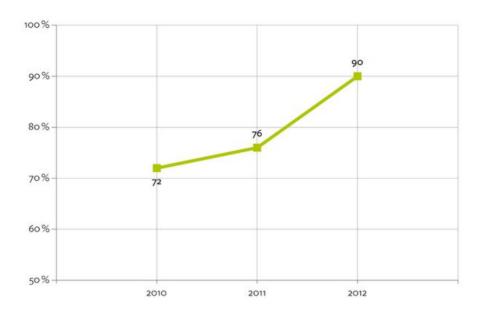


The variability of the figures is the result of the varying types of incoming waste.

As part of the waste integration system, the waste that cannot be usefully recycled in terms of materials is used as fuel for producing energy by means of a waste to energy process in order to feed the district heating networks in Brescia, Bergamo and Milan and produce electricity, thus saving on traditional fuels.

A significant portion of residues arising from the combustion process in the waste to energy plants is further enhanced by being sent for material recovery as the following graph shows, in which an increase over the three year period can be seen.

59 Proportion of waste produced by the waste energy process and sent for recovery



Besides the efficiency of the plants, the main factor contributing to the calculation of the energy performance of the waste to energy plants is the saving in fossil fuels obtained as the result of burning the waste, meaning the use of materials of plant origin or in any case discarded and not otherwise usable. This saving is expressed in saved tonnes of oil equivalent (toe): the figures for this indicator can be found in the section "Efficiency in energy production" (page 68).

A fundamental role in the integrated waste cycle is played by the controlled landfill which is necessary for "segregating" the waste which cannot be enhanced any further. The companies of the Group's Environment Sector own and/or manage non-hazardous and hazardous urban and special waste landfills.

A number of the Group's landfills have come to the end of the waste disposal stage and, after carrying out waterproofing and environmental restoration through grass seeding and plant laying, find themselves in the post-operative management stage. During this period the perculate that is formed from the drainage of the waste caused by rainwater is collected and/or treated and/or disposed of, and the biogas produced by the biological decomposition of the deposited waste is captured (and where possible recovered for energy purposes).

BIOASE AT THE DISPOSAL OF THE PROVINCE OF SONDRIO

The new BIOASE ITS (the Intelligent Transfer Station for treating domestic waste) was opened at Cedrasco (Sondrio) in September 2012; this company is owned by Ecodeco, Amsa and SECAM (the environment company in the province of Sondrio). Consistent with the provincial plan for integrated waste management, this plant enables waste to be treated close to where it is produced through the use of an existing energy enhancement plant to make the management of the integrated waste cycle perfectly sustainable from both an economic and environmental standpoint. BIOASE will be in charge of the plant and the energy enhancement of the biodessicate produced from the residual waste of the differentiated collection for a period of 20 years. The plant has a planned capacity of 45,000 tonnes/year of Solid Urban Waste (SUW) and uses the Biocubi process, patented by Ecodeco for enhancing the residual fraction of urban waste. The process uses the energy from the rapidly degradable component of the waste to heat, sanitize and biodessicate the other components that can be recovered. The biodessicated material that is obtained is odourless, sanitized, easily transportable, storable and suitable for energy enhancement.

4.3.3 Managing the environmental aspects

The environmental aspects connected with the collection and transport of waste mainly relate to the consumption of fuel for motor vehicles and the emissions resulting from the use of diesel, petrol and methane driven vehicles. Light, electricity driven vehicles are also used for certain street sweeping services. Trends in fuel consumption are shown in the following table.

60 Fuel consumption for waste collection and sweeping vehicles

тл	2010	2011	2012
Electricity	0.2	0.2	0.1
Methane	107	111	95
Diesel	307	324	318
Petrol	2.9	3.9	3.7

The above table shows that there has been a fall in fuel usage, in part due to the conversion to methane of the vehicle fleet and in part to the turnover of vehicles and the resulting new classifications having a lower environmental impact. (Euro 5).

The policy of the companies in the Environmental Sector is to reduce the emissions from waste transporting vehicles and this is being carried out in various ways such as the following:

- the use of technologies designed to reduce emissions;
- the preventive and corrective maintenance on all the vehicles subject to the required legal testing and control;
- the passage from vehicles driven by diesel to those driven by methane or low emission diesel (Euro 4 and Euro 5), whose percentage reaches 37.6% of the total vehicle fleet used for collection.

RENEWAL OF THE APRICA VEHICLE FLEET

In 2012 Aprica continued with its revision of its vehicle fleet, passing from diesel driven to methane driven vehicles used to collected waste (crushers and lorries used for transporting containers), which travel every day on the roads of the local areas served, with latest generation methane vehicles. The aim is to achieve a greater protection of the environment by reducing the residual noise and considerably decreasing emissions. In addition, a number of heavy vehicles are equipped with satellite tracking systems which are used to locate the geographical position of the bins and optimise the service; a tender was also held in 2012 to extend this possibility to a large part of the remaining vehicles in 2013.

NEW ANTI-PARTICLE FILTERS TO BE INSTALLED IN HEAVY VEHICLES

Tests were carried out in 2012 on a large-scale waste crusher through a multi-year collaboration relationship with the Ispra Joint Research Centre (Varese), in order to assess the efficiency of a new mechanical filter that is capable of capturing up to 97% of the particles emitted. The vehicle with the experimental system underwent gas emission tests, which enabled the validity of the solution to be confirmed as a figure of approximately 97% of captured dust was obtained without impairing the efficiency of the vehicle.

THE ECOGUIDA PROJECT FOR A WAY OF DRIVING THAT IS SAFE AND RESPECTFUL OF THE ENVIRONMENT

In order to reduce the consumption of fuel and harmful emissions and to make drivers' behave more responsibly, Amsa has initiated a pilot project with the company Teleparking which owns a system called DST (Driving Style Tools) which is capable of affecting the way in which drivers drive and as a consequence of reducing emissions and the consumption of fuel. The innovation consists in shifting attention from the vehicle to the person, affecting the way of driving in a non-coercive way. Hardware consisting of sensors able to monitor the dynamics of the vehicle (acceleration, braking, skidding, speed) is installed in the vehicle together with a software application developed by Milan Polytechnic which is capable of calculating what should be the "ideal" journey almost in real time. A mobile phone is also situated in the cabin through which the GPS system transfers two indicators to the driver: the safety index and the eco index. The project lasted for 12 weeks and enabled the eco index to be improved by two percentage points and the safety index by four percentage points, while the overall index consisting of these two indices together improved by approximately ten percentage points.

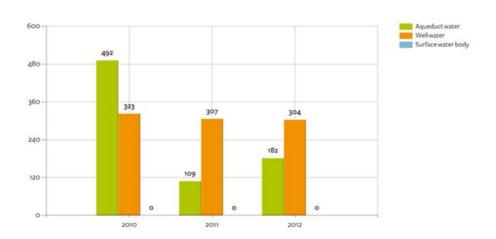
As far as the "atmospheric emissions" environmental aspect is concerned, the emissions having the greatest effect for the treatment/disposal plants, excluding the waste to energy plants whose main effects were discussed in the previous paragraph, were the greenhouse gas emissions, whose main contribution is given by the emission of methane from the biogas dispersed in the landfills.

The methanisation processes which take place at the landfills have a role in determining the mineralisation of the waste and the resulting stabilisation of the waste itself. In order to reduce the quantity of biogas dispersed into the atmosphere, also in a significant manner, landfills are equipped with biogas capitation networks which are used by engines to produce electricity. In the absence of energy recovery, or if there is a stoppage at the plant, the captured biogas is burned off in a flame. In 2012 the quantity of biogas dispersed in the Group's landfills amounted to approximately 2 thousand tonnes.

Another environmental aspect linked to the plants for treating/disposing of waste is the use of water: water supply for the various activities is ensured by the extraction of water from both aqueducts and wells as it is not taken from surface water bodies.

The following graph shows trends in water consumption for the past three years:

61 Water consumption (thousands of m³)



In order to reduce water usage, washing water in the dirt treatment plants is cleansed in the plant and

recycles within the process, thus minimising consumption.

In addition, improvement measures have been carried out at a number of Ecodeco plants regarding the management of rainwater, which has enabled a reduction in water discharges to be achieved together with an improvement in the quality of these discharges and its reuse in waste treatment processes, with the resulting reduction in well water pumping (e.g. for a sludge treatment plant).

RECOVERY OF HEAT FROM THE SANITISATION OF SLUDGE

In 2012 Ecodeco built a system at the Corteolona site for circulating the biological sludge from the relative storage tank to the heat exchanger, enabling the thermal energy available from the biogas combustion process to be exploited for sanitising the sludge and consequently reducing the use of ammonia.

On the question of "noise", a number of measures were carried at Aprica's Castenedolo Platform (Brescia) in 2012 to reduce noise by soundproofing the waste crushers and the breather plant serving the various working areas.



IDENTITY CARD

AT DECEMBER 31, 2012

A2A uses 262 wells and 198 springs to source the water it disperses

Over 4,700 kilometres of distribution network for drinking water and 74 million m^3 of water supplied

51 million m³ of waste water treated in 60 purifiers

62 Environmental indicators for the supply and distribution service

	2010	2011	2012
Analysis per m³ of water supplied (n°/Mm³)	2,026	2,219	2,432
Network losses	24.90%	27.20%	28.10%
Provision (usage) - Litres/inhabitant/day	275	257	250

10012 2012

Controls conducted on water increased by 10% to reach 2,432 analysed parameters per million cubic meters disbursed

Waterproofing measures to make the new drinking water plant for the Luvinate (Varese) source safe

63 Environmental indicators for the collection and purification service

	2010	2011	2012
Removal yield - COD	87%	92%	94%
Removal yield - BOD	92%	95%	97%
Removal yield - Nitrogen	62%	69%	67%
Removal yield - Phosphorous	75%	75%	73%

4.4.1 The integrated water service

The integrated water service consists of the activities of capitation, transportation and distribution of water for civil use, sewage water and waste water. A2A Cicolo Idrico and ASPEM carry out their activities as part of the integrated water cycle in the provinces of Brescia and Varese, responding efficiently to service supply needs and ensuring respect for and protection of the water resource while complying with national legislation.

The supply of drinking water to the end customer is the final stage in the aqueduct management cycle: A2A governs this service and the related activities of water supply from wells and springs and the treatment of water. In 2012 a total of 108 municipalities were reached by the integrated water service of the provinces of Brescia and Varese.

The main springs acting as a source for the drinking water supply were the Mompiano spring in the province of Brescia, with an average flow of 100-150 l/s, and the Cogozzo di Villa Carcina spring having an average flow of 55 l/s.

In the Varese area, the main water sources are the Valle Bevera spring, with an average flow of 250 l/s, and the Luvinate spring, having an average flow of 100 l/s.

Water supply is guaranteed by a total of 262 wells and 198 springs.

64 Water supply in Brescia and Varese

Geographical area	Municipalities served	Wells	Springs
Brescia	1	47	3
Brescia - province	73	128	151
Varese	3	18	9
Varese - province	31	69	35
Total	108	262	198

The total amount of water extracted from wells and springs in 2012 amounted to just under 117 million m³.

The collection, catchment and treatment of waste water is managed by A2A's sewage and purification service solely in the province of Brescia. At the purification plants the water is submitted to a process of eliminating pollutants, mainly by biological means, in order to give them qualitative characteristics compatible with safeguarding the environment, where they are then returned.

In 2012 the catchment and sewage service collected water from a total of 91 purifiers, of which 51 are active sludge purification plants and 32 Imhoff tanks as identified in the S.I.Re (Regional Computer System pursuant to the regional government decree of December 28, 2012 "Directive for the control of discharges from urban waste water treatment plants as amended), all situated in the province of Brescia, for a total of approximately 51 million m³ treated. The main and most modern purifier is that to be found in the provincial capital and further details of this may be found in the caption "The Verziano purifier".

4.4.2 Managing the environmental aspects

The capitation of water leads, especially in the case of pumping up water from wells, to a significant **consumption of electricity** for powering the plants. As things presently stand, water is to a large extent procured from wells, and in this case minimising consumption passes by way of the use of **high energy efficiency pumps**, usually regulated by inverters which adjust the flow to the actual need of the distribution network.

Monitoring water is a considerably important point for protecting underground waters. **There was an increase of 10% over the previous year in the controls carried out in 2012, reaching 2,432 parameters analysed per million m³ supplied**. In order to ensure compliance with the limits and the qualitative requirements making the water fit for human consumption, before being distributed to users the water drawn from wells is subjected to a specific disinfection and potabilisation treatment of a chemical, physical and biological nature.

In 2012, following a number of notifications ascertaining hydrocarbon contamination (without legal limits being exceeded) at the Luvinate (Varese) source, waterproofing measures were carried out to make the spring safe. The water extracted is now submitted to filtration through active carbon to ensure sanitary and qualitative safety. The equipment that has been built consists of four carbon filters fed by a new accumulation tank connected to a pumping plant with a flow of 100 l/s.

The efficiency of the purification of the waste water is ensured by careful management of the process, aimed at optimising the activity of the bacteria responsible for digesting the organic substance and reducing the concentration of pollutants. The flows adopted for the purification stage are characterised by a high level of qualitative and quantitative variability which is dependant on a differentiation in human activities and on a significant variation in water usage throughout the day, on different days of the month and in the different months of the year.

If not properly controlled this variability could hamper the optimisation of the purification activity performed by the bacteria and the reduction of pollutant content. To avoid this problem occurring and in order to seek the highest levels of purification efficiency, increasing use is being made of equalisation tanks which enable the qualitative features of the sludge to be made homogeneous and which make the quantities of waste water sent to the biological stages constant.

THE VERZIANO PURIFIER IS ONE OF THE WORLD LEADERS THROUGH THE USE OF MBR TECHNOLOGY

The waste water of the municipalities of Brescia, Collebeato, Bovezzo, Cellatica, Gussago, Rezzato and a part of those of Castenedolo and Roncadelle flow into the Verziano purification plant which is situated on the southern outskirts of Brescia. The plant consists of three parallel treatment lines which are capable of processing a total of up to 90 million litres of water a day, for a population of approximately 250,000 people. The waste water is purified using an active sludge method, which exploits the potential of a series of micro-organisms which are capable of using the pollutants to be found in the sewage sludge for their metabolic activities and for reproduction. The biological oxidisation process, which takes place in the active sludge reactor, is followed by the separation of the mud flakes from the purified effluent.

MBR (Membrane Bio Reactor) technology has been used on one of the three lines at the Verziano purification plant since 2001 for the pressure driven ultrafiltration treatment of civil waste water, replacing the secondary sedimenter. The purification line using this technology treats more than 50% of the flows that arrive at the plant and has led to a series of benefits in terms of purification yield, usage of chemical additives and economic commitment. The use of an MBR system, in fact, enables cellular concentrations of sludge to be held in the oxidisation reactors which are higher than those of traditional purification lines, and allows the sensitivity to changes in load and the dependence of purification yield on the sedimentability features of the flakes to be reduced. This results in a containment of the volumes in the oxidisation tanks, with a significant reduction in the impact on the environment and the countryside.

The outgoing effluent from the treatment line is characterised by high qualitative levels which derive from the ability of the membrane to withhold the majority of the micro-organisms present, including pathogens. The reduced need for additives, coagulating agents and disinfectants leads additionally to a reduction in the economic commitment required to make the purified water compatible with its reuse in agriculture.

4.5 Tables: the numbers of the environment

4.5.1 Data on activities

Energy production

65 Net electricity produced by type of plant and source - GWh

		2010	2011	2012
Thermoelectric plants	High yield natural gas combined cycle	4,280	4,015	2,600
	Multi-fuel plants	1,927	1,614	2,230
	Waste to energy (including biogas)	568	572	529
Cogeneration plants	Multi-fuel plants	272	286	300
	Waste to energy (including biogas)	575	602	586
Hydroelectric plants		3,291	3,048	2,626
Photovoltaic plants		<1	<1	<1
Total		10,913	10,137	8,870

66 Net thermal energy produced by type of plant and source - GWh

		2010	2011	2012
Cogeneration and heat recovery plants	Fossil fuels	733	717	752
	Waste to energy	916	906	1,031
Thermal plants	Boilers	481	395	431
	Heat pumps	4	48	57
	Waste to energy (biogas)	1	1	3
Total		2,135	2,067	2,274

67 Percentage of electricity produced analysed by source

	2010	2011	2012
Renewable sources (renewable fraction of waste*, solar)	36.5%	36.7%	35.9%
Coal	16.0%	15.5%	25.6%
Natural gas	40.8%	41.2%	31.6%
Oil products	1.5%	0.9%	0.7%
Nuclear	0%	0%	0%
Non-renewable fraction of waste	5.2%	5.7%	6.2%

^{*}It has been assumed that there is a renewable fraction of 51% for non-hazardous waste (ref. Decree of the Ministry for Economic Development of December 18, 2008). As a consequence the non-renewable fraction has been taken as 49 %.

68 Energy produced from waste to energy*

	2010	2011	2012
Thermal energy from waste to energy	42.9%	43.9%	45.5%
Electricity from waste to energy	11.4%	12.4%	12.6%

 $[\]hbox{*Energy produced by waste to energy plants and biogas plants as a percentage of the total energy produced by the Group.}$

69 Energy performance

	2010	2011	2012
Average thermoelectric power station yield	45.4%	45.7%	42.6%
Yield from high yield natural gas combined cycle plants	51.5%	51.4%	51.3%
Yield from multi-fuel plants	35.0%	34.9%	35.6%
Average cogeneration yield from fossil fuel plants	79.7%	79.2%	78.0%
Average energy saving from fossil fuel cogeneration plants*	18.1%	13.9%	12.0%
Average electricity produced by 1 tonne of waste (Kwh/t)	785	813	819
Average thermal energy produced by 1 tonne of waste (Kwh/t)	580	606	713

^{*}For 2010 this indicator has been calculated by referring to the method described in Resolution no. 42/02 of the Electricity and Gas Authority, and in accordance with the Ministerial Decree of August 4, 2011 for 2011. The figure is an average and is merely indicative.

Energy distribution

70 Electricity, thermal energy and gas put into the grid

	2010	2011	2012
Electricity distributed* (GWh)	11,375	11,489	11,361
Electricity losses in the grid* (GWh)	nd	nd	231
Heating and cooling energy (GWh)	2,167	2,105	2,322
Natural gas** (Mm³)	2,320	2,024	2,197

^{*}Source: Report on Operations 2012.

Integrated waste cycle

71 Waste collected, transported and intermediated

	2010	2011	2012
Urban waste - collected (t)	1,252,769	1,205,730	1,142,675
Special urban waste - collected and transported (t)	689,087	760,887	615,617
Special waste - intermediated (t)	62,509	53,577	63,782
Special waste - recovered	nd	nd	43.6%
Hazardous special waste	nd	nd	7.1%

 $[\]hbox{** Includes gas supplied directly to users by Retragas.}$

72 Differentiated collection*

	2010		2011 2012		2	
	Quantity collected (t)	Index %	Quantity collected (t)	Index %	Quantity collected (t)	Index %
Bergamo	32,581	51.0%	32,938	52.4%	32,821	53.5%
Brescia	57,180	40.7%	56,935	41.4%	50,324	38.9%
Milan	240,413	33.8%	238,662	34.5%	244,237	36.7%
Varese	21,203	48.6%	20,354	49.7%	22,250	56.0%
Total/average	351,377	36.6%	348,889	37.4%	349,632	39.0%

 $^{^*}$ These figures refer only to municipalities that are also provincial capitals; the quantity collected and the differentiated collection index have been calculated on the basis of the recommendations of the Region of Lombardy.

73 Waste treated by the Group's plant by type of plant* - tonnes

	2010	2011	2012
Waste to energy plants	1,563,583	1,541,443	1,468,477
Landfills	539,295	378,657	247,111
Biodessication plants and RDF production	409,966	408,070	425,412
Other material recovery plants	454,296	461,587	433,310
Dust inertisation plants	21,287	4,537	1,913
Total	2,988,427	2,794,295	2,576,223

^{*}All waste entering the Group's plants is considered

Integrated water service

74 Procurement and distribution

Technical data	2010	2011	2012
Wells (n°)	274	255	262
Springs (n°)	298	188	198
Drinking water plants (n°)	58	55	57
Lunghezza rete totale (km)	6,061	4,670	4,709
Water supplied (mln m³)	109	76	74
Water withdrawn (mln m³)	159	118	117
Network losses(*) (mln m³)	40	32	33
Drinkability analysis – samples (n°)	16,760	14,047	14,578
Drinkability analysis – total parameters (n°)	220,829	169,576	180,428

75 Environmental indicators

	2010	2011	2012
Analysis per m ³ of water supplied (n°/Mm³)	2,026	2,219	2,432
Network losses	24.9%	27.2%	28.1%
Provision (usage) - (Litres/resident/day)	275	257	250

76 Collection and purification

Technical data	2010	2011	2012
Sewerage - Network length (km)	2,350	2,080	2,069
Waste water treated (mln m³)	79	55	51
Purifiers (number) (n°)	62	61	59
Loads treated – COD (t)	18,724	14,293	14,775
Loads treated – BOD (t)	8,811	6,744	6,905
Loads treated – Total nitrogen (t)	2,041	1,726	1,558
Loads treated – Total phosphorous (t)	275	216	194

77 Environmental indicators*

	2010	2011	2012
Removal yield - COD	87%	92%	94%
Removal yield - BOD	92%	95%	97%
Removal yield - Nitrogen	62%	69%	67%
Removal yield - Phosphorous	75%	75%	73%

^{*}The change is due to external factors such as the concentration of pollutants on entry, rainfall and air temperature, which affect the biological purifying activity carried out by the bacterial biomass.

4.5.2 Resources

$| \ 78 \$ Resources used for the production of electricity and heat

	2010	2011	2012
Combustibles (TJ)			
Natural gas	34,748	32,789	23,038
Coal	17,822	16,350	23,257
HFO (heavy fuel oil)	1,642	772	474
Diesel	111	130	136
Waste and biomasses	15,136	14,377	13,602
RDF (from external suppliers)	666	1,780	551
RDF (from Group plants)	1,076	357	1,073
Biogas (from Group landfills and purifiers)	665	675	757
Vehicle fuels (TJ)			
Petrol	1.1	1.8	2.3
Diesel	3.4	2.7	3.1
Methane	0.3	0.02	0.7
Electricity (TJ)	518	565	402
Consumed water resource (thousands of m ³)			
From aqueducts	395	503	387
From wells	5,239	6,581	8,214
From surface water bodies	19	22	15
Surface water resource taken for the production of electricity and fully returned to the water body (thousands of m^3)			
Hydroelectric production	3,457,880	3,292,092	2,765,278
Thermoelectric production	746,573	698,425	551,102
Chemical products and materials (t)			
Mineral acids	806	797	494
Additives/water conditioners	231	303	209
Ammonia (solution)	5,274	5,029	4,814
Lime and neutralising solids	39,893	38,964	42,620
Active carbons	868	924	808
Cement, sand and inert materials	2,466	2,534	2,355
Sodium chloride	90	42	19
Technical gases (nitrogen, CO2, hydrogen, oxygen)	230	236	287
Sodium hydroxide (solution)	1,154	913	471
Sodium hydroxide (solution)	12	51	46
Odourisers	0	0	0
Oils and lubricants	80	72	112
Urea (solution)	2,063	2,417	2,541

79 Resources used for electricity distribution

	2010	2011	2012
Vehicle fuels (TJ)			
Petrol	5.7	5.0	4.1
Diesel	5.0	8.3	7.8
Methane	3.5	2.6	2.8
Electricity (TJ)	0	0	0
Consumed water resource (thousands of m ³)			
From aqueducts	350	214	221
From wells	127	163	0
From surface water bodies	0	0	0
Chemical products and materials (t)			
Mineral acids	0	0	0
Additives/water conditioners	0	0	0
Ammonia (solution)	0	0	0
Lime and neutralising solids	0	0	0
Active carbons	0	0	0
Cement, sand and inert materials	0	0	0
Sodium chloride	0	0	0
Technical gases (nitrogen, CO2, hydrogen, oxygen)	0	0	0
Sodium hydroxide (solution)	0	0	0
Methanol, solvents and other products	0	0	0
Odourisers	0	0	0
Oils and lubricants	6.1	2.6	2.1
Urea (solution)	0	0	0

80 Resources used for district heating

	2010	2011	2012
Vehicle fuels (TJ)			
Petrol	0.1	2.5	2.4
Diesel	0.4	1.8	1.7
Methane	0.9	1.7	1.8
Electricity (TJ)	33	29	31
Thermal energy (Tj - purchased externally)	817	780	882
Consumed water resource (thousands of m ³)			
From aqueducts	205	282	468
From wells	0	0	0
From surface water bodies	0	0	0
Chemical products and materials (t)			
Mineral acids	208	256	303
Additives/water conditioners	32	43	75
Ammonia (solution)	0	0	0
Lime and neutralising solids	0	0	0
Active carbons	0	0	0
Cement, sand and inert materials	0	0	0
Sodium chloride	18.4	0	0
Technical gases (nitrogen, CO2, hydrogen, oxygen)	0.1	0.1	0.1
Sodium hydroxide (solution)	113	146	173
Methanol, solvents and other products	3.6	0.1	0.1
Odourisers	0	0	0
Oils and lubricants	0	0	0
Urea (solution)	0	0	0

81 Resources used for gas distribution*

	2010	2011	2012
Combustibles (TJ)			
Natural gas	25	51	48
Vehicle fuels (TJ)			
Petrol	3.3	4.6	4.1
Diesel	11.8	8.7	8.5
Methane	2.2	3.1	3.3
Electricity (TJ)	0.6	2.0	2.4
Consumed water resource (thousands of m ³)			
From aqueducts	0.0	0.5	0.7
From wells	0	0	0
From surface water bodies	0	0	0
Chemical products and materials (t)			
Mineral acids	0	0	0
Additives/water conditioners	0	0	0
Ammonia (solution)	0	0	0
Lime and neutralising solids	0	0	0
Active carbons	0	0	0
Cement, sand and inert materials	0	0	0
Sodium chloride	0.1	0.3	0.2
Technical gases (nitrogen, CO ₂ , hydrogen, oxygen)	0	0.1	0
Sodium hydroxide (solution)	0	0	0
Methanol, solvents and other products	0	0	0
Odourisers	57	55	60
Oils and lubricants	0	0	0
Urea (solution)	0	0	0

^{*} Also included are usage by auxiliary services and self-consumption by the gas reduction cabins of the networks of the Milan area and the Abruzzo area; self consumption by the Group's other distribution networks is excluded.

82 Resources used for the integrated waste cycle

	2010	2011	2012
Combustibles (TJ)			
Natural gas	0	0	0
Diesel	35	28	47
Vehicle fuels - waste collection and sweeping (TJ)			
Petrol	2.9	3.9	3.7
Diesel	307	324	318
Methane	107	111	95
Electricity for vehicles	0.2	0.2	0.1
Electricity (TJ)	84	81	81
Consumed water resource – plants* (thousands of m³)			
From aqueducts	492	166	182
From wells	323	307	304
From surface water bodies	0	0	0
Chemical products and materials (t)			
Mineral acids	2,925	2,217	2,307
Additives/water conditioners	180	232	215
Ammonia (solution)	771	215	455
Lime and neutralising solids	307	418	389
Active carbons	13	22	14
Cement, sand and inert materials	110,418	50,260	59,057
Sodium chloride	1,520	1,640	1,592
Technical gases (nitrogen, CO ₂ , hydrogen, oxygen)	1,036	623	444
Sodium hydroxide (solution)	4,233	3,423	3,774
Methanol, solvents and other products	343	26	25
Odourisers	0	0	0
Oils and lubricants	30	32	31
Urea	0	0	0

 $^{{}^* \}text{The figure for water resources for 2010 also includes the quantity used for urban waste collection and street sweeping.} \\$

83 Resources used in the integrated water service

	2010	2011	2012
Combustibles (TJ)			
Methane	8.7	0.1	0.7
Diesel	< 0.1	< 0.1	< 0.1
Electricity (TJ)	316	293	309
Vehicle fuels (TJ)			
Petrol	0.9	1.9	1.9
Methane	3.2	4.6	5.0
Diesel	2.8	1.0	1.0
Chemicals (t)			
Mineral acids	491.8	372.6	351
Additives/water conditioners	3,976	3,174	4,105
Ammonia solution	0	0	0
Lime and neutralisers	50	33	62
Active carbons	19	62	36
Cement and inert materials	0	0	0
Sodium chloride (common salt)	0	0	0
Technical gases	138	114	29
Sodium hydroxide solution (caustic soda)	0	0	0
Methanol, solvents and other products	1,542	518	618
Odourisers	0	0	0
Oils and lubricants	0	0	2
Urea (solution)	0	0	0

84 Resources used in general services

	2010	2011	2012
Water (thousands of m ³)	264	770	754
Electricity (TJ)	66	105	117
Combustibles (TJ)			
Diesel	3	3	3
Methane	86	92	87
Fuels (TJ)			
Petrol	3	2	2
Methane	5	3	3
Diesel	9	10	11

4.5.3 Air and climate

Atmospheric emissions

85 Total NO_x (nitrogen oxide) emissions from electricity and thermal energy production plants - t/year

		2010	2011	2012
Thermoelectric plants	High yield combined cycle	442	449	289
	Multi-fuel plants	2,793	2,434	3,401
	Waste to energy	392	362	362
Cogeneration plants	Fossil fuels	387	217	223
	Waste to energy	342	325	282
Thermal plants	Fossil fuels (natural gas)	75	55	49
	Waste to energy	<1	2,5	0,8
Total		4,427	3,845	4,606

$86 \, \text{NO}_{x}(\text{nitrogen oxide}) \, \text{emissions during transitory stages} - \textit{t/year}$

		2010	2011	2012
Thermoelectric plants	High yield combined cycle	49	61	51
	Multi-fuel plants	19	17	5

$87\ \ NO_x(nitrogen\ oxide)\ emissions\ from\ other\ plants/networks\ -\ \emph{t/year}$

	2010	2011	2012
Electricity distribution	0	0	0
District heating	0	0	0
Gas distribution	nd	0.8	0.9
Integrated waste cycle	0	5.7	1.6
Water cycle	0	0	0
General services	0	0	0
Total	0	6.5	2.5

88 NO_x emission factors of electricity and thermal energy production plants – g/kWh(e+t)

		2010	2011	2012
Thermoelectric plants	High yield combined cycle	0.10	0.11	0.11
	Multi-fuel plants	1.45	1.51	1.53
	Waste to energy	0.68	0.63	0.68
Cogeneration plants	Fossil fuels	0.39	0.22	0.21
	Waste to energy	0.25	0.22	0.17
Thermal plants	Fossil fuels (natural gas)	0.16	0.14	0.12

89 Total emissions of SO₂ (sulphur dioxide) by electricity and thermal energy production plants – *t/year*

		2010	2011	2012
Thermoelectric plants	High yield combined cycle	0	0	0
	Multi-fuel plants	524	602	810
	Waste to energy	6	3	2
Cogeneration plants	Fossil fuels	241	236	193
	Waste to energy	6	5	1
Thermal plants	Fossil fuels (natural gas)	0	0	0
	Waste to energy	0	0.1	0.2
Totale	•	773	846	1,007

90 SO₂ emissions during transitory stages - t/year

		2010	2011	2012
Thermoelectric plants	High yield combined cycle	0	0	0
	Multi-fuel plants	14	13	4

91 Total SO₂(sulphur dioxide) emissions from other plants/networks - t/year

	2010	2011	2012
Electricity distribution	0	0	0
District heating	0	0	0
Gas distribution	0	0	0
Integrated waste cycle	na	3.8	3
Water cycle	0	0	0
General services	0	0	0
Total	0	3.8	3

92 SO₂ emission factors of energy production plants - g/kWh(e+t)

			2010	2011	2012
Thermoelectric plants	High yield combined cycle	"	0	0	0
	Multi-fuel plants		0.27	0.37	0.36
	Waste to energy		<0.01	<0.01	<0.01
Cogeneration plants	Fossil fuels		0.31	0.24	0.18
	Waste to energy		<0.01	<0.01	<0.01
Thermal plants	Fossil fuels (natural gas)		0	0	0

93 Total emissions of dust by electricity and thermal energy production plants - t/year

		2010	2011	2012
Thermoelectric plants	High yield combined cycle		0	0
	Multi-fuel plants	102	2 47	67
	Waste to energy	1.9	2	3
Cogeneration plants	Fossil fuels	;	2	2
	Waste to energy	1.0	5 1	1
Thermal plants	Fossil fuels (natural gas)	(0	0
	Waste to energy	(0	0
Total		109	52	73

94 Emissions of dust during transitory stages - t/year

		2010	2011	2012
Thermoelectric plants	High yield combined cycle	0	0	0
	Multi-fuel plants	1.6	1.4	0.5

95 Total emissions of dust by other plants/networks - t/year

	2010	2011	2012
Electricity distribution	0	0	0
District heating	0	0	0
Gas distribution	0	0	0
Integrated waste cycle	0.3	0.6	0.7
Water cycle	0	0	0
General services	0	0	0
Total	0.3	0.6	0.7

96 Dust emission factors of energy production plants - g/kWh(e+t)

		2010	2011	2012
Thermoelectric plants	High yield combined cycle	0	0	0
	Multi-fuel plants	0.05	0.03	0.03
	Waste to energy	<0.01	<0.01	<0.01
Cogeneration plants	Fossil fuels	<0.01	<0.01	<0.01
	Waste to energy	<0.01	<0.01	<0.01
Thermal plants	Fossil fuels (natural gas)	0	0	0

97 Total emissions of CO (carbon monoxide) by electricity and thermal heat production plants – *t/year*

		2010	2011	2012
Thermoelectric plants	High yield combined cycle	7:	90	74
	Multi-fuel plants	18	3 138	76
	Waste to energy	6	3 71	85
Cogeneration plants	Fossil fuels	4	5 52	53
	Waste to energy	9.	82	68
Thermal plants	Fossil fuels (natural gas)	10	9	7
	Waste to energy	:	2 0.1	0.3
Total		48	5 441	364

98 Emissions of CO (carbon monoxide) during transitory stages - t/year

		2010	2011	2012
Thermoelectric plants	High yield combined cycle	108	401	528
	Multi-fuel plants	32	30	9

99 Total emissions of CO (carbon monoxide) by other plants/networks - t/year

	2010	2011	2012
Electricity distribution	0	0	0
District heating	0	0	0
Gas distribution	nd	nd	nd
Integrated waste cycle	0	1.5	0.6
Water cycle	0	0	0
General services	0	0	0
Total	0	1.5	0.6

100 Other polllutants - t/year

	2010	2011	2012
Hydrofluoric acid (HF)	4.3	3.2	8.6
Hydrochloric acid (HCI)	36	53	60
Total organic carbon	23	31	34

101 Dioxines and micro-pollutants - electricity and thermal heat production plants

	2010	2011	2012
Dioxines (gram equivalents)	0.03	0.024	0.014
Other micropollutants (Kg)			
Polychlorinated biphenyls - PCBs	0.163	0.030	0.041
Metals (Sb + As + Pb + Cr + Cu + Mn + Ni + V + Sn)	873	1,495	1,745
Cadmium + Thallium	9.9	12	16
Polycyclic aromatic hydrocarbons	0.25	0.27	0.63
Mercury	22.1	19	6

Direct emissions of greenhouse gases and gases harmful to the ozone layer

102 Total emissions of CO₂ by electricity and thermal heat production plants* – t/year

		2010	2011	2012
Thermoelectric plants	High yield combined cycle	1,657,493	1,556,366	1,009,967
	Multi-fuel plants	1,717,946	1,482,598	2,070,271
	Waste to energy**	499,819	509,321	497,276
Cogeneration plants	Fossil fuels	302,617	312,395	324,153
	Waste to energy**	509,896	362,055	492,357
Thermal plants	Fossil fuels (natural gas)	103,337	86,645	91,436
Process auxiliaries		nd	178	1,150
Total		4,791,109	4,309,558	4,486,610

^{*} The figures do not have relevance for the requirements of Directive 2003/87/EC (Emissions Trading).

 $[\]hbox{** Consists only of the CO2 emitted by the combustion of the non-renewable fraction.}\\$

103 Total emissions of CO₂ by other plants/networks - t/year

	2010	2011	2012
Electricity distribution	0	0	0
District heating	0	0	0
Gas distribution*	1,397	2,872	1,895
Integrated waste cycle	2,595	2,070	3,379
Water cycle	488	6	41
General services	5,050	5,374	5,065
Total	9,531	10,323	10,380

104 Emissions of CO₂ by motor vehicles - t/year

	2010	2011	2012
Production of electricity and heat	355	332	437
Integrated waste cycle (collection and urban hygiene)	29,029	30,579	29,219
Integrated water service	452	474	510
General services	1,192	1,054	1,124
Electricity distribution	971	1,127	1,031
District heating	93	410	399
Gas distribution	1,232	1,150	1,112
Total	33,323	35,126	33,832

105 Other emissions: greenhouse substances harmful to the ozone layer - kg

	2010	2011	2012
Sulphur hexafluoride (SF6)	122	119	287
R134a	360	1,701	4,354
R22 (HCFC22)	80	202	252
R407C	29	150	626
R410A	39	13	238
R427A	183	0	5
R422	0	17	8
Methane (CH4)10 – losses from natural gas distribution networks*	24,475,014	26,623,330	21,138,391
Methane (CH4)11 – from biogas dispersed in the landfill	1,798,034	2,112,659	1,999,163

^{*} Figure calculated as the difference between the amount put into the grid and the amount supplied; where the figure for the amount supplied is not available a loss of 2% has been estimated.

106 CO₂ emission factors of electricity and thermal energy production plants - g/kWh(e+t)

		2010	2011	2012
Thermoelectric plants	High yield combined cycle (natural gas)	387	388	388
	Multi-fuel plants	892	919	929
	Waste to energy	953	890	940
Cogeneration plants	Fossil fuels	306	318	315
	Waste to energy	372	268	359
Thermal plants	Fossil fuels (natural gas)	216	219	212

Indirect emissions of greenhouse gases

107 Indirect emissions of greenhouse gases - Scope 2 - tCO_{2eq}/year

	2010	2011	2012
Production of electricity and heat	59,380	60,661	43,113
Integrated waste cycle (collection and urban hygiene)	9,655	9,237	8,880
Integrated water service	36,304	33,662	34,030
General services	7,579	11,945	12,818
Electricity distribution	0	0	0
District heating	3,783	3,334	3,412
Gas distribution	66	232	227
Total	116,767	119,071	102,479

^{*}Emissions of CO2 relating to electricity purchased by and consumed within A2A (Scope 2); the mix of primary energy sources is the national average; the emission factor indicated in the APAT Italian Greenhouse Inventory Report for 2010 (0.559 t/MWh) has been applied

Global impact indicators

108 Global impact indicators*

	2010	2011	2012
Total emissions of greenhouse gases - Scope 1 (t CO2eq)	5,494,574	5,079,241	5,124,047
Total emissions of gases harmful to the ozone layer (Kg R11eq)	3	7	9
Total acidifying emissions (t SO ₂ eq)	3,889	3,544	4,279

 $^{{}^*\!}T\!hese \, indicators \, include \, the \, contribution \, of \, all \, the \, direct \, pertinent \, emissions \, shown \, in \, the \, previous \, tables.$

4.5.4 Biodiversity

109 Water released for MVF(Minimum Vital Flow) - thousands of m³

	2010	2011	2012
Water released	389,977	390,040	394,925

4.5.5 Discharges and emissions into water

110 Industrial waste water – volumes (thousands of m³)

		2010	2011	2012
Discharged into sewers	Energy production	277	377	303
	of which waste to energy	188	222	185
	Integrated waste cycle	179	147	130
	General services	0	0	0
	Water cycle	0	0	0
	Electricity distribution	179	163	154
	District heating	0.1	0.1	0.3
	Gas distribution	0	1	4
	Total	823	910	777
Discharged into surface water bodies	Energy production	2,187	1,051	1,069
	of which waste to energy	0	0	0
	Integrated waste cycle	2,033	1,614	1,582
	Water cycle	0	0	0
	Electricity distribution	0	0	0
	District heating	0	0	0
	Gas distribution	0	0	0
	Total	4,220	2,664	2,651
Waste water recovered in the production cycle	Energy production	151	157	159
	Integrated waste cycle	226	250	236
	Servizi generali	0	0	0
	Ciclo idrico	0	0	0
	Electricity distribution	0	0	0
	District heating	3	3	3
	Gas distribution	0	0	0
	Total	380	410	398

111 Industrial waste water – polluting discharges into surface water bodies (t)

		2010	2011	2012
Production and distribution of energy	BOD	3	4	6
	COD	15	14	22
of which waste to energy	BOD	0	1	1
	COD	0	0	7
Integrated waste cycle	BOD	19	13	18
	COD	102	93	130
Water cycle	BOD	0	0	0
	COD	0	0	0
Electricity distribution	BOD	0	0	0
	COD	0	0	0
District heating	BOD	0	0	0
	COD	0	0	0
Gas distribution	BOD	0	0	0
	BOD	0	0	0

4.5.6 Waste produced by the Group

112 Non-hazardous special waste - t/year

	2010	2011	2012
Production of energy and heat	315,291	306,387	311,739
of which waste to energy	225,861	211,993	195,759
Integrated waste cycle	209,866	216,133	177,485
Integrated water service	25,122	22,623	20,849
General services	37	61	122
Electricity distribution	194	439	163
District heating	739	193	296
Gas distribution	120	134	443
Total non-hazardous waste produced	551,368	545,971	511,095

113 Hazardous special waste - t/year

	2010	2011	2012
Production of energy and heat	74,641	90,676	93,340
of which waste to energy	74,177	89,878	92,160
Integrated waste cycle	133	179	425
Integrated water service	7	1	3
General services	18	22	47
Electricity distribution	445	277	355
District heating	8	8	11
Gas distribution	6	4	13
Total non-hazardous waste produced	75,258	91,167	94,193
of which PCBs	4	5	0

114 Cross-border hazardous special waste - t/year

	2010	2011	2012	
Hazardous special waste exported - total A2A Group*	N/A	N/A	47,213	

 $[*] Including \, waste from \, treatment \, plants \, (inertisation).$

115 Special waste (hazardous and non-hazardous) sent for recovery

	2010	2011	2012
Production of energy and heat (excluding waste to energy)	78%	81%	98%
Waste to energy	72%	76%	90%
Integrated waste cycle	1%	3%	3%
Integrated water cycle	86%	84%	97%
General services	81%	32%	71%
Electricity distribution	26%	5%	9%
District heating	0%	15%	65%
Gas distribution	96%	59%	20%
Average figure A2A Group*	52%	54%	65%

^{*}See the section "Environmental responsibility - Waste production".

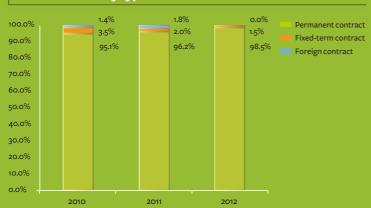


IDENTITY CARD

AT DECEMBER 31, 2012

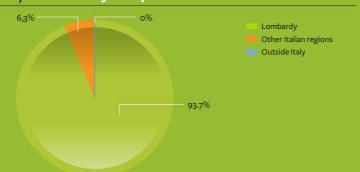
A2A had 8,901 employees at December 31, 2012. The decrease over 211 is mainly due to the change in the consolidation scope of the Group (following the sale of the French subsidiary Coriance). A total of **98.5%** of employees have **permanent employment** contracts (+2.3% over 2011) confirming the use by A2A of a stable contractual formula and the marginal use of flexibility tools for specific emergency situations (extraordinary and temporary peaks of work, seasonality, substitution of workers who are temporarily absent).

| 116 Personnel by type of contract



The Group's main workplace is Lombardy. There was a considerable reduction in the number of personnel abroad in 2012 following the above-mentioned sale.

| 117 Personnel by workplace



Of the total, **9.6%** of employees have a university degree, **45.1%** have a diploma or a professional qualification and **45.3%** have a school leaving certificate. As far as age is concerned, the largest band (40.5% of the total) is that of people between **41 and 50 years of age**, while 37% of employees have been working in A2A for less than 10 years and 10% for more than 30 years.

2012

The Charter for Equal Opportunities and Equality at Work was signed

Accident indices improved in the Energy Sector: -29% in terms of frequency and -50% in terms of severity

Over 123 thousand hours of training given, for an average of 13.9 hours per head (13.2 in 2011)

The internet portal cww. a2a.eu recorded an increase of 21% in the number of visitors and 43% in the number of visits

All the numbers are in the attachment from page 136 to page 145

People represent the main resource for A2A, a resource in which it believes it must invest to build the future. The Group's Code of Ethics sees a person as a bearer of value. To put this principle into practice, a **Human Resources Development System** has been created (as explained in further detail in the section "Development and training") which establishes a growth path over the whole of an employee's working life. A multiplicity of levers, actions and tools guarantee performance appraisal, assessment of potential and training and transverse and horizontal career paths.

Twenty four people were promoted to middle management in 2012 (of whom 8 women), while only 10 people (of whom 2 women) were hired externally, as confirmation of A2A's commitment to encouraging the internal growth of people into positions of increasing complexity and responsibility.

5.1.1 Equal opportunities policy

A2A does not discriminate for any reason whatsoever and is sensitive to equal opportunities issues as regards the selection and management of personnel and the organisation of work.

No employee may be discriminated against for reasons of age, gender, sexuality, race, state of health, nationality, political opinion, religious creed or for any other reason.

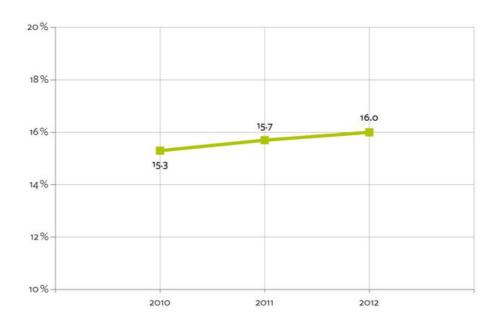
Any breach of this right is considered to be a breach of the Group's Code of Ethics.

In 2012 the Group signed the "Charter for Equal Opportunities and Equality at Work", which supports the fight against discrimination in the workplace. This document was born out of an initiative of a group of European companies and introduced at a national level through a Steering Committee supported by the Ministry of Labour, Health and Social Policies and the Ministry of Equal Opportunities.

By adopting this Charter the Group has undertaken to make a contribution to the enhancement of diversity in its organisation through practical measures which envisage the identification and superseding of all stereotypes associated with gender, age, disability, ethnic origin, religious creed and sexual orientation.

There were 1,421 women working in the Group at December 31, 2012, representing 16% of the total population; these people were mainly white-collar workers (76%) with permanent employment contracts (98%).

118 The female population as a percentage of total personnel



In establishing the type of contract and remuneration, A2A abides scrupulously by Italian legislation, which excludes distinction by gender. There is no difference between the basic wage earned by women and men at the same level, while slight differences, which are gradually diminishing, remain in the average wage at the different category levels.

119 Average wages of women compared to men

Category	2010	2011	2012		
Managers	91.7%	91.6%	98.1%		
Middle managers	98.1%	97.2%	98.0%		
White-collar workers	84.9%	91.3%	91.0%		
Blue-collar workers	86.4%	88.3%	90.0%		

As part of family-work reconciliation the Group has granted 353 part-time jobs (4% of the total for the Group), of which 73% have gone to women. In addition to maternity requirements, applications based on family needs to assist disabled people and people with serious illnesses are considered to have a priority nature.

Parental leave was granted in 477 cases, of which 59% to women. Ninety four per cent of the people granted leave returned to work in 2012.

A2A ensures working rights for the disabled, as required by current legislation; 470 disabled people were employed by the Group in 2012, of whom 23% were women.

In order to recruit persons belonging to protected categories A2A took part in specific events throughout the local area which were organised to encourage getting to know, meeting and identifying possible candidates.

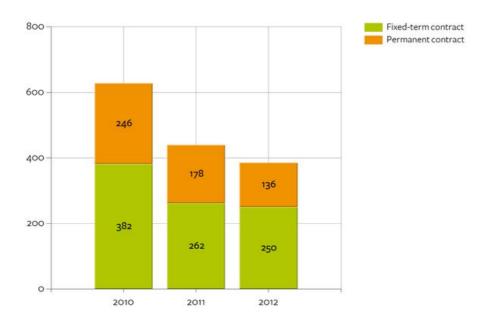
5.1.2 Hiring policies and staff turnover

In accordance with the Organisational, Management and Control Model and the standards of conduct referred to in the Code of Ethics, selection is based on the principles of transparency, propriety and timeliness, which are consistent with the Group's orientation in the sphere of quality, environment and safety.

As far as the **recruitment process** is concerned, A2A uses diagnostic tools which enable it to follow a more targeted selection procedure, one which better responds to the Group's needs. The process was supported by an Employer Branding activity in 2012 designed to consolidate the image and appeal of A2A on the labour market, with specific emphasis being placed on the most representative universities in the local areas with the highest percentage of hiring (Milan and Brescia), where 5 recruiting events such as career days and business presentations were held. In addition, A2A strengthened its use of channels for getting closer to young new graduates and junior professionals by a greater use of social networks (such as LinkedIn for example).

A total of 386 people were **hired** in 2011, of whom 35% on a permanent basis. There were 425 **leavers**, who left mainly to go into retirement, or who came to the end of their fixed-term contract.

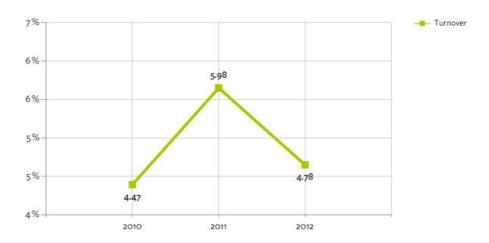
120 Hiring by type of contract



The A2A Group provides **students, new graduates and new high-school leavers** with the possibility of supplementing or completing their course of studies by means of a period of training carried out with the Group that is aimed at obtaining direct contact with the world of work. The way in which **internships** are arranged envisages collaboration with the universities and proposing bodies of the Lombardy provinces by setting up framework agreements. A total of 152 internships began in 2012.

Leaver turnover was 4.78%, a decrease over 2011. The decrease in leavers was mainly due to a fall in the number of staff whose fixed-term contracts in Amsa came to an end, as the result of the reduced use of seasonal contracts for work organisation during the summer months.

121 Turnover rate



There were no collective dismissals in 2012 and as a consequence no specific policies were drawn up to deal with these issues.

5.1.3 Remuneration and incentives

The Group's remuneration policies have been arranged to ensure that employees are positioned correctly in terms of the wages or salary they receive with respect to the work they do, and to appraise their work performance and conduct. To the **fixed remuneration** resulting from the application of the national collective labour agreements are added selective **wage or salary increases** and **specific monetary economic awards**, which for the managerial population are linked to preset annual Group and individual objectives (management by objectives) and for other employees are given as one-off payments in connection with work performance and conduct.

To ensure all the Group's staff are involved, including those in non-managerial positions, the variable remuneration system is supplemented by a collective incentive tool (results bonus) based on profitability and productivity objectives.

Certain **fringe benefits** may also be given, such as by way of example:

- for managerial staff: accident, life and health insurance and the use of a company car;
- for non-managerial staff: meal vouchers/company canteen, discounts and subsidies through the Group Recreational Clubs and additions to the sector supplementary pension scheme.

On induction, in the absence of past working experience, A2A pays men and women the minimum wage or salary established by the applicable national collective labour agreement for the category into which they fall.

Labour costs, net of capitalised costs, totalled 602 million euro for the year ended December 31, 2012 (548 million euro for the year ended December 31, 2011), an increase of 54 million euro.

5.1.4 Worker health and safety

For the A2A Group the prevention of accidents and professional illnesses is an indispensible objective of its business activities, going beyond merely meeting legislative requirements. Each business function is required to comply with the rules of business conduct, which call for scrupulousness in ensuring that each working activity is carried out in accordance with the rules for worker health and safety. The same commitment is required of all the contractors with whom the Group works (see the Suppliers section on page 189).

With a view to ensuring that constant attention is given to these matters, steps continued to be taken for **certification in accordance with standard OHSAS 18001** to encourage the adoption of an increasingly effective and efficient Safety Management System that is capable of ensuring not only that mandatory rules and regulations are followed but also that there is constant improvement, in line with the Group's safety policy objectives. At the end of 2012, 14 Group companies had achieved the certification target.

In addition, the guidelines and procedures designed to identify significant roles in health and safety in the workplace were updated, with the aim of ensuring that there is increased organisational consistency in managing these issues and facilitating the implementation of the Safety Management System in compliance with the legal model in force in every Group company. A similar updating process was also carried out in connection with the Legislative Decree no. 231/2001 Organisational, Management and Control Model.

SIMPLER AND MORE EFFECTIVE RISK ASSESSMENT

In order to improve its suitability as a prevention and protection planning tool in the Group, the Risk Assessment Document (DVR) has been made simpler, shorter and more comprehensible. The main change introduced regards the structure of the Risk Schedules prepared for each task identified in the working environment. These schedules contain information on the activities performed, the substances and equipment used by operators carrying out that task, the specific risks connected with the activities, the protection devices identified and the training requirements needed to be met in order to ensure training for each specific risk. The new structure enables a swift matching to be achieved between the risk schedule and each worker, and using the HRVision personnel data base permits training to be optimised on the basis of the needs of each task.

Testing was carried out in Amsa on a software application for supporting activities on the legislative requirements for the reporting and communicating of accidents to the relative bodies. This testing had a successful outcome and will shortly be extended to other Group companies.

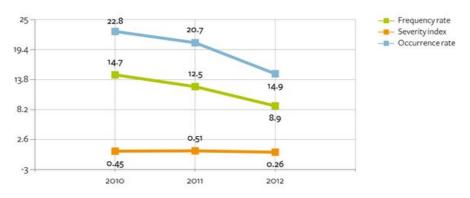
Accident trends

Companies that are similar from a work-risk standpoint have been grouped together into two macro-sectors to make the Group's accident statistics easier to understand and more comparable:

- the **Environment Sector** which consists of the companies operating in the waste cycle: Amsa, Aprica, Ecodeco and subsidiaries and Partenope Ambiente;
- the **Energy Sector** which consists of all the other Group companies, which essentially operate in energy generation and distribution and in the water cycle.

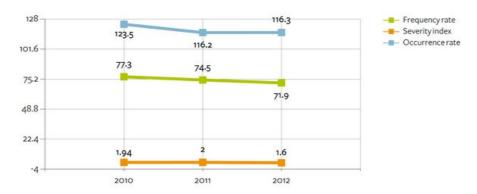
A **general improvement in accidents as a whole** occurred in 2012 compared to the previous year. There was a decrease of 29% in the Energy Sector in the frequency and 50% in the severity of accidents. In the Environment Sector, which is characterised by increased risk due to the high manual content of activities, contact with work equipment and the chaotic surrounding city environment, the reduction was more contained but in any case appreciable: -3% in frequency and -20% in severity.

122 Accident indices* - Energy Sector



^{*}the way in which accident indices has been calculated is explained on page 140

123 Accident indices* - Environment Sector



^{*} the way in which accident indices has been calculated is explained on page 140

Safety training

In order to comply to the utmost with the requirements of the State-Regions Agreement of December 21, 2011 on the training of workers and the State-Regions Agreement of February 22, 2012 on the training of users of equipment, an analysis was carried out of the training provided to each employee until December 31, 2011, concentrating attention on the respective roles, positions and activities of the people involved, in order to obtain an exhaustive list of training and updating needs. This information, which was entered into the personnel management database, enabled courses to be given which were fully consistent with the training identified and allowed a timetable for mandatory security training to be drawn up.

PARTENOPE AMBIENTE FOR WORKER HEALTH AND SAFETY

In conjunction with the Faculty of Medicine and Surgery of the Department of Preventive Medical Sciences at the Federico II University in Naples, Partenope Ambiente has initiated a survey into the awareness level of students on the subject of health and safety in the workplace. The aim of this survey, which is still in progress, is to identify any areas for improvement in promoting awareness and training. The questionnaire used, given on a no-names basis to 130 workers in 2012 and currently being sent to the remaining employee population, was an awareness tool in itself, as the importance of safety issues was stressed during the launch of the project, causing employees to think very carefully about the matter.

With regard to Presidential Decree no. 177/11 (containing the requirement for training and respective updating), which became effective on November 23, 2011, a structural training path was introduced in 2012 for people working in "confined" spaces and environments (meaning spaces not used by workers on a continuous basis, with restricted openings for entry and exit and unfavourable natural ventilation and the possibility that polluting/inflammable substances may accumulate or with an atmosphere short of oxygen). The course consists of theoretical training together with specific practical exercises and details about how to manage emergencies. This measure, which will continue in 2013, consisted of 552 attendances in the various modules (481 people), for a total of 4,195 training hours.

A total of **57,781 health and safety training hours** were provided in the A2A Group in 2012 (+30% over 2011).

COURSES IN AMSA FOR DRIVING SAFELY AND RESPECTING THE ENVIRONMENT

The **Safe Driving** courses with ASC Quattroruote continued in AMSA, involving 64 people during the year to arrive at a total of over 630 "certified" drivers today. Similarly the "**Ecoguida**" eco-driving course was repeated, which was attended by the drivers-single operators of crushers and is designed to improve people's driving technique and direct this towards reducing polluting emissions, minimising fuel consumption and improving driver safety, with the resulting decrease in road accidents (see also the section "*Environmental responsibility*"). Other drivers' courses included **dealing with contacts with residents** in order to maintain and increase the good satisfaction levels that Amsa has noted from the surveys that have been conducted.

SOS LIFESAVERS FOR SWITCHBOARD OPERATORS

To ensure the safety of district heating plant staff working on shift at a number of the powers stations throughout the Milan area, personnel are provided with "man aground" devices having an electronic system built into a pass-card. These devices are able to send out a request for help in the event that the person wearing the pass-card feels unwell, even if the operator is unable to operate the mechanism directly. The device has unique identification which enables it to get into touch with the power station at which the alarm signal was activated and detect the type of signal sent. The signal arriving from the device is received in a control room which is run by a person who is able to determine the veracity of the signal sent and, if it be the case, to obtain the maximum amount of information that can be used to activate the assistance procedure.

Worker health supervision

Health supervision in A2A is carried out on the basis of the specific risk assessed for each individual worker. The service is provided at **27 health centres** throughout the country and in external organisations with whom agreements have been reached, at which examinations and tests are carried out. A group of 23 skilled doctors, one general doctor and two coordinating specialist doctors work in the Group.

A total of **6,500 medical examinations** and approximately **14,000 further tests** were carried out in 2012. In addition, **85 inspections** were conducted in working environments to check the consistency between the health supervision programme and the work performed by employees.

The doctors held **58 meetings** for group or individual training on a variety of subjects such as: preventive training regarding tests for the absence or drug and alcohol dependence, first aid courses, information on the result of the environmental controls carried out and training on specific risks (computer terminals, biological and chemical risk, etc.).

A total of **548 toxilogical opinions** were issued, to assess the chemical risk of preparations and substances used or being purchased. Eighteen meetings were held in the Group's various local areas between the doctors involved and the inspectors of the certifying body, for tests concerning the maintenance, extension or obtaining of new OHSAS 18001 certifications.

The following health promotion measures were taken during the year with the voluntary participation of workers:

- seasonal influenza vaccination campaign, involving 816 workers;
- optional medical examinations proposed by the doctors and directed at homogeneous groups of workers and technicians;
- the "**Heart project**", a campaign for cardiovascular risk prevention proposed by the Higher Health Institute which saw 458 people taking part.

Four cases of occupational disease were reported in 2012 by the Amsa doctors.

5.1.5 Industrial relations

All employment relationships within the Group are governed by the **National Collective Labour Agreements (CCNL)**, which establish the means of dealing with trade union relationships at the various levels of representation: national, local and single company level. Consistent with the way in which business has evolved in Group companies and the way in which they are organised, the simplification of the employment contracts used continued in 2012, with the metalworkers and telecommunications contracts being superseded (details of the contracts in force are provided in the attached tables on page 136).

Supplementary negotiations in addition to the CCNL are carried out at two levels:

- at a **national** level with the national trade unions organisations for the specific sector and, where necessary, with the assistance of the employers' associations of which the Group is a member (in first place Federutility and Federambiente);
- at a **local and/or company** level with the trade union organisations and with internal trade union representatives (RSAs or RSUs). Negotiations take place in this context on particular agreements for productivity increases and business performance improvements; these agreements reached the natural end of their term in 2012 and are currently being renewed.

The laws and the protection provided by the law are applied as far as **strikes** are concerned: the Group maintains minimum services for plant safety, the workers themselves and the public. The criteria used to identify the staff required are determined with the trade union organisations.

The employment contracts or company agreements specify the notice that is required to be given to lay off personnel under the *mobilità* scheme following changes in operations or organisational changes.

The Group recognises forms of individual benefit or supplementary remuneration in the event of specific situations of staff need, gender or age. Employees may elect to join supplementary pension schemes in compliance with their specific employment contracts.

One hundred and four **employment-related disputes** were in progress or completed during 2012: in 27 of these cases employees made a request to be recognised in a higher category or complained about a reduction in job content. There were also 19 cases regarding appeals against dismissal for disciplinary reasons and 5 cases regarding appeals against precautionary disciplinary sanctions. In addition, 22 claimants were asking to be hired on a permanent basis and 5 appealed against dismissal for exceeding the time of respite (being the maximum period a worker allowed by the law for a worker to be on sick leave). In 4 cases the petitioners were claiming differences in wages or indemnities. Finally, 3 procedures related to employee injuries at work.

5.1.6 Development and training

Enhancing the value of human resources is one of the basic objectives that A2A set itself on creation. Since 2008 the Group has been planning and gradually implementing tools and processes which form part of a consistent staff development system: job positioning, performance management, managerial training, mapping by professional family, development centers for young professionals and the process for appointment as a middle manager or manager. These tools have undergone changes over the years in order to constantly respond to the needs of the Group and the market.

In order to enhance the value of the most able members of staff a structured process is being finalised which will enable the growth potential of internal staff to be captured by both vertical and horizontal growth paths.

The first training step in A2A is a path of **induction for new hires**, which has the aim of helping these members of staff to get to know the details and complexities of the Group's organisation and the specific

specialities of each of its businesses. This path consists of a classroom session (A2A Day) and a plant visit. The classroom session includes twenty or so presentations carried out by internal speakers who are members of middle management of the individual departments/companies. In 2012, this introduction to the Group involved 57 people and the average mark given to the induction was 5.6 (on a scale of 1 to 7).

Additional activities to accompany young new hires are currently being planned for 2013 to provide them with a more complete view of the Group: from the standpoint of the customer, of management and of their senior colleagues.

In order to continue increasing the knowledge of **A2A's young employees** with a view getting closer and listening, the activities which began in 2011 continued: tutoring meetings for newly hired graduates and development centers for young professional graduates. As far as the latter activity is concerned, 36 young people belonging to the various companies of the Group were involved in 2012 for a total of 428 hours. Over the past few years around 50% of the young professional population cluster have been involved in the development center activities..

The **2012 training strategy** and the resulting operational plan maintained a vision of togetherness that integrates training with other development tools. Managerial training has been planned on the basis of this logic, which over a medium- to long-term time period envisages courses designed to accompany a person over the course of his or her professional path through four crucial stages: newly hired, professional, middle manager/supervisor, manager. The contents and complexity of each training path are progressively enhanced, consistent with the professional development and responsibilities allocated to staff. Thirteen courses connected with the main skills going across all of the Group's businesses were held in 2012:

- **5 courses for new hires**: management of interpersonal relationships, team working and cooperation, problem solving and pro-activeness, being able to appraise one's own performance, cost and process management (business game);
- **3 courses for professionals**: management of interpersonal relationships, negotiating and managing disputes, operating in accordance with the criteria of efficiency and effectiveness;
- 5 courses for middle managers and supervisors: team working and team building, time management, dealing with complex situations, cost and process management (advanced), elements of project management.

Starting from the logic of "professional families", training courses are organised to develop and consolidate specific skills for certain roles which the Group considers critical. This **role training** consists of technical courses, mostly connected with operating know-how and skills (specific job training), and managerial training for organisational conduct and non-technical skills. The specific job training courses are arranged by subject: environment, administration, information technology, quality, safety and technical. For role training at a managerial level, the subject matter developed to the greatest extent in 2012 regarded technical people in charge of the operational coordination of staff (for example assistants and coordinators). The use of the **e-learning platform**, which accompanies the more traditional classroom training (pre-work and postwork), continued in 2012. This platform requires initiative and a pro-active approach from the participant, who plays a leading role in his own training and is not a mere user. This approach also enables the time employed in consulting and using the courses to be recorded and considerably reduces the distribution of paper materials, as the participant can consult the material in the dedicated area of the course. These courses led to a total of 1,882 training hours with 691 attendances.

A CONTROLLED SYSTEM OF COMPULSORY TRAINING

Objective: to create a management ands control system for compulsory training, which can ensure a high level of effectiveness for the purpose of **complying with legislation and business needs** and which also enables periodical **compulsory training deadlines** to be monitored. That is the subject of a project which involved the following departments: safety, environment, law 231, privacy and unbundling. This system enables the following to be carried out:

• the proposal of theoretical compulsory training to the head of personnel, by individual worker,

depending on the position a person holds, his role and the work he performs, as well as the risks connected with the specific job (on the basis of current legislation and the specific risk schedules);

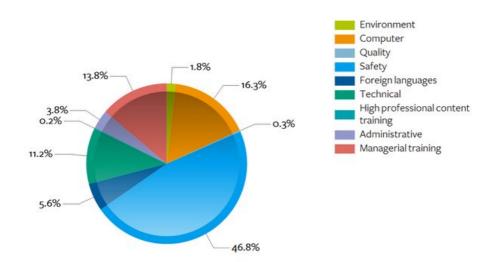
- the comparison of these theoretical needs with the training employees have received in the past and with the training already planned for them;
- the setting out of the training requirements that need to be met.

The head of personnel has the important task of confirming the needs indicated by the system or adding to them, and of keeping the information relating to roles, positions and work performed contained in the data base updated.

Language training is structured into two different thematic streams: grammar for basic level groups and business English for the intermediate and advanced levels. English is the main protagonist, and this is accompanied by courses in other languages for specific needs, such as French, German and Italian. The courses involved 277 people and 6,934 hours.

The hours dedicated to computer training increased for the courses in the "unbundling project" which envisages the separation of information management between distribution companies and sales companies. The separation ratified by the Electricity and Gas Authority also involves the information systems which manage customer data. These systems have therefore been modified to allow for the separate management of customers and the training required for this was organised. This course involved the staff of A2A Reti Gas, A2A Reti Elettriche, A2A Servizi alla Distribuzione and A2A Energia for a total of 773 attendances and 5,307 hours

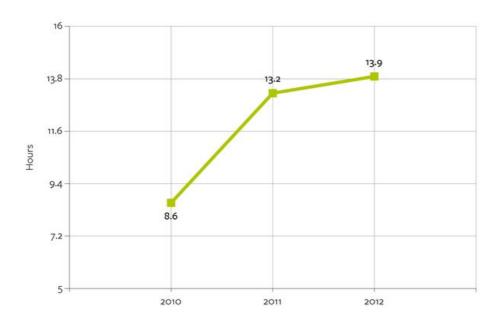
124 Main training areas in A2A



A total of over 123 thousand hours of training were given in 2012, representing an average of 13.9 hours per person.

Participant appreciation remained at high levels in general: the average mark was 5.8 (on a scale of 1 to 7) for all the training provided during the year.

125 Average hours of training per head



WEHR PROJECT

Following the restructuring of the Human Resources and Properties Department a project - known as We-HR - was started up in March 2012 with the aim of assisting the department's employees during the organisational change. The key words characterising this project, which has continued into 2013, are Cohesion, Energy and Professionalism.

In addition to training workshops focalised on sharing a vision of the HR roles with respect to the evolution of the Group and establishing goals that are in line and consistent with its specific businesses, an online portal has also been created. The aim of this virtual space is to suggest professional issues for Human Resources and provide occasions to get to know colleagues working in different places inside the specific Professional Family but having similar purposes and the necessary skills, and exchanging views with them.

A2A uses a **performance management** system which is gradually being extended to increasing sectors of the Group's employees. This process was set up in 2009 and by 2012 its use had extended to appraising all the managers, middle managers and white-collar workers of Group companies.

The performance management system is used on an annual basis and varies, in terms of the process and appraisal areas, on the basis of the reference population. The tool assesses and addresses three basic elements of the way in which people act from an organisational standpoint:

- the **individual results achieved** compared to the assigned objectives (only for managers and supervisors/middle managers);
- the **conduct** of people with respect to a map of key skills for the role filled which reflect the Group's values and include sustainability;
- a **personal improvement plan**, which for each individual identifies the goals for improving the skills he or she possesses and the learning actions required.

The around 500people involved as appraisers have all received specific training on the model adopted by the Group, skill assessment and feedback meetings. This training path started off in 2009 and in 2012 involved newly appointed supervisors in training to cover a total of approximately 850 hours and 57 attendances.

5.1.7 Internal communications

There are two main means by which internal communications are channelled in A2A: the house organ INADUEÀ and the intranet.

INADUEÀ talks about the Group's plans, products and technological innovations, enhancing the value of professional experience and the jobs of the people who work in the various companies and locations. The house organ is sent out in hard copy by post to all collaborators and its circulation now exceeds 10 thousand. A web version is additionally available on the Group's intranet in the section "Communication". The periodical is printed and distributed on the basis of very precise co-compatibility requisites, which range from the paper used (FSC) to the ink and the packaging in bioplastic for mailing purposes. A small-bite version of the 2011 Sustainability Report was included in the June edition to spread awareness of the main facts and objectives of the Group in terms of Corporate Social Responsibility and performance in this respect.

The intranet portal cww.a2a.eu consolidated the excellent access results it achieved the previous year, with an increase of 21% in the number of visitors and an average of approximately 5,500 visitors a month, and a rise of 43% in the number of visits.

Employees can use the portal to remain constantly up to date about the Group's activities and development plans, as was the case for the 2013-2015 Business Plan. Considerable importance was also given to the communication campaign launched in November 2012 on the subject of sustainability: a specific page was dedicated to the argument through which it was possible to take part in the survey entitled "Sustainability. Listen to improve" (see pages 22 to 24 in this respect).

With the "**QES mini-sites**" project it was possible to provide each Group company with a reserved area on the intranet portal containing all the documents relating to Quality, Environment and Safety, also for the purpose of the audits which the companies undergo on a periodic basis.

The sections of the intranet portal visited the most continue to be: telephone directory, personnel services, online services, notice-board, news and legislative documents. There was also an increase in the final months of the year in the number of accesses to the directory for the vision-impaired, created specifically for the purpose and available on the Group's intranet.

126 Trends in intranet access



Two internal events were arranged on the presentation of the Group's new 2013-2015 Business Plan, one for managers and the other for middle managers, at which the contents of the plan were illustrated by the two General Managers, by the Chairman of the Management Board and by the Chairman of the Supervisory Board.

ALL MORE EFFICIENT, HAPPIER AND... REWARDED WITH INFORMATION TECHNOLOGY

To deal with the need to equip Ecodeco's new premises with a modern IT infrastructure, a pilot project was carried out in 2011-2012 for "Unified Collaboration and Communication". The aim of the project was to provide integrated services for facilitating and improving business processes through the use of innovative technologies and latest generation equipment. Following the success of the pilot project, the service was then extended to the whole of the A2A Group with the following benefits:

- a reduction in travelling to meetings and stopovers thanks to the use of collaboration and conferencing equipment;
- an increase in the productivity of work teams;
- an increase in personal efficiency, thanks to the availability of new tools (presence, chat, the sharing of desktops and documents, etc.):
- a reduction in the number of emails and attachments.

A2A won the ICT Innovation Award for this initiative in the "Advanced Communications Systems Category", standing out among Italian companies and public administration entities which have innovated their businesses through the use of information and communication technology.

DOWN TO WORK FOR SUSTAINABILITY

An annual kick-off meeting for the work involved in the preparation of the next Sustainability Report was also organised in 2012. Around a hundred contact people from all of the Group's companies and departments attended the meeting, to reflect on sustainability through dedicated illustrations and presentations by outside speakers. This year work groups were structured with the aim of discussing

various specific sustainability case histories and preparing a common, agreed response. In order to present this response to the cases assigned, each group produced a series of creative outputs (videos, cartoons, talk shows, etc.) which were subsequently assessed by a jury to decide which was the best. The extent of the participation and the quality of the output confirmed the high level of awareness of and sensitivity to sustainability issues.

5.1.8 Other initiatives benefiting employees

A2A carries out initiatives for its employees that go beyond what is strictly business life. These initiatives are available to the whole of the staff, regardless of the type of employment contract (fixed-term or permanent, full-time or part-time). The extra activities are mainly designed to provide employees with interesting opportunities for the use of their free time and are run by the Group Recreational Clubs: CREAM Milan, CRASM Brescia, FIDAS Amsa, Cral ASM Bergamo and CRAL Beni Culturali Naples.

THE A2A GROUP'S RECREATIONAL CLUBS

To coordinate and manage social, cultural, recreational, tourist, sporting and supplementary assistance activities aimed at improving the quality of an employee's free time and defending the purchasing power of members' wages. That is the scope of the Group's recreational clubs, of which **all employees are automatically members** but in which retired employees and family members can also get involved. The A2A Group made contributions totalling 3.7 million euro to the recreational clubs in 2012.

Around 40,000 presences were recorded in CRAEM's 4 hotels and 2 holiday camps, over 170 children took part in campus holidays and around 1,500 members participated in tourist initiatives. A total of 42 cultural, recreational and sports initiatives were organised during the year. Over 1,300 members used the Club's health facilities. Thirty per cent of institutional grants were disbursed in the form of school, sports and cultural grants or for mobility. In total, 85% of members have used CRAEM at least once. Ecodeco's employees also joined in 2012.

In 2012 CRASM organised trips, journeys and stays, attendances at exhibitions or musical events, parties, English language courses and study holidays abroad for older children or colonies or nature-based stays for the younger ones. There are 15 specific groups in CRASM, and these organise sports tournaments and tennis, ski-ing and computer courses and also arrange for the loan of films and music CDs.

The agreement between A2A and ATM (the Milan transport company) enables employees to purchase annual season tickets at a reduction of 15%, with the possibility of paying in 12 monthly instalments without interest and receiving the ticket directly at their place of work. Applications for 798 season tickets were made in 2012, of which 162 in Amsa. There are additional agreements for Amsa employees which provide for specific facilities such as car pooling.

Thanks to the assistance of the **psychological assistance service**, employees have the possibility of free of charge sessions to provide support at critical moments in their life inside and outside of work. The psychologist is available every fortnight at all of the locations of A2A (Milan and Cassano d'Adda) and Amsa. The service has been extended to the Brescia and Bergamo locations from March 1, 2013.

A2A has a Group nursery situated next to the Brescia location which takes in children of the Group's employees as a priority and those of employees of the other companies forming part of the agreement on a pro-rata basis. The nursery can accept up to 60 children (with ages ranging from 12 to 36 months). A2A and the partner businesses make a contribution in order to cover a portion of the monthly charges payable by employees.

A2A FOR THE EARTHQUAKE VICTIMS IN EMILIA ROMAGNA AND MANTUA

When the earthquake struck the region of Emilia Romagna and the province of Mantua in 2012, the A2A Group joined the solidarity initiative set up by Confindustria and the trade union organisations. Donations made by employees reached over 100,000 euro, a figure which the Group doubled and paid into the special national fund created for this purpose.

5.1.9 Tables: A2A people numbers

127 Personnel by category and type of contract

,												
		2	010		2011				2012			
	Men	Women	Total	%	Men	Women	Total	%	Men	Women	Total	%
Managers	114	15	129	1.4%	106	18	124	1.4%	111	21	132	1.5%
Middle managers	298	83	381	4.1%	287	83	370	4.1%	293	90	383	4.3%
White-collar workers	2,596	1,038	3,634	39.0%	2,590	1,037	3,627	39.9%	2,577	1,076	3,653	41.0%
Blue-collar workers	4,519	199	4,718	50.6%	4,432	202	4,634	50.9%	4,400	202	4,602	51.7%
Permanent workers	7,527	1,335	8,862	95.1%	7,415	1,340	8,755	96.2%	7,381	1,389	8,770	98.5%
Fixed-term contract workers	228	64	292	3.1%	78	51	129	1.4%	74	24	98	1.1%
Job training and work entry contracts	32	5	37	0.4%	42	9	51	0.6%	24	7	31	0.3%
Fixed-term workers	260	69	329	3.5%	120	60	180	2.0%	98	31	129	1.4%
Workers with non-Italian contracts	107	26	133	1.4%	132	33	165	1.8%	1	1	2	0.0%
Of whom fixed- term workers	nd	nd	nd	nd	5	3	8	4.8%	0	1	1	50.0%
Total	7,894	1,430	9,324	100.0%	7,667	1,433	9,100	100.0%	7,480	1,421	8,901	100.0%
Of whom with part-time contacts	71	249	320	3.4%	104	264	368	4.0%	94	259	353	4.0%

128 Personnel by workplace

									0010			
		20	010		2011 2012				012			
	Men	Women	Total	%	Men	Women	Total	%	Men	Women	Total	%
Abruzzo	53	6	59	0.6%	52	6	58	0.6%	52	6	58	0.7%
Calabria	91	2	93	1.0%	89	2	91	1.0%	86	2	88	1.0%
Campania	179	10	189	2.0%	192	11	203	2.2%	193	13	206	2.3%
Emilia Romagna	10	9	19	0.2%	10	10	20	0.2%	8	3	11	0.1%
Friuli Venezia Giulia	155	3	158	1.7%	147	4	151	1.7%	145	4	149	1.7%
Lazio	2	1	3	0.0%	2	1	3	0.0%	1	2	3	0.0%
Lombardy	7,258	1,359	8,617	92.4%	7,006	1,352	8,358	91.8%	6,960	1,376	8,336	93.7%
Piedmont	26	10	36	0.4%	24	10	34	0.4%	23	10	33	0.4%
Veneto	13	4	17	0.2%	13	4	17	0.2%	11	4	15	0.2%
Abroad	107	26	133	1.4%	132	33	165	1.8%	1	1	2	0.0%
Total	7,894	1,430	9,324	100.0%	7,667	1,433	9,100	100.0%	7,480	1,421	8,901	100.0%

129 Personnel by age band

L																		
			2	010			2011					2012						
	Managers	Middle managers	White-collar workers	Blue-collar workers	Total	%	Managers	Middle managers	White-collar workers	Blue-collar workers	Total	%	Managers	Middle managers	White-collar workers	Blue-collar workers	Total	%
Up to 30	0	10	304	515	829	8.9%	0	12	293	476	781	8.6%	0	0	299	458	757	8.5%
From 31 to 40	16	85	786	1,207	2,094	22.5%	12	75	751	1,073	1,911	21.0%	14	69	708	1,058	1,849	20.8%
From 41 to 50	55	179	1,630	1,922	3,786	40.6%	55	172	1,603	1,833	3,663	40.3%	62	159	1,557	1,830	3,608	40.5%
Over 50	67	143	1,109	1,296	2,615	28.0%	65	156	1,191	1,333	2,745	30.2%	59	157	1,167	1,304	2,687	30.2%
Total	138	417	3,829	4,940	9,324	100.0%	132	415	3,838	4,715	9,100	100.0%	135	385	3,731	4,650	8,901	100.0%

130 Personnel by seniority in the Group

		2010					2011						2012					
	Managers	Middle managers	White-collar workers	Blue-collar workers	Total	%	Managers	Middle managers	White-collar workers	Blue-collar workers	Total	%	Managers	Middle managers	White-collar workers	Blue-collar workers	Total	%
Up to 10 years	71	146	1,065	2,146	3,428	36.8%	63	143	1,089	2,022	3,317	36.5%	67	106	1,064	2,066	3,303	37.1%
From 11 to 20 years	31	78	913	1,281	2,303	24.7%	32	66	803	1,206	2,107	23.2%	34	66	734	1,052	1,886	21.2%
From 21 to 30 years	31	141	1,373	1,235	2,780	29.8%	32	152	1,407	1,168	2,759	30.3%	28	159	1,425	1,240	2,852	32.0%
Over 30 years	5	52	478	278	813	8.7%	5	54	539	319	917	10.1%	6	54	508	292	860	9.7%
Total	138	417	3,829	4,940	9,324	100.0%	132	415	3,838	4,715	9,100	100.0%	135	385	3,731	4,650	8,901	100.0%

131 Personnel by educational qualification

		20	010			2	011		2012			
	Men	Women	Total	%	Men	Women	Total	%	Men	Women	Total	%
University degree	540	293	833	8.9%	510	298	808	8.9%	536	320	856	9.6%
High school certificate	2,641	730	3,371	36.2%	2,597	719	3,316	36.4%	2,619	729	3,348	37.6%
Professional qualification	604	94	698	7.5%	584	93	677	7.4%	577	91	668	7.5%
Compulsory schooling	4,043	301	4,344	46.6%	3,845	291	4,136	45.5%	3,748	281	4,029	45.3%
Information not available	66	66 12 78		0.8%	131	32	163	1.8%	0	0	0	0.0%
Total	7,894					7,667 1,433 9,100 100.0%				1,421	8,901	100.0%

132 Hiring during the year by category

		2010			2011			2012	
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Managers	7	0	7	3	1	4	5	2	7
Middle managers	4	3	7	4	2	6	7	2	9
White-collar workers	41	14	55	14	13	27	28	22	50
Blue-collar workers	130	5	135	95	8	103	68	2	70
Permanent workers	182	22	204	116	24	140	108	28	136
Fixed-term contract workers	276	57	333	184	47	231	193	34	227
Job training and work entry contracts	25	6	31	17	5	22	17	6	23
Fixed-term workers	301	63	364	201	52	253	210	40	250
Abroad	47	13	60	37	10	47	0	0	0
Total	530	98	628	354	86	440	318	68	386

133 Leavers during the year by gender

	2010 2011				2012				
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Retirement	143	8	151	149	8	157	141	11	152
Voluntary termination	101	10	111	66	14	80	68	14	82
Deceased	10	0	10	11	2	13	16	0	16
Dismissals	36	2	38	18	1	19	18	1	19
Other (e.g. end of fixed-term contract)	77	11	88	216	30	246	134	22	156
Total	367	31	398	460	55	515	377	48	425
Turnover rate	4.71%	2.21%	4.33%	6.10%	3.93%	5.76%	5.04%	3.38%	4.78%
Abroad	17	2	19	24	5	29	0	0	0
Turnover rate	15.89%	7.69%	14.29%	18.18%	15.15%	17.58%	0.0%	0.0%	0.0%

134 Leavers during the year by age band

			2010			2011					2012				
	up to 30	31-40	41-50	over 50	Total	up to 30	31-40	41-50	over 50	Total	up to 30	31-40	41-50	over 50	Total
Retirement	0	0	0	151	151	0	0	0	157	157	0	0	0	152	152
Voluntary termination	16	35	16	44	111	12	17	15	36	80	17	17	14	34	82
Deceased	1	1	3	5	10	0	0	3	10	13	0	2	5	9	16
Dismissals	8	18	8	4	38	4	9	1	5	19	6	6	4	3	19
Other (e.g. end of fixed-term contract)	38	28	16	6	88	86	97	46	17	246	64	52	33	7	156
Total	63	82	43	210	398	102	123	65	225	515	87	77	56	205	425
Turnover rate	7.89%	3.99%	1.14%	8.13%	4.33%	13.84%	6.60%	1.79%	8.31%	5.76%	11.49%	4.17%	1.55%	7.63%	4.78%
Abroad	7	7	4	1	19	5	9	5	10	29	0	0	0	0	0
Turnover rate	22.58%	17.50%	13.33%	3.13%	14.29%	11.36%	19.57%	13.89%	25.64%	17.58%	0.0%	0.0%	0.0%	0.0%	0.0%

135 Working stay of leavers during the year

		2011		2012
	Men	Women	Men	Women
Up to 30	1.3	0.3	0.6	0.0
From 31 to 40	0.3	0.9	2.1	2.5
From 41 to 50	0.4	0.1	5.3	8.0
Over 50	11.6	8.9	26.6	29.1

136 Training provided by category

		2010		2011	2012		
	Number of hours	Average annual hours of training by employee	Number of hours	Average annual hours of training by employee	Number of hours	Average annual hours of training by employee	
Managers	1,949	14.3	1,915	14.5	1,651	12.2	
Middle managers	11,734	28.1	12,616	30.4	10,464	27.2	
White-collar workers	42,503	11.4	63,122	16.4	71,980	19.3	
Blue-collar workers	24,320	5.2	42,908	9.1	39,308	8.5	
Total	80,506	8.6	120,562	13.2	123,403	13.9	

137 Training provided by gender

	2	011	2	012
	Men	Women	Men	Women
Number of hours	103,808	16,755	101,553	21,850
Average annual hours of training by employee	13.54	11.69	13.58	15.38

138 Training provided by course content

	20	10	20	11	20	12
	Number of attendances*	Number of hours	Number of attendances*	Number of hours	Number of attendances*	Number of hours
Environment	472	2,159	979	4,634	466	2,233
Administrative	1,064	2,613	1,555	4,793	1,292	4,730
ICT	1,366	9,942	1,292	10,288	2,874	20,170
Quality	117	362	56	153	232	382
Safety	5,053	21,820	8,125	35,721	12,065	57,781
Technical	3,026	18,416	3,483	32,169	2,108	13,810
Training with high professional content	55	412	65	1,337	8	285
Managerial training	1,883	19,913	2,665	26,275	1,421	17,078
Foreign languages	206	4,870	191	5,193	277	6,934
Total	13,242	80,506	18,411	120,562	20,743	123,403

 $[*]People\,may\,be\,counted\,more\,than\,once\,depending\,on\,the\,number\,of\,courses\,they\,have\,attended$

139 Internships for new graduates and high school leavers

Туре	Length	Contents	Provided in 2010	Provided in 2011	Provided in 2012
Secondary school students	4 weeks	Consistent with qualification	63	61	103
Post high school certificate/ bachelors or masters degree	3-6 months	Trading, engineering, quality environment safety, sales/marketing area, administration finance and control, human resources, legal	35	36	26
Curricular and preparation of dissertation	3-6 months	Consistent with the university course	15	17	12
Obtaining licence for driving steam generators	from 180 to 240 working days	Technical training at the Group's plants	14	14	11
		TOTAL	127	128	152

140 Accident data

	ENERGY SECTOR ENVIRONMENT SECTO					
	2010	2011	2012	2010	2011	2012
N° of accidents (excluding while travelling)	96	91	67	592	523	512
N° of days absence (excluding while travelling)	2,928	3,721	1,931	14,882	14,022	11,385
Average duration	30.5	40.9	28.8	25.1	26.8	22.2
Frequency rate FR	14.7	12.5	8.9	77.3	74.5	71.9
Severity index SI	0.45	0.51	0.26	1.94	2	1.6
Occurrence rate OR	22.8	20.7	14.9	123.5	116.2	116.3
Accidents while travelling	32	46	57	68	73	110

When calculating the indices only **professional** accidents which lead to at least one day's absence excluding that of the event are considered; medications and precautions are excluded as are accidents which are not recognised as such. Professional accidents also include those which occur due to a simple transfer, with or without the use of a vehicle.

All accidents happening to workers, regardless of the type of work relationship (e.g. staff leasing) are taken into account.

 $FR = frequency rate (n^{\circ} of accidents x 1,000,000 : hours worked)$

SI = severity index (n° days absence x 1,000: hours worked)

 $OR = occurrence rate (n^{\circ} of accidents x 1,000 : workforce)$

Accidents while travelling: accidents happening to workers on the way to and from work (and in any case outside working hours)

141 Health and safety training

SUBJECT (number of hours)	2010	2011	2012	
First aid	3,901	3,644	4,314	
Fire prevention	242	6,848	2,934	
Prevention	17,677	24,539	47,402	
Equipment	18,416	9,467	3,131	
Total	40,236	44,498	57,781	

142 Health supervision programme

HEALTH EXAMINATIONS AND TESTS	2012
Periodical examinations established by the health protocol	4,598
Preventive examinations on hiring/entry	427
Examinations requested by workers, on job changes, following absences > 60 days for health reason , health promotion examinations, heart project, etc.	1,553
Total examinations	6,578
Haemochemical tests	3,670
Audiometries	686
Spirometries	1,542
Electrocardiograms	1,936
Professional vaccinations (anti-tetanus, anti-hepatitis A-B, anti-typhoid)	1,592
Tests using instruments (X-rays, eye screening, scans, etc.)	1,490
Specialist tests (ocular, cardio, orthopaedic, etc.)	1,158
Testing for drug dependence	1,652
Testing for the absence of alcohol dependence	144
Total additional tests	13,870

143 Absences from work

. 									
	2010		2011			2012			
	n°of days	% occurrance	working days per employee	n°of days	% occurrance	working days per employee	n°of days	% occurrance	working days per employee
Illness	102,318	4.5%	11.3	103,885	4.5%	11.4	98,786	4.4%	11.0
Maternity leave (compulsory, optional, breast feeding)	12,562	0.5%	1.4	13,673	0.6%	1.5	16,353	0.7%	1.8
Trade union leave	12,018	0.5%	1.3	10,983	0.5%	1.2	11,643	0.5%	1.3
Paid leave (medical visits, etc.)	12,282	0.5%	1.4	4,575	0.2%	0.5	4,364	0.2%	0.5
Unpaid leave/other leave	4,112	0.2%	0.5	7,691	0.3%	0.8	7,069	0.3%	0.8
Other absences (wedding leave, study leave, etc.)	27,558	1.2%	3.0	48,542	2.1%	5.3	49,268	2.2%	5.5
Company strikes	301	0.0%	0.0	894	0.0%	0.1	0.0	0.0%	0.0
National strikes	2,022	0.1%	0.2	2,454	0.1%	0.3	3,523	0.2%	0.4
Accidents	17,797	0.8%	2.0	17,447	0.8%	1.9	16,158	0.7%	1.8
Total	190,970	8.3%	21.1	210,145	9.0%	23.0	207,164	9.3%	23.1

	2010	2011	2012
Average number of employees	9,046	9,153	8,974
Total working days	2,288,514	2,324,778	2,234,151
Total hours worked	14,213,063	14,872,091	14,634,946
Days absence per head as a percentage of working days	8.3%	8.8%	9.3%
Average annual days absence per head	21.11	22.96	23.09

144 Absence from work - number of working days lost, by gender

	2011		2012	
	Men	Women	Men	Women
Illness	87,350	16,535	83,247	15,539
Maternity leave (compulsory, optional, breast feeding)	1,743	11,931	2,522	13,831
Trade union leave	10,241	742	10,895	748
Paid leave (medical visits, etc.)	3,791	784	3,246	1,118
Unpaid leave/other leave	5,776	1,915	5,032	2,037
Other absences (wedding leave, study leave, etc.)	42,580	5,961	42,526	6,742
Company strikes	833	62	0	0
National strikes	2,060	393	3,170	353
Accidents	15,734	1,713	14,421	1,737
Total	170,109	40,037	165,059	42,105

145 Rate of days lost* (total number of days lost for accidents or absence due to illness as a percentage of the total hours worked by the workforce in the year)

	2010	2011	2012
Hours lost for illness at work			
Italy	0.00	0.00	0.00
Abroad	0.00	0.00	0.00
Hours lost for accidents			
Italy	135,257.20	109,141.25	105,109.44
Abroad	0.00	1,407.05	0.00
Rate of days lost			
Italy	0.97%	0.75%	0.72%
Abroad	0.00%	0.00%	0.00%

 $^{^{\}circ}$ Days lost means days on which work cannot be performed due to an accident or professional illness. These are not counted if there is a partial return to work.

146 Absence rate (days lost for absence as a percentage of the total days worked by the workforce in the year)

	2010	2011	2012
Total days absence	138,568	143,355	137,180
Italy	137,321	141,915	137,180
Abroad	1,246	1,440	0
Overall absence rate	6.06%	6.17%	6.14%
Italy	6.01%	6.21%	6.14%
Abroad	3.98%	3.80%	0.00%

147 Return to work and retention rate after parental leave, by gender

		2011	Out in 20	2012		
	Men	Women	Men	Women	Men	Women
Parental leave taken	128	169	0	0	194	283
of whom returned to work	115	158	10	16	187	264

148 Workers by type of employment contract

	2	2010		011	2012		
	Total	%	Total	%	Total	%	
Managerial contract	131	1.4%	125	1.4%	135	1.5%	
Electricity contract	2,939	31.5%	2,796	30.7%	2,805	31.5%	
Single gas and water contract	1,283	13.8%	1,305	14.3%	1,292	14.5%	
Commercial contract	247	2.6%	254	2.8%	272	3.1%	
Urban hygiene contract	4,236	45.4%	4,092	45.0%	4,030	45.3%	
FISE contract	170	1.8%	170	1.9%	176	2.0%	
Chemical contract	166	1.8%	174	1.9%	169	1.9%	
Other contracts	19	0.2%	21	0.2%	20	0.2%	
Foreign contracts	133	1.4%	163	1.8%	2	0.0%	
Total	9,324	100.0%	9,100	100.0%	8,901	100.0%	

149 Trade union membership

	2	2010		2011		012
	Total	%	Total	%	Total	%
Members of federal organisations	3,838	41.2%	3,624	39.8%	3,677	41.3%
Members of other trade union organisations	1,216	13.0%	1,318	14.5%	1,282	14.4%
Employees not members of trade unions	4,137	44.4%	3,993	43.9%	3,940	44.3%
Abroad - members of other trade union organisations	1	0.0%	1	0.0%	0	0.0%
Abroad - employees not members of trade unions	132	1.4%	164	1.8%	2	0.0%
Tota	l 9,324	100.0%	9,100	100.0%	8,901	100.0%

150 Strike hours

		2010		2011	2012		
	Total strike hours	Strike hours per head*	Total strike hours	Strike hours per head*	Total strike hours	Strike hours per head*	
Brescia, Bergamo, Milan areas	16,897	2.08	22,901	2.72	17,973	2.14	
Other areas	759	0.96	1,254	2.16	796	1.39	
Abroad	8	0.06	0	0	0	0	
Total	17,663	1.90	24,155	2.64	18,769	2.09	

^{*}The per head hours are calculated on the basis of the average workforce.



IDENTITY CARD

AT DECEMBER 31, 2012

A2A operates mainly in Lombardy but also in other Italian regions and in a number of European countries.

151 Customer distribution by sector

A2A Group	2010	2011	2012
Electricity customers (supply points)	1,036,446	1,023,599	1,007,978
Electricity sold(1) (GWh)	20,177	23,646	23,664
Gas customers (supply points)	1,220,042	1,195,568	1,171,722
Gas sold ⁽¹⁾ (millions of cm)	3,805	4,103	4,194
Water customers (aqueduct service users)	327,452	277,014	278,366
Water supplied to users (millions of cm)	109	76	74
District heating customers (users served)	21,939	22,448	23,511
Heat sold (GWht)	2,150	2,078	2,217
Municipalities served for environmental hygiene	86	86	89
Waste collected ⁽²⁾ (migliaia di ton)	1,942	1,967	1,759
Electricity networks (kilometres)	12,689	12,815	13,052
Gas networks (kilometres)	8,075	8,067	7,980

2012

"Guide to reading your bill" for electricity and gas translated into 6 languages

New "anti-fraud" toll-free number 800.912.760

A2A Ciclo Idrico took 8,009 samples of drinking water, analysing 168,228

Positive and improved ratings for A2A in levels again in 2012

"PULiamo": launched at the end of June as the first mobile application for the environment

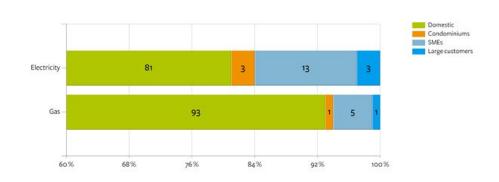
⁽¹⁾ Energy and gas sold to wholesale and retail customers
(2) Waste collected means urban waste collected for the environmental hygiene service and special waste collected by Amsa and Aprica with a charge for the service

5.2.1 Selling electricity and gas

A2A sells electricity and gas through the companies A2A Energia, Aspem Energia and Camuna Energia, with a consolidated presence in Lombardy and Northern Italy. The Group is gradually extending its commercial presence to the rest of the country as shown in the table showing a geographical analysis of active contracts in 2012.

The sales companies market electricity and gas providing offers for customers of all the various market segments: residential, condominiums, small and medium enterprises (SMEs), the public administration and manufacturing and energy companies.

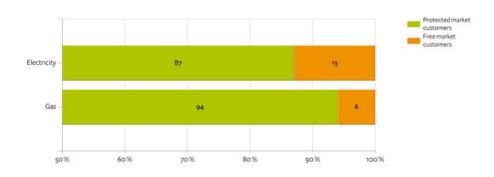
152 Customer analysis by type





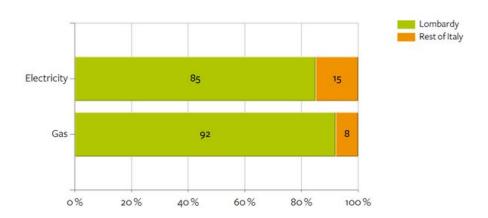
Customers can choose their energy and gas supplier on the basis of their needs; those who do not wish to accept an offer on the **free market** automatically form part of the **protected market**, with economic and service terms and conditions set by the Electricity and Gas Authority (AEEG). By far and away the protected market still has the largest share of the gas and electricity sector in the country as a whole. This is also true for A2A, as the following graph shows.

153 Supply contracts by type of market



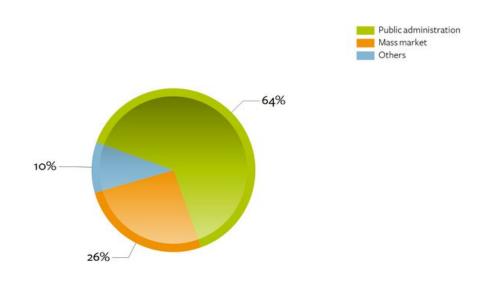
In terms of volume this ratio changes significantly, showing the extent to which access to the free market has by now become a habit for business customers (medium and large companies, characterised by high levels of usage) whereas the majority of residential customers (high numbers and low usage) have not yet made this decision.

154 Geographical analysis of volumes sold



GREEN ENERGY

Again in 2012 the electricity and gas sales companies in the A2A Group proposed the "**PrezzoSicuroVerde**" offer to their domestic customers and the "**Energia Pulita**" offer to their business customers, bearing the A2A 100% Renewable Energy name, which guarantees the supply of energy produced exclusively from renewable sources (water and biomasses) at the Group's plants. The energy offers associated with renewable source development policies are based on Resolution ARG/elt no. 104/11 of the AEEG which transposes the Ministerial Decree of July 31, 2009 and Directive 2009/28/EC on governing information for end customers on the composition of the mix of primary energy sources. Production from renewable sources is guaranteed by a procedure using certificates of origin, CO-FER certificates (Certificates of Origin from Renewable Energy Sources), allowing "transfers" of energy to be tracked from production to sales to end customers.



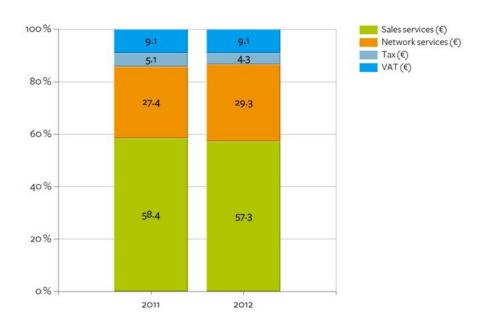
Cost and method of payment

The tariffs charged to customers on the protected market are regulated by the Electricity and Gas Authority (AEEG) on a periodic basis, while prices for customers on the free market are proposed by the seller through specific offers.

The graphs below show the trend over the past two years in the various cost components that make up bills, taking as a reference point the consumption of a "typical" household. For electricity, a resident domestic use contract was taken having 3 kW of committed power and an average annual consumption of 2,700 kWh. For gas, domestic use with independent heating and an annual consumption of 1,400 cm was taken.

The composition of the costs making up the bill has remained essentially constant over the two years against an increase in average annual expenditure for both electricity and gas.

155 Cost trends in the electricity bill for a "typical" household



156 Cost trends in the gas bill for a "typical" household



ENERGY MIX IN THE BILL

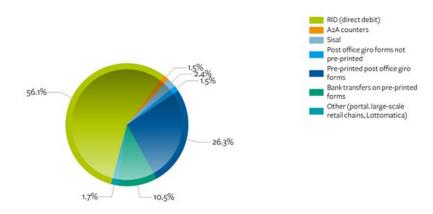
In 2012 A2A Energia satisfied its information requirements for the composition of the energy mix for the production of electricity put into the Italian electricity system for 2011 by communicating its mix of production sources and the composition of the energy sold to its customers.

A2A Energia stated that the percentage of energy sold which came from renewable sources was 30.7% for the free market and 38.4% for the protected market.

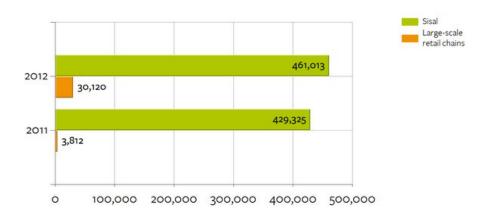
A2A issues approximately 13 million bills each year for the supply of electricity and gas on a monthly, two-monthly or quarterly basis, depending on the type of customer and service provided.

A2A customers can choose to choose to pay their bills in a whole variety of different ways, some of which have no cost for the service. Besides the traditional payment channels (direct debit, post office giro, at the counter), the use of the new channels which started up in 2011 has increased, such as: the Sisal collection offices, certain large-scale retail channels and the new Lottomatica channel (Aspem Energia does not provide the possibility of paying through Sisal or Lottomatica, at desks or via the portal). The most popular payment channel for customers continues to be bank account direct debits (RIDs), followed by preprinted post office giro forms.

157 Method of payment preferred by A2A customers



158 Number of transactions via the new payment channels



THE "GUIDE TO READING YOUR BILL" BECOMES MULTILINGUAL

To assist customers in reading their electricity and gas bills, which contain a great deal of legally required information, A2A continued proposing the "Guide to reading your bill" in 2012, a document prepared in conjunction with 17 consumers' associations. The guide was distributed with a glossary as follows:

- publication on the internet in a "browsable" version;
- distribution at the desks of the 17 consumers' associations involved in the initiative;
- distribution at the sales desks of A2A Energia;
- enclosed with bills.

Versions in six other languages were added to the Italian version in 2012: English, French, Spanish, Arabic, Chinese and Romanian. A glossary has also been produced providing an explanation of the main terms used in electricity and gas bills, and this was included in the extended version of the guide, a genuine set of instructions for use by counter clerks



The number of activations of electronic bills increased further in 2012 and users reached the 155,000 mark by the end of the year. The "**bollett@mail**" service was also promoted by means of a prize competition, advertised by enclosing an information leaflet in over 1.5 million bills.

159 Use of A2AEnergia's electronic bill service

Users of the service at December 31,2011 Users of the service at December 3		% increase 2012/2011
121,000	154,988	28.1%

160 Ratio between the number of electronic bill activations and the number of customers

Percentage at December 31,2011	Percentage at December 31, 2012	Percentage increase 2012/2011
5.9%	7.7%	1.8%

Thanks to **bollett@mail** over 800,000 bills a year are no longer sent by post, having a considerable positive effect on the environment from the standpoint of the consumption of paper and the use of means of transport for delivery. In addition, around 11% of all commercial communications are printed on recycled paper.

For customers who have not joined the **bollett@mail** service, A2A Energia and Aspem Energia use a **"certified" means of delivery**, which enables delivery to be tracked to end customers using a global positioning via satellite system that is able to record the date, time and place of the delivery of each individual bill. All contact center operators can check whether delivery has occurred in order to be able to provide customers with information about the delivery in real time This service has considerably reduced the number of complaints about the non-delivery of documents. The number of bills delivered by certified means as a proportion of the total number of bills sent by post reached 94.8% in 2012.

The use of the **read your own meter system** by consumers remained constant compared to the previous year: 345,456 readings were taken in this way, of which 112,965 were reported on line, 32.4% of the total.

In 2012 the process of replacing the old electro-mechanical meters with new **electronic meters** for electricity users continued in the province of Milan in 2012 (replacement has already been completed in the province of Brescia). At December 31, the number of meters installed represented 97.3% of supply with active contracts, while the number of remote-managed meters totalled 823,326.

ELECTRICITY AND GAS AT A REDUCED PRICE WITH THE SOCIAL BONUS

For people in difficult economic or social conditions A2A Energia provides specific "bonuses" for purchasing electricity and gas, as specified by the AEEG and in accordance with current legislation on social bonuses. These measures are designed to offset the costs incurred for the supply of energy and are reserved for domestic customers in need and those with household members who have serious problems of health and are kept alive by home-based electro-medical equipment. These bonuses, which are funded by the State and through the use of specific tariff components determined by the AEEG, are provided to all qualifying domestic customers who have made an application to the municipality in which they live for admission to the social tariff.

161 A2A Energia customers who have used the Social Bonus

	2010	2011	2012
Gas Bonus	21,644	18,942	21,715
Electricity Bonus	27,369	19,549	17,897

Channels of dialogue and customer assistance

Besides being a means of accounting for consumption, bills are also one of A2A's main contact channels with its customers. The sales companies of the A2A Group use bills to communicate important information by including messages in them or enclosing information leaflets with them.

But there are several channels for communication, dialogue and even meetings with customers that go beyond the bill. In order to ensure that all types of customer (domestic, commercial, industrial, etc.) receive the highest level of assistance for all of their needs, A2A puts the following services at their disposal:

- desks available to the public throughout the local area;
- call centers accessible through operators at toll-free numbers during office hours;
- interactive automatic answering services, available round the clock;
- dealing with communications arriving in hard copy/fax/email form;
- online desks on the commercial websites.



To find out more about A2A's services follow the link to the website:

www.azaenergia.eu, www.asmea.it, www.aspemenergia.it, www.tidoenergie.it, www.basomniservizi.it

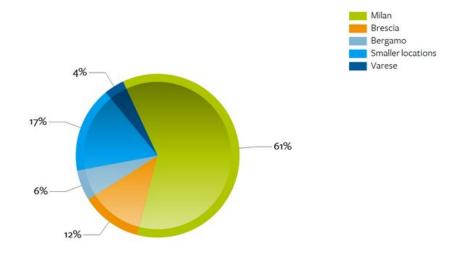
In certain cases, for example when promoting new commercial offers, direct communication channels are used such as direct mailing, the organisation of local events or other targeted initiatives directed at the Group's customers.

The city desk continues to be open all day on Wednesdays (a service which has been operational since April 2011) following an agreement reached with the prefecture; a large number of desks throughout the local area are also open to the public at the same time.

Specific **desks for free market contracts** using dedicated operators have been operating since 2011 with the aim of promoting sales with domestic customers; these ensure that customers receive an accurate and detailed illustration of the offers available, as well as establishing a direct and transparent relationship.

The sales desks of the Group's companies received approximately 320,000 visitors⁽¹⁾ in 2012 with an average waiting time of 21 minutes 28 seconds⁽²⁾.

162 Desks - customers served by province



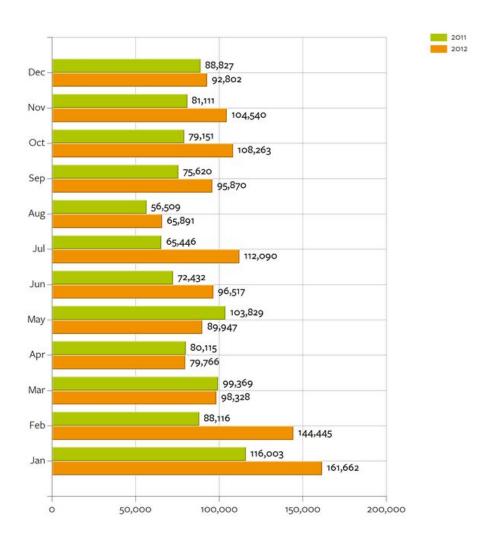
Corners **for free market contracts** in the showrooms in Milan and Brescia have been operational since 2011, and to these has been added the one to be found at the customer desk in Vobarno (BS). The aim of these corners is to provide information to customers about the opportunities provided by the liberalisation process and promote commercial action directly with domestic customers, ensuring they receive a clearer description of the contents of commercial offers through a direct and transparent relationship. The corners are clearly identified and dedicated personnel have been trained in compliance with the commercial and consumer code of conduct.

An additional and important channel of communication available for customers consists of the **internet portals**. Emerging from the figures for access to the transactions carried out online and the bill-paying services is customer appreciation for this kind of service provided by the A2A Group. In 2012 registrations on the internet portal with respect to "base customers" amounted to 15.3%, representing an increase of one percentage point over the previous year.

¹ Including the cash desks in Milan

² Waiting time measured for commercial services

163 Visits to the commercial website



The **customer assistance** service is provided on the basis of equality, impartiality, continuity and efficiency. The service is guaranteed for residents throughout the specific area and the rules determining the customer-supplier relationship are equal for everyone. A2A is careful to ensure that it provides the best conditions to ensure that every customer has equal access to the services, thus overcoming any cultural, language or disability barriers. The A2A Group has undertaken a whole series of initiatives in this respect, such as:

- availability of multilingual information leaflets at the commercial desks of A2A Energia;
- operators capable of dealing with multilingual relations;
- availability of DPS telephones (telephone devices for the hard of hearing) at the service of call centres;
- desks with **priority access** for people with specific needs (the disabled, pregnant women, the elderly and the needy);
- bills issued in Braille for the visually impaired, which were further improved in 2012 with a parallel text in **black/braille** to make it easier for accompanying persons to read the bill.

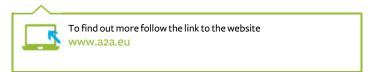
WATCH OUT FOR FRAUD!

A2A is especially committed to ensuring that the customer receives a service that provides the maximum in terms of transparency and correctness. The discovery of commercial practices being carried out by competitors to the detriment of A2A Energia's customers, providing false and deceptive information having the sole aim of making customers sign a supply contract even if they are not fully aware of what they are doing, has led the company to request the consumers' associations and the AEEG to keep a careful watch on the situation and to take steps designed to prevent unfair practices. With this in mind, on November 17, 2011 an agreement was signed setting up the "Observatory on unfair commercial practice", a body which is currently composed of A2A Energia and Aspem Energia and the associations ACU-Associazione Consumatori Utenti, Casa del Consumatore, Codici-Centro per i Diritti del Cittadino, Lega Consumatori and Coniacut. The Observatory is open to any other association and/or sales company which may be interested in joining in the future. The aim of the Observatory is to protect and inform customers through dedicated campaigns and initiatives about the spreading of unfair commercial practices and the potential costs for users (regarding activation and switching of supply), establishing guidelines for the proper preparation of contracts, constantly monitoring reported or detected cases and identifying the ways in which penalties should be inflicted. In February 2012 Aspem Energia also joined the agreement and a seminar was held with the AEEG and Single Buyer present. In addition, the Electricity and Gas Authority has published Resolution no. 153/12 on the subject, and a "framework protocol of understanding" was signed on September 13, 2012 with the antitrust authority to initiate mutual collaboration on unfair practices and to undertake joint initiatives to protect consumers.

On September 4, 2012, the Observatory, in conjunction with A2A Energia, started up an "anti-fraud" toll-free service available at the number 800.912.760 which is open from Monday to Friday between 9.00 a.m. and 3.00 p.m. to allow customers to report any matters regarding this practice. The aim of the service is to protect customers by providing information and legal assistance to anyone who may be the victim of deceitful or aggressive behaviour by other electricity suppliers. Over 300 reports were made in 2012 using the toll-free number or as part of the monitoring activity carried out by the consumers' associations who are members of the Observatory; in many cases these went beyond unfair action directed mainly at A2A Energia's customers, but also involved harm to the Group's reputation as the result of improper or unfair references to the "A2A" name.

At the same time A2A Energia also received reports of unfair commercial practice through its own channels and a total of 114 cases were recorded in 2012.

A2A Energia has already taken steps for the future by signing a self-regulation protocol in March 2013 which will become effective in April 2013.



Quality of the electricity and gas service

The A2A Group has a constant commitment to the quality of the service provided to its customers: the Quality Management System is applicable to all of the services provided by A2A Energia and is in use at all the main locations where the company operates. A2A Energia obtained **ISO 9001certification** again in 2012, with validation being carried out by an internationally recognised outside certification body and no noncompliance matters noted.

Specific emphasis is placed on the services that represent a channel of direct contact with customers, such

as call centres, local sales desks, internet services, sales services, marketing and assistance, which A2A considers critical success factors for satisfying customers and gaining their loyalty over time.

As part of the Quality Management System, A2A Energia has a procedure to monitor "non-compliance" which extends to the solution to the problem and, in certain cases, provides for the setting up of corrective and/or preventive measures regarding possible future events. As far as marketing activities are concerned, no cases of "non-compliance" were found relating to 2012.

For its **call centre services**, A2A Energia keeps to the quality standards established and monitored by the Electricity and Gas Authority and provides levels of quality that go well beyond these; the same is true of Aspem Energia, although the company not subject to mandatory monitoring. The analysed parameters concern the simplicity of the automatic answering system, opening hours, the fact that calls are free of charge for customers (at least from the landline network) and the information provided to customers on service accessibility data. In addition, the AEEG has set standards for accessibility and service levels (the percentage of successful calls) and for the average waiting time on the telephone. The data for the activities of the call centers for the first half of 2012, officially measured by the AEEG for companies between operators in the sector, confirm the **high performance levels of A2A Group companies**. In 2012 over 1,200,000 calls were dealt with by persons expert in gas and electricity services.

164 Quality levels of the call center services*

Indicators analysed by the Electricity and Gas Authority	Mininum Standards		A2A Energia			ASPEM ENERGIA*		
		2010	2011	2012	2010	2011	2012	
Percentage of successful calls	>=80%	97.0%	98.6%	98.0%	98.0%	98.0%	90.4%	
Accessibility of the lines and the service (free line time compared to the time when the operator is present)	>=80%	100%	100%	100%	99.0%	99.0%	99.6%	
Average waiting time on the telephone (seconds)	<=240%	81	79	91	6	20	36	

st Aspem Energia is not required to monitor the data as it has fewer than 50,000 customers.

CHIARA2A - A2A ENERGIA'S LOYALTY SCHEME

A new loyalty scheme for A2A Energia's domestic **customers** was introduced in 2012. This scheme consists of collecting points which can then be converted into spending vouchers or used to obtain benefits and discounts with over 400 partners throughout the local area. The holder of a free market electricity or natural gas supply contract for domestic use can join this scheme free of charge by calling the toll-free number 800.098.790 or filling out the form which is attached to bills and also available on the website www.chiara2a.eu. Members of this scheme receive their Chiara2a card directly at home and can benefit from the advantages reserved to them by using it in shops which have joined the scheme. The scheme rewards certain forms of 'virtuous' behaviour with an accumulation of points; these include communicating gas meter readings,



activating the electric billing scheme and accessing online services. Almost 60 thousand people were members of the Chiaraza scheme at December 31, 2012.



Customer satisfaction

A2A Energia achieves **levels of excellence on the protected market in terms of customer satisfaction**, as confirmed by the 2012 survey performed by the Energy Observatory of the Databank-Cerved Group. This survey was conducted on a sample of gas and electricity customers in the Milan and Brescia areas, who were separated into domestic, self-employed and small and medium enterprise customers, with the data obtained then being compared to the main operators in the sector. **A2A Energia was ranked 1st among its main competitors for both gas and electricity, 2nd for domestic customers and 2nd in the self-employed and small and medium enterprise segment**, obtaining special appreciation for the "availability of contact channels for easy communication with the Group" and its "ability to solve customer problems and requests". The survey carried out by the Cerved Group forms part of a programme for monitoring A2A Energia's services and sales channels which the company has introduced over the past few years with the aim of obtaining constant feedback from its customers and measuring the level of perceived satisfaction.

165 Customer satisfaction - protected market*

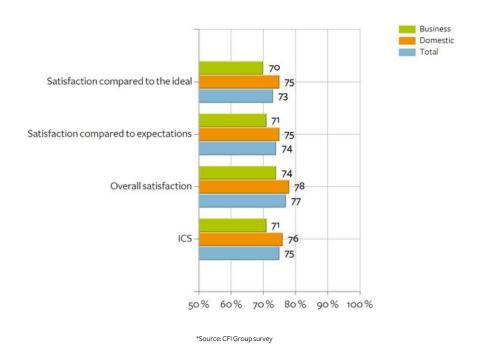
_										
		2010			2011			2012		
	Type of customer	A2A Energia customer satisfaction	Sector average	A2A' position out of all company examined	A2A Energia customer satisfaction	Sector average	A2A' position out of all company examined	A2A Energia customer satisfaction	Sector average	A2A' position out of all company examined
	Domestic	93.5	90.3	1 ^a su 8	93.1	88.0	1 ^a su 9	91.7	87.1	1 ^a su 9
Gas	Self-employed and SMEs	93.5	89.0	1 ^a su 6	88.6	85.2	1 ^a su 9	87.9	84.3	2 ^a su 6
	Domestic	93.7	92.2	3 ^a su 8	91.0	89.6	3 ^a su 11	92.0	87.2	1 ^a su 9
Electricity	Self-employed and SMEs	93.4	87.9	2 ^a su 9	89.3	84.8	2 ^a su 11	92.0	80.8	2 ^a su 10

^{*}Source: Energy Observatory of the Databank-Cerved Group.

The first survey of the level of perceived satisfaction and service quality was carried out in 2012 using a CATI survey and a sample of 1,500 free market domestic and micro-business customers supplied with electricity and gas.

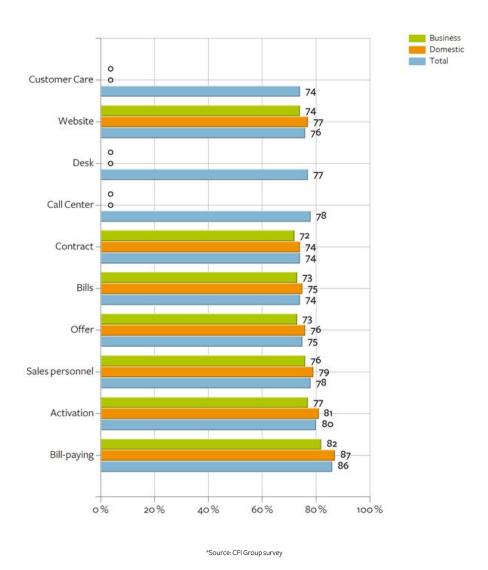
On the free market A2A Energia's customers expressed a decidedly good level of satisfaction (constantly exceeding 70%) in terms of overall satisfaction with the service supplied and satisfaction compared to expectations and theoretical "ideal" service standards, as emerges from the survey carried out by the CFI Group in 2012 on a sample of domestic and micro-business customers.

166 Customer satisfactino - free market*



According to the same survey conducted by the CFI Group, **customer satisfaction** relating to numerous aspects of the service **was more than good on the free market and close to excellent for the domestic segment**. The perceived standard was very high in terms of sales channels and offers and with regard to the contact channels (*call centers, desks, customer care, website*).

167 Customer satisfaction - free market*



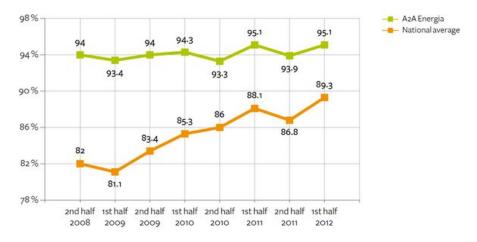
For the sale of energy and gas, A2A plans to carry out two customer satisfaction surveys a year (in addition to those planned by the AEEG for the call centers) and work is taking place on the possibility of **extending the customer satisfaction survey to a sample of large-scale customers** handled by the direct sales network.

Customer satisfaction is also measured and monitored on specific subjects, with customer lists and questionnaires being drawn up internally and then passed to a specialised company for uploading and despatch via its online survey platform. Surveys on the following matters were conducted in 2012:

- June Web pages dedicated to the Chiara2a Programme
- October Online services provided through the "www.azaenergia.eu" and www.asmea.it" portals.

The level of customer satisfaction on the way in which A2A Energia's call centers work is very high and decisively above the national average. Since 2008 the Electricity and Gas Authority (AEEG) has been conducting six-monthly surveys into the quality of commercial telephone services as perceived by energy end customers who use the call centers of sales companies with more than 50,000 customers. In the first half of 2012 A2A Energia's customers once again confirmed their appreciation for the company's call

center service. The general satisfaction index was 95.1%, in line with the first half of the previous year and representing an increase of 1.2% over the second half, and as always well above the national average. In further detail, especially positive were the figures relating to the ability to resolve questions swiftly (+10% over the national average), the clarity of answers (+7% over the national average) and the politeness of operators (almost 99%).



*Source: Electricity and Gas Authority (AEEG)

Safety of the service

Customers can report any unusual matters or breakdowns in the electricity or gas service by using a toll-free number at any time round the clock 365 days a year. If gas leaks are noticed on plant owned or managed by an end customer downstream from the delivery point, the company may suspend or cut-off the supply to ensure public safety until the end customer has resolved the problem of the leak and documented that the equipment is working properly. In the case that supply is suspended in an emergency situation the request for the supply to be reinstated must follow a specific procedure.

SMART GRID

The "Climate/Environment 20/20/20 Package" or "Green Package" programme sets itself the target of reducing the emissions of carbon dioxide, increasing the use of non-polluting renewable energy sources and limiting the waste and consumption of energy produced from primary sources such as fossil fuels. To this end A2A has introduced "active network" systems distribute on a capillary basis throughout the country and linked to numerous points of energy produced from renewable sources. These networks known as Smart Grids replace the "passive networks" with their unidirectional distribution of energy from the production plant to the final user.

INTEGRIS Project

The INTEGRIS project is a project that is co-financed by the European Commission as part of the Seventh Framework Programme. Within the Consortium A2A had the task of establishing the scenario of evolution towards Smart Grids and the system's requirements and, above all, of coordinating demonstration activities in the field of its own real network and at two other test sites. The aim of the project was to design and build an ICT infrastructure to support the Smart Grids, which among other things envisage the use of several innovative communication carriers (broadband power line carriers, WiFi, Optical Fiber, tec.) to overcome the limitations and costs of current technologies (GSM). The project has just been completed successfully and projects for further developing the solution are currently being set up.

Smart Domo Grid Project

This is a research and development project co-financed by the Ministry of Economic Development which sees A2A as the leader and the Milan Polytechnic (Department of Energy) and Whirlpool as partners. The object of this project is the "design", creation and introduction of a Smart Grid solution with demand/response functionality for creating intelligent interaction between the distributor's electricity network and EMS (Energy Management System) devices controlling domestic equipment (intelligent household appliances, micro-generation equipment, electric cars, etc.) and distributed energy accumulation devices designed to improve the quality of the voltage. It is planned to introduce a pilot scheme in a quarter of Brescia involving a few dozen households. The solution is also extendable to Milan.

ECCOFLOW European Project

This project is co-financed by the European Commission; it consists of the design, installation and field testing of Superconducting Fault Current Limiter (SFCL) devices for application in medium-voltage distribution networks. The aim is to assess the effectiveness and hence the applicative potentiality of this new class of power device, whose use encourages the development of distributed generation and enables the quality of the voltage to be improved.

Projects for AEEG Resolution no. ARG/elt 39/10

A2A has obtained a grant from the AEEG for two Smart Grid projects. The first regards a primary cabin in Milan (Lambrate) and the second a primary cabin in Brescia (Gavardo) with different characteristics in the underlying network. Both set out to overcome the present limitations of the interface protection of generators connected to the medium-voltage grid, to introduce innovative voltage regulation functionalities and, potentially, to carry out local despatch, only reporting summarised data to Terna of the production put into the medium-voltage grid. This will encourage the development of distributed generation and hence the use of renewable sources for the production of electricity.

The WFM and DMS Projects

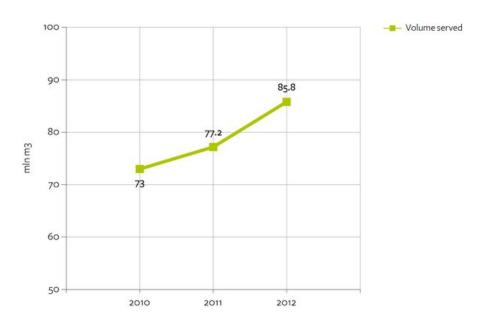
The development of Smart Grids can only be achieved if the technological evolution of the devices in the field is accompanied by an evolution in the processes for the operational management of the network. For this reason A2A is taking forward a whole series of innovation projects, of which the following are the most important:

- The Work Force Management (WFM) system, which has the objective of integrating asset management systems, the geographic information system (GIS) and GPS technology for pinpointing plants and operating teams available throughout the area, equipped with field devices, in order to achieve a more effective and efficient management of the interventions made.
- The Distribution Management System (DMS), which consists of the evolution of Supervisory Control and Data Acquisition (SCADA) network remote control and automation systems and which will in fact be the "brain" of A2A's future Smart Grid.

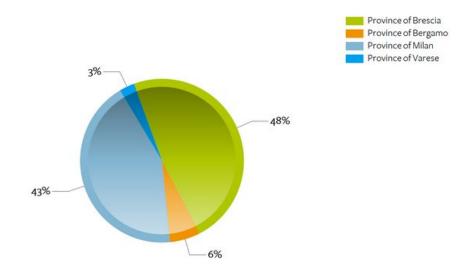
5.2.2 District heating and heat management

A2A's activities include the production, distribution and sale of heat in Milan, Brescia, Bergamo and Varese and in a number of municipalities in the Brescia and Milan hinterland through A2A Calore & Servizi and Varese Risorse. The service is provided to over 23,500 users (individual residential units in the case of independent heating or whole buildings in the case of centralised heating), for a total served volume of 85.8 million cubic metres (+8.6 million cubic metres over 2011).

168 Volume served by the district heating network



169 Geographical distribution fo the volume served by district heating



For further information on the district heating development plan see the section "Environmental responsibility" on page 57.

A2A Calore & Servizi also has specific skills in rationalising the energy management of buildings through measures to improve efficiency, such as:

- the conversion of heating plants fuelled by liquid fuels to methane;
- the "District heating is on its way" leaflet for residents, delivered directly to their homes;
- notices that worksites are about to be started up delivered two weeks before the start of work and sent to all residents and owners of commercial activities;
- the "Choose district heating" commercial leaflet for residents, delivered directly to their homes.

In 2012 A2A Calore & Servizi sent out 230 letters to administrators and 5,750 "District heating is on its way" leaflets, placed 10,450 work site notices and sent out 4,100 "Choose district heating" leaflets.

Notices of work sites and the corresponding layout are punctually published in the section "Work in progress" on A2A Calore & Servizi's website to enable residents to keep constantly updated about developments in the district heating service in their city. In addition, a toll-free number is available (from Monday to Friday) for obtaining information and reporting other matters.

During the year A2A Calore & Servizi took part in fairs and events ("Do the right thing" in Milan, "The Environment Festival" and the "Trade Fair" in Bergamo) and organised visits to district heating production plants for condominium administrators and their representatives, as well as courses for sub-plant technicians.

Quality of the district heating service

The two Group district heating companies, A2A Calore & Servizi and Varese Risorse, provide a service for which they guarantee quality, precision and punctuality and energy saving.

A2A Calore & Servizi monitors and measures the specifications of the services to keep a constant check on compliance with the specifications defined in technical, commercial, quality, environmental and safety terms.

Energy yields of the machinery at the plant Specific consumption Use of renewable sources Energy saving indices Quantity of atmospheric emissions Use of raw materials Technical faults connected with contractual management COMMERCIAL QUALITY INDICATORS Times of arrival for emergency calls in the management of contracts Completion of estimates during the offering stage Completion of projects for network extension Completion of connection to the district heating network Connections to the district heating network not completed and postponed

The indicators are monitored by the persons in charge and are subsequently checked in the Quality, Environment and Safety Committee.

Varese Risorse manages the quality of its service through supply contracts entered into with its customers (which contain service features and parameters) and, in accordance with the ISO 9001 management system, also monitors the following parameters: timeliness of billing, timeliness of scheduled maintenance, annual personnel training hours, number of complaints, number of reports for faults, intervention times for special requests.

Safety of the district heating system

With the district heating system the boiler is replaced by a simple heat exchanger by means of which heat is transferred to the building's internal distribution equipment, which remains unchanged. This translates into

increased plant safety and efficiency, since district heating guarantees:

- no combustion and no open flames in the boiler room;
- the elimination of boilers, tanks and flues;
- no dangers of gas leaks or poor combustion and no risks that a fire might break out;
- ease of management and maintenance;
- the enhancement and longer life of equipment.



For more information on the benefits of district heating see the website

www.a2acaloreservizi.eu

Rigorous controls are carried out in connection with the way sites are managed for infrastructure construction and network and plant extension work, as well as for subcontracted maintenance, to ensure that the work commissioned has actually been performed, that the timetable has been adhered to, that the agreed materials have been used and that the requested testing has been carried out, together with everything else included in the contract specifications.

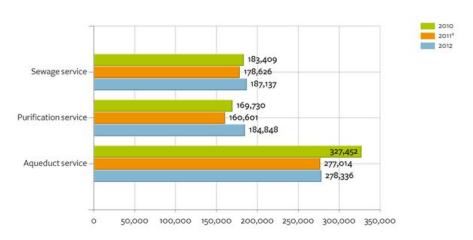
For further details also see the section "Sustainable management of the sector and certifications required" on page 194.

5.2.3 Integrated water service

The integrated water service in A2A is run by A2A Ciclo Idrico which operates in Brescia and province and serves 80 municipalities as far as both the aqueduct service and the sewage and purification service are concerned. The subsidiary Aspem distributes drinking water in Varese and in 37 municipalities in the province.

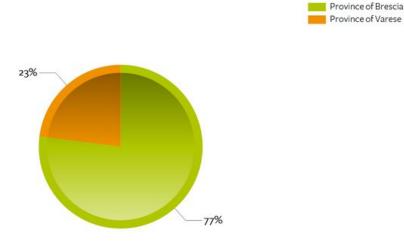
There was a considerable increase in the number of users of the purification service (+15%) and the sewage service (+4.8%) in 2012 compared to 2011, while the number of users of the aqueduct service remained more or less constant (+0.5%).

170 Integrated water service users



^{*}The fall in the number of users over 2010 is due to the sale of the company BAS Servizi Idrici Integrati which was previously operative in Bergamo and province.

171 Geographical distribution of acqueduct service users

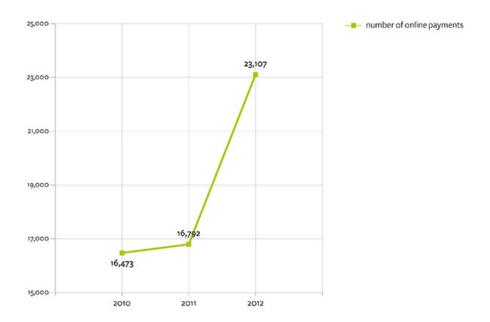


Customer dialogue channels and assistance

A2A Ciclo Idrico makes available to its customers **numerous counters spread throughout the local area and a permanently accessible online desk** for carrying out commercial operations and requesting information. It is also possible to contact the company using a **dedicated toll-free number** available from Monday to Friday between 8.30 a.m. and 5.00 p.m..

A total of 1,352 customers activated the electronic bill service in 2012.

172 Online esk services for A2A Ciclo idrico - Online payments



The A2A Ciclo Idrico call center continued to achieve very high quality levels in 2012, with 97.4% of calls being successful and a waiting time never exceeding 24 seconds.

THE "TRANSPARENT BILL" PROJECT

A2A has joined a project which was set up in 2011 on the initiative of the Lombardy region and involves the collaboration of 16 Lombardy consumers' associations to draw up a **new bill for the water service: clear, simple and easy to read**. Work on this continued in 2012 and in October led to the presentation of guidelines for preparing a new standard bill.

Quality of the water service

The quality of the aqueduct, sewage and purification water services is **regulated for every company by a Charter of Services** which lays down the principles and criteria for achieving that quality and is an appendix to the supply contract.

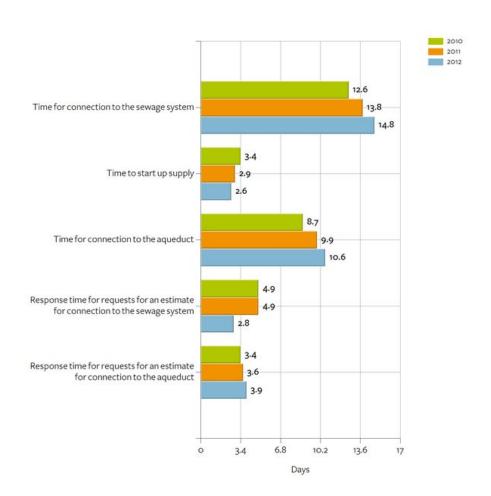
The A2A Ciclo Idrico promotion was also active in 2012. This envisages a contribution being given towards the costs incurred for transferring the water meter to the edge of the private property and a contribution given towards the costs incurred for purchasing a manometer. Insurance can also be taken out against water leaks (reserved for domestic users), which is proposed under extremely beneficial conditions. A round the clock "first aid" service is available for reporting any faults noted in the public sewerage system.

Aspem also offers insurance cover against the risk of hidden leaks of drinking water. Aspem's Aqueduct

Charter of Services ratifies the commitments which the company is committed to honouring with the customers who join, such as the methods and timing connected with providing estimates, making connections, turning the supply on or off, waiting at desks and replying to any customer requests or complaints.

The Information Service for the Supervision of the use of Water Resources (SiViRI), which became available in February 2010, identifies a series of indicators which provide information about the efficiency and effectiveness with which operators supply the integrated water service, the type of tariffs charged, how the tariff is structured and the extent to which the commitments included in the Ambit Plan are met.

173 Quality indicators of A2A Ciclo idrico service



Safety of the water service

Supplying quality water is one of the basic objectives of the Group companies providing the aqueduct service. For this reason qualitative checks are carried out on the whole production chain as required by law. The water put into the network is submitted to chlorocoverage and, where necessary, to chemical/physical treatment to ensure compliance with legal requirements. Controls on water intended for human consumption are regulated by Legislative Decree no. 31 of February 2, 2001, "Implementation of Directive 98/83/EC on the quality of water intended for human consumption". Samples are taken on a monthly basis at the treatment plants and at the network control points and on an annual basis at the procurement sources, or more frequently in the case of situations at risk, depending on the qualitative features of the water taken from a specific source. To these analyses are added other tests carried out directly by the local health authority (ASL) to ensure the maximum effectiveness of the testing.

In 2012 A2A Ciclo Idrico took 8,009 samples of drinking water, analysing 168,228 parameters.



The concentrations of the characteristic parameters of the water distributed may be found on the websites

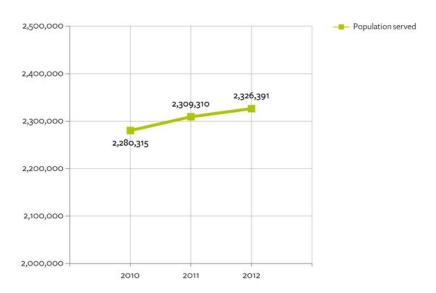
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5.2.4 Environmental services

Managing waste and the conversion of waste to energy is one of the activities in which the A2A Group excels, and the Group is the leader in this sector at a national level. The Group's new Business Plan sees the reorganisation of the environmental sector, with the formation of A2A Ambiente, as being one of the key points for achieving significant increases in efficiency and operating effectiveness on the market.

The urban hygiene service is currently performed by the subsidiaries Amsa (in Milan and province), Aprica (in Brescia and in the provinces of Brescia, Bergamo and Mantua) and Aspem (in Varese and province), with these companies covering 89 municipalities for a total of over 2.3 million residents served.

174 Urban hygiene service - Population served



In 2012, Aprica was awarded the tender for managing services in the municipality of Como and Amsa in the municipality of San Donato Milanese. In addition, as the result of a tender process which was completed at the end of December 2012, Aprica became the industrial shareholder of the company G.Eco, the leading operator for served residents of the province of Bergamo, and will directly carry out the treatment and recovery activity for waste collected in the 76 municipalities served.

To increase and improve the management of recyclable waste, on November 26, 2012 the **Municipality of Milan started separate collection of the wet fraction** from domestic users, involving around a quarter of the city, with the plan to extend this to the whole of Milan by the end of 2014. In Bergamo, Aprica initiated the differentiated collection of plastic packaging on November 5, 2012, while in Varese Aspem concentrated on a high-impact communication campaign to increase the percentage of differentiated waste collected.

For these activities also see the section "Environmental responsibility" on page 57.

Amsa and Aprica also provide customised services such as the removal of graffiti, asbestos removal and the collection of paper and cardboard for commercial and industrial use and use by craftworkers.

In the waste management and waste to energy sector, the A2A Group also has a presence through the companies Ecodeco and Partenope Ambiente.

Ecodeco specialises in the research into and the construction and the management of technologies, plants and processes for treating and disposing of waste by value enhancement. It provides a waste treatment and restoration service to customers on request and transfers technology for obtaining energy from the residual fraction of urban waste after differentiated collection (Sistema

Ecodeco®), building plants for non-Group companies. Approximately 700 municipalities and 1,300 businesses were served in 2012. Ecodeco **operates at both a national and European level**. In Italy it is present in Piedmont and Lombardy. A new ITS (Intelligent Transfer Station) plant was opened in 2012 in the Valtellina, at Cedrasco (Sondrio) for the fully automated management of waste using a mechanical-biological treatment. In addition to Italy, plants built with Ecodeco technology are currently operating in the United Kingdom, Greece and Spain.

Partenope Ambiente runs the Acerra waste to energy plant, which in 2012 worked at 100% of its production capacity processing 615 thousand tonnes of waste, as the result of which 552 million kilowatt hours of electricity were generated and put into the grid, equal to the annual needs of around 200 thousand households.

Channels of dialogue and assistance for customers

Amsa maintains a direct relationship with residents and customers by using **various channels**:

- an active round the clock **call center** with a toll-free number;
- a desk open to the public from Monday to Friday;
- an **online service** for booking the collection of bulky waste;
- **direct correspondence**, by traditional and electronic means.

The quality of the Amsa call center remained at a very good level in 2012, posting a slight increase over the previous year with 95% of calls being completed successfully and a waiting time of approximately 1 minute.

175 Quality levels of the Amsa call center

	2010	2011	2012
Percentage of successful calls	95%	94%	95%
Accessibility of the lines and the service (free line time compared to time when the operator is present)	100%	100%	100%
Average waiting time on the telephone (seconds)	70	59	61

Residents and customers make considerable use of direct correspondence, by traditional means and by email, for communicating with Amsa: **22,441 reports** of this kind were received in 2012 (+44% over 2011), mainly via email (+66%) and via the "Ambrogio" customer relationship system which is run through the Milan municipality police (+11%). On average 98% of reports were dealt with **within 4 days** (3 days for emails and 5 days for letters and faxes).

Aprica's customers can contact the company using a toll-free number or an online desk service, through which it is possible to request information and send reports and complaints. To reduce waiting time and make the service simpler and more efficient, a recorded voice describing the various options has been replaced by the direct response of an operator.

Aspem has a desk open to the public from Monday to Friday from 8.30 a.m. to 12.30 p.m. and dedicated numbers for the urban hygiene service which depend on the type of information requested. Approximately 20,000 customers were served at desks in 2012 (there is a single desk for all three services: aqueduct, urban hygiene and gas distribution).

In Ecodeco the direct relationship between the sales agent and the customer is the main contact channel.

In 2012 Ecodeco took part in a number of events of a commercial and technical and scientific nature, such as: ECOMONDO - the International Material and Energy Recovery and Sustainable Growth Fair held in Rimini in November and the World ISWA - International Solid Waste Association Congress which took place in Florence in September.

PULIAMO - A2A'S APP FOR THE ENVIRONMENT

Launched at the end of June 2012, the first (free of charge) mobile telephone application created by the A2A Group for the environment is called "*PULiamo*" and contains services and information which is useful for simplifying differentiated collection to a maximum and disposing of waste in the correct way, as well as for encouraging collaboration between the Group and residents for city cleaning. **This App was developed by A2A, Amsa, Aprica and Aspem.** This is an example of how



technological innovation can work alongside the community-based and environmental mindset of residents through the use of widely available devices such as smartphones and tablets.

Using the "**reports**" function people can notify the presence of abandoned waste, illegal landfills or full waste bins by simply photographing these and then sending through a message; measures can then be taken at the identified spot, which can be immediately pinpointed by locating the device through GPS. Bulky waste collection and graffiti removal services are also provided, as well as timetables for differentiated collection and street cleaning and the location of recycling equipment. "*PULiamo*" also includes "**dovelobutto**", a search engine for discovering how to dispose of all types of waste and "**ultima ora**", which contains useful information on services and news about the activities performed by the Group's environmental hygiene companies.

Quality of the environmental services

Amsa and Aprica govern the service provided to residents by means of a **Charter of Services**, which describes the services provided and the means by which the company ensures their quality.

Meetings were held with consumers' associations and the Municipality of Milan throughout 2012 to draw up the new **Amsa** Charter of Services, which will be presented in 2013.

Aprica on the other hand published its new Charter of Services for the Municipality of Bergamo in June 2012.



Aprica's Charter of Services for the Municipality of Bergamo can be downloaded from the following website www.apricaspa.it/gruppo/cms/aprica/comunicazione/pubblicazioni/

For **Aspem** the urban hygiene service is governed by the Municipality of Varese's urban hygiene service regulation.

In Ecodeco the service is governed by the contract entered into with each individual customer. Quarterly meetings are held in the company designed to assess customer relationships with the aim of drawing up any improvement plans that may be necessary. In order to ensure a constantly high level of service, a series of performance indicators have been identified which are designed to monitor turnover, offers and budgets by "Commercial Services" Operating Unit; a new waste management software application has been introduced which began to be applied in 2013; visits were made to the plants of customers receiving waste and the compliance of these with the set requirements was assessed; meetings were held with business sector associations; price lists were drawn up for meeting specific requests; and special packages for craftworkers were created.

Customer satisfaction

Amsa carries out an annual check on the quality of the service it provides to residents by conducting a **customer satisfaction** survey. In 2012 this survey concentrated on waste collection services, street cleaning services, special services and services on request and relations with residents.

The survey covered the municipality of Milan and the neighbouring municipalities served by the company. Telephone interviews were carried out with 1,000 families living in the municipality of Milan. The **overall average score given to the service was 7.12** (on a scale of 1 to 10). Street cleaning was the most important element in people's opinion, followed by the *overall organisation of waste collection*, the frequency with which roads and pavements are cleaned and the means by which the street and pavement service is organised.

The average score for the urban waste collection service was 7.94, an increase over 2011 in particular relating to:

- overall organisation of waste collection;
- hours when waste is put out;
- collection hours and noise caused by the bin-emptying service.

A survey on satisfaction levels was also carried out on a sample of 200 commercial operators in the municipality of Milan and 500 residents of the other municipalities in which Amsa operates; the scores given by these two groups were 7.07 and 7.49 respectively.

Ecodeco carries out a two-yearly customer satisfaction analysis for two types of service: waste disposal and engineering. This analysis is performed by using a questionnaire which requires giving scores from 1 (could be improved) to 5 (very satisfactory) on the following aspects:

- for the waste collection service: initial contact, information received, documentation, quality of the service for waste collection and the destination plant;
- for the engineering service: initial contact, documentation, job management, assistance and quality of the service

The latest survey was carried out for 2011-2012 for both services.

The waste disposal service received an average score of almost 4 for all types of question. The highest scores were given for the *skill and politeness of the commercial technicians*, the *clarity of the information received* and the *reliability and punctuality in carrying out the services*. The lowest scores (which in any case were above 3) were given for the *price of the service* and the *response time for providing estimates and any explanations*, as well as for the *clarity of the information received* during the initial contact stage.

5.2.5 Managing claims and disputes

Managing customer claims

In 2012 **A2A** extended the range for monitoring written claims in the various Group companies; 4,394 written claims were recorded by the whole of the A2A Group (excluding Selene).

A2A Energia monitors verbal and written claims and puts specific forms attached to the contract for all new customers at the disposal of customers; these forms may also be obtained at the Group's desks and on its website. Verbal claims are dealt with directly by the individual call centre operators, while written claims are handled by a specialised structure. Complaint management is regulated on the basis of the service levels set by the Electricity and Gas Authority, which defines a complaint as "a communication presented in writing by a customer". The Integrated Consolidated Regulation on Sales Quality (TIQV) establishes the time for providing replies to written complaints as 40 days from receipt, obliging the supplier of the service to pay an automatic penalty to customers if standards have not been met.

The number of written complaints received, 2,833, is extremely low as a percentage of the number of electricity and gas customers (0.14 claims per customer). An analysis of the reasons for making complaints shows that approximately two thirds are due to:

- problems with the issuing and delivery of bills;
- disputes about usage;
- contractual issues;
- disputes about charges not directly connected with usage.

All the complaints received by **A2A Calore & Servizi** are numbered and recorded and monitored in accordance with a specific procedure, and the time taken to deal with complaints is similarly monitored. The reasons for complaints are analysed and combined together by type, so that the most frequent weaknesses reported may be identified and the necessary corrective action be taken on a systemic basis. Only one complaint was received in 2012 (which moreover turned out to be unfounded) which regarded the safety and well-being of residents.

In Aprica complaints are recorded and managed by the internal coordination committees.

In **Amsa**, any complaints regarding the failure to comply with the contents of the Charter of Services are handed to Customer Services. A procedure specifies that the resident must be informed about the checks made in the shortest time possible (and in any case not later than 30 days), together with the period within which the company will arrange to eliminate the irregularity encountered and repair any damage that may have been caused. Eight claims were received during 2012 on customer health and safety, relating to reports of improper driving behaviour by drivers of the company's vehicles.

In **Aspem** any written complaints received from end customers are numbered and recorded and forwarded to the department in charge. Every two weeks the Company Secretariat and General Affairs Office sends a copy of the list of complaints to the Communications and External Relations Office, which every six months produces a report of the written claims, indicating whether those complaints gave rise to corrective measures or corrective or preventative action of a permanent nature.

In A2A Ciclo Idrico the office in charge of complaints sends data to the members of the Quality Committee, on a quarterly basis, regarding the number and type of written complaints received and the response time. These parameters are constantly monitored and are used as a basis for calculating a specific performance indicator.

Managing complaints regarding roadworks

The protection of the city dweller and the minimisation of the disturbance which may be caused in the case of digging and pipe-laying activities is one of the fixed points in the way in which the A2A Group works. To this end, the methods adopted by the Group in dealing with roadworks are the least intrusive possible and include the following among others: the commitment not to carry out any night work (other than in exceptional cases), to use soundproofed equipment, to provide accurate and capillary information in the areas where the work is taking place and to deal with any complaints or reports from residents and road users in a careful manner In the case of subcontracted work, external persons other than the subcontractor are engaged to carry out checks on the road works, to ensure an unbiased opinion, with the engagement for checking the road works kept separate from the safety coordination engagement (as required by Legislative Decree no. 81/08).

Matters regarding street problems were reported in 2012 mostly through the CRM "Ambrogio" portal, an innovative technological system developed by Telecom S.p.A. for the Municipality of Milan by which, through the use of hand-held mobile phones and smartphones provided to city policemen (the "on the beat policemen"), road inspectors and city district committees, reports are sent in real time directly to one single municipal focus point, which then sorts them into areas of responsibility with a saving of both time and paper. The matters raised most frequently in the reports are those classified as "components" (mainly IP lighting points which are not working or damaged street cabins) and "potholes/manholes". The most frequent causes of complaint arising from road works regard delays in restoration work or restoration work that has not been performed properly or has deteriorated before its time. In November 2012, A2A Reti Elettriche handed over the management of these reports to A2A Servizi alla Distribuzione, which is introducing a tracking system on a specific database with the aim of monitoring the reports received and how the problems have been resolved.

Litigation with customers/residents

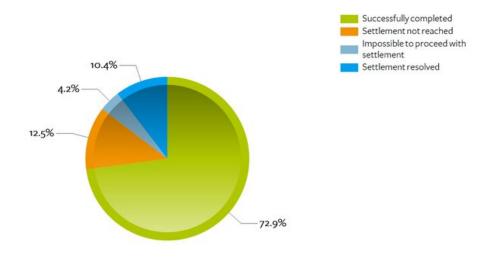
Forty cases of litigation were pending at the end of 2012 regarding relations with customers of the various services offered by the Group. Of these, 19 related to the amounts or usage of gas and electricity charges and 13 to compensation of various kinds. There were 22 pending legal cases with residents in the same period: 9 regarding compensation claimed for damage to things, 6 regarding compensation for slight injuries suffered by individual residents when work was carried out by or on behalf of Group companies, 6 regarding alleged violations of residents' property rights and one regarding a fatal road accident in which a service car was involved which was being driven by an employee of the company which at the time was AEM S.p.A..

JOINT SETTLEMENT PROCEDURE: AN ADDITIONAL RIGHT FOR A₂A CUSTOMERS

The Joint Settlement Procedure has been in place since 2010 to facilitate the swift resolution of any disputes with customers. Seventeen consumers' associations have joined this project, initially called for by A2A, and these were then followed by the Business Confederations.

The A2A Group company Aspem Energia joined the scheme on January 1, 2012. This is a simple and quick way of resolving problems and disputes relating to the supply of electricity and gas without the need to use a court of law. Access to the settlement procedure is free and may be started up through one of the consumer associations which signed the agreement or by completing the settlement application form available online on the Group's website or at the commercial desks of A2A Energia and Aspem Energia.

In 2012 A2A Energia was involved in 48 settlement requests, mainly relating to bills with unusual amounts (88%), takeover problems (6%) and the recalculation of consumption (6%). Aspem Energia received no requests during the year.



5.2.6 Tables: customer numbers

Marketing of electricity and gas

176 Number of supply points for the electricity service

Type of supply	Total						
	2010	2011	2012				
Domestic	833,931	828,419	812,290				
SMEs	148,514	142,108	135,406				
Large customers	27,212	26,888	33,420				
Condominiums	26,789	26,184	26,862				
Total	1,036,446	1,023,599	1,007,978				

177 Number of supply points for teh gas service

Type of supply	Total			
	2010	2011	2012	
Domestic	1,138,238	1,116,741	1,097,240	
SMEs	63,785	61,102	57,752	
Large customers	7,297	6,983	6,188	
Condominiums	10,722	10,742	10,542	
Total	1,220,042	1,195,568	1,171,722	

178 Electricity sypply contracts by type of market

	2011	2012	
Protected market	907,047	876,486	
Free market	116,552	131,492	
Total	1,023,599	1,007,978	

179 Gas supply contracts by type of market

	2011	2012
Protected market	1,130,551	1,105,203
Free market	65,017	66,519
Total	1,195,568	1,171,722

180 Average spending on electricity by an averate household

Protected market - Resident domestic use - Deployed power 3 kW - Annual consumption 2,700 KWh	2011	2012
Sales services (euro)	255,16	288,51
Network services (euro)	119,62	147,82
Taxes (euro)	22,39	21,79
VAT (euro)	39,72	45,81
Total (euro)	436,89	503,93

181 Average spending on gas by an averate household

Protected market - Independent heating - Annual consumption 1,400 cm	2011	2012
Sales services (euro)	522.46	630.61
Network services (euro)	205.89	214.83
Taxes (euro)	231.15	231.16
VAT (euro)	171.32	191.20
Total (euro)	1,130.82	1,267.80

182 Transaction carried out online

	2011	2012
Number of online self-readings	121,128	112,965
Total self-readings	339,542	348,456
% of total self-readings	35.67%	32.42%

183 Customer satisfaction with the call center -AEEG survey

	1st half 2011		1st half 2012			
AEEG survey (% net satisfied customers)	A2A Energia	Total (national average)	Difference	A2A Energia	Total (national average)	Difference
Time taken to find the line free	97.3	92.8	4.5	96.3	93.2	3.1
Simplicity of the automatic answering system for being able to speak with the operator	92.4	92.2	0.2	89.1	92.7	-3.6
Waiting time to speak with the operator	97.9	93.0	4.9	97.4	92.5	4.9
Politeness of operators	98.7	96.2	2.5	98.9	96.3	2.6
Clarity of answers	97.0	90.6	6.4	97.2	90.6	6.6
Ability to resolve the problem in the shortest time possible	95.5	83.7	11.8	95.0	84.9	10.1
ICS (PSC) indicator - customer satisfaction index	95.1	88.1	7.0	95.1	89.3	5.8

184 Trends in electricity and gas claims

	2010	2011	2012
Number of complaints	2,927	2,588	2,833
% simple complaints on the average number of customers	0.14%	0.13%	0.14%

The Electricity and Gas Authority (AEEG) defines "simple complaints" as complaints which are the exclusive responsibility of the seller and for which preparing a reply does not entail obtaining data that are the responsibility of the distribution company.

185 Techincal quality of the electricity production process

		Average availability factor (%)			
Type of energy source	2010	2011	2012		
Traditional - coal	86%	85%	98%		
Traditional - heavy fuel oil	84%	48%	49%		
Natural gas - combined cycle	80%	76%	71%		
Hydroelectric - flowing	76%	84%	89%		
Hydroelectric - dams	86%	82%	86%		
Hydroelectric - reservoirs	79%	69%	84%		

Electricity and gas distribution

186 Extension of the electricity distribution service

	2010	2011	2012	
Km of electricity network	12,689	12,815	13,052	
- of which underground cable	n/a	10,732	10,905	
Users connected	1,112,985	1,129,194	1,115,157	
Municipalities served	52	52	54	

187 Users of the electricity distribution service by geographical area

	2010	2011	2012	
Lombardy	1,112,985	1,129,194	1,115,241	
of which Milan	n/a	883,694	881,906	
of which Brescia	n/a	245,500	233,251	
Other North Italian regions	0	0	0	
The rest of Italy	0	0	0	

188 Extension of the gas distribution service

	2010	2011	2012	
Km of gas network	8,480	8,067	7,980	
End users connected	1,388,654	1,367,405	1,344,373	
Municipalities served	213	213	206	

189 Users of the electricity distribution service by geographical area

		TOTALE			
	2010	2010 2011			
Lombardy	1,347,474	1,323,765	1,288,106		
Other North Italian regions	13,094	14,044	27,427		
The rest of Italy	28,086	29,596	28,840		

 $Note: A2A\ owns\ around\ 400\ km\ of\ high\ and\ medium\ pressure\ gas\ transportation\ network\ through\ the\ company\ Retragas,\ covering\ a\ total\ of\ 68\ municipalities.$

190 Technical quality - electricity

		Milan										
	High o	concentra	tion envi	ronment	Mediun	n concent	ration env	/ironment	Low	oncentra	tion envir	onment
Service continuity indicator	2010	2011	2012	AEEG objective 2012	2010	2011	2012	AEEG objective 2012	2010	2011	2012	AEEG objective 2012
Average minutes of interruption per year for LV users due to long interruptions without notice	31.62	25.68	27.59	28	77.11	38.9	69.41	53	/	/	/	/
Average number of interruptions per year for LV users due to long interruptions without notice	1.73	1.62	1.27	1.6	2.15	1.99	2.84	2.06	/	/	/	/
						Br	escia					
	High o	concentra	tion envi	ronment	Mediun	n concent	ration env	/ironment	Low	oncentra	tion envir	onment
Service continuity indicator	2010	2011	2012	AEEG objective 2012	2010	2011	2012	AEEG objective 2012	2010	2011	2012	AEEG objective 2012
Average minutes of interruption per year for LV users due to long interruptions without notice	6.71	6.72	6.87	25	12.47	7.79	16.27	40	28.23	27.3	28.97	60
Average number of interruptions per year for LV users due to long interruptions without notice	0.94	1.07	1.09	1.01	2.11	1.19	1.63	2	2.87	2.27	2.51	4

191 Emergency electricity service

		MILAN		BRESCIA			
	2010	2010 2011 2012			2011	2012	
No. of MV customers with more than 2 interruptions a year for high concentration environments	166	109	112	1	10	10	
No. of MV customers with more than 3 interruptions a year for high concentration environments	6	13	12	1	1	1	
No. of MV customers with more than 4 interruptions a year for high concentration environments	n/a	n/a	n/a	0	0	0	

In situations where there is a shortage of electricity, Terna - Rete Elettrica Nazionale SpA requests distribution companies to implement a **scheduled rotational cut-off plan** to avoid a general blackout. Five "severity" levels are envisaged which depend on the extent of the shortage of electricity, and these vary according to the numbers of users involved and the frequency of the cut-offs. Cut-offs for periods up to 90 minutes are communicated to Terna by giving 30 minutes notice and may occur at any time during the indicated bands and not necessarily at the beginning.

The scheduled cut-off plan prepared by A2A Reti Elettriche, structured by day and time band, can be easily consulted on the company's website.



192 Commercial quality - electricity: specific indicators - Milan/Brescia area

	AEEG level		provided ime indicat	Average time for providing the service			
		2010	2011	2012	2010	2011	2012
Time for making estimates for work on the LV network	20 working days	95.86%	87.63%	94.19%	10.14	11.53	10.32
Time for performing simple jobs	15 working days for LV 30 working days for MV	99.09%	99.62%	99.25%	7.6	7.48	6.83
Time for switching on supply	5 working days	99.13%	99.65%	98.47%	2.08	1.55	1.72
Time for switching off supply	5 working days for LV 7 working days for MV	99.06%	99.52%	98.75%	2.18	1.85	1.77
Time for switching on supply again after suspension for default	1 weekday	99.26%	98.97%	98.34%	0.24	0.21	0.25
Punctuality band observed for appointments	2 hours	94.76%	99.92%	99.30%	-	-	-
Time for reinstating supply following a fault in the measurement group on working days between 8.00 a.m. and 6.00 p.m. on the LV network	3 hours	89.92%	95.50%	92.11%	0.09	1.78	1.82
Time for reinstating supply following a fault in the measurement group on working days between 6.00 p.m. and 8.00 a.m. on the LV network	4 hours	95.96%	97.29%	94.50%	0.08	1.74	1.91
Time for communicating the result of measurement group checks	15 working days	91.64%	94.45%	96.32%	8.66	9.82	8.43
Time for communicating the result of voltage checks	30 working days	88.89%	95.83%	95.00%	15.61	15.25	18.16

193 Commercial quality - electricity: general indicators - Milan/Brescia area

Type of service	AEEG level LV	Services provided within the time indicated (%)			
		2010	2011	2012	
$\label{thm:monotone} Minimum percentage of requests to perform complex jobs completed within a maximum of 60 working days$	85% within 60 working days	99.75%	99.19%	99.24%	
Minimum percentage of motivated replies to written complaints or information requests communicated within a maximum of 20 working days	90% within 30 calendar days	88.10%	87.82%	98.18%	

Type of service	AEEG level LV	Services pro	time indicated	
		2010	2011	2012
Minimum percentage of requests to perform complex jobs completed within a maximum of 60 working days	90% within 60 working days	100.00%	97.79%	100.00%
Minimum percentage of motivated replies to written complaints or information requests communicated within a maximum of 20 working days	95% within 30 calendar days	98.73%	97.85%	100.00%

194 Technical quality - gas

				Actual level 2010		Actual level 2011				Actual level 2012				
	Base level	Ref. level	Milan	Brescia	Bergamo	Varese	Milan	Brescia	Bergamo	Varese	Milan	Brescia	Bergamo	Varese
Annual percentage of the network under high and medium pressure inspected	30%	90%	100%	94%	100%	31%	100%	57%	99%	43%	100%	100%	99%	40%
Annual percentage of the network under low pressure inspected	20%	70%	86%	52%	35%	43%	86%	32%	40%	71%	87%	58%	25%	69%
Average number of leaks localised per km. of network inspected	0.8	0.1	0.017	0.31	0.014	0.0044	0.027	0.083	0.01	0.25	0.07	0.12	0.01	0.28
Average number of leaks localised per km. of network following third party reports	0.8	0.1	0.42	0.18	0.09	0.52	0.35	0.1	0.07	0.31	0.32	0.13	0.05	0.24
Conventional number of measurements of the degree of odourisation of the gas per thousand end customers	0.19	0.5	0.55	1.09	0.68	1.8	0.58	1.11	3.5	1.36	0.58	1.1	3.63	1.35
No. of end customers with notice greater than or equal to 3 days for interruption without notice	/	/	42,781	85	606	0	22,498	53	795	0	17,584	112	341	0
No. of end customers with notice of less than 3 days for interruption with notice	/	/	7,277	82	145	0	2,279	49	98	0	2,281	187	138	0

195 Emergency gas service

195 Emergency gas service	е		1				1			
				Actual	level 2011			Actual	level 2012	:
	Base level	Ref. level	Milan	Brescia	Bergamo	Varese	Milan	Brescia	Bergamo	Varese
Annual number of calls to the switchboard where the team arrives at the location in <= 60 min	90%	95%	95.50%	99.50%	100.00%	99.20%	97.70%	99.60%	100.00%	98.84%

196 Commercial quality - gas: specific indicators - Milan area, Brescia, Bergamo and other provinces

		Services	provided wit indicated	hin the time	Average	Average time for rendering the service (days)			
Type of service	AEEG level	2010	2011	2012	2010	2011	2012		
Time for making estimates (simple jobs)	15 working days	98.27%	95.20%	95.91%	6.44	6.75	7.95		
Time for performing work (simple jobs)	10 working days up to 25D 15 working days over 40D	98.39%	96.28%	95.71%	5.66	5.51	5.72		
Time for making estimates (complicated jobs)	40 working days	98.21%	98.44%	95.46%	17.77	16.63	19.51		
Time for switching on supply	10 working days up to 25D 15 working days over 40D	92.54%	99.94%	98.66%	4.05	3.73	4.44		
Time for switching off supply	5 working days up to 25D 7 working days over 40D	97.25%	99.94%	98.96%	3.04	3.15	3.39		
Time for switching on supply again after suspension for default	2 weekdays	95.82%	99.68%	97.68%	1.18	1.21	1.13		
Punctuality band observed for appointments	2 hours	99.89%	99.93%	99.83%	n/a	n/a	n/a		

197 Commercial quality - gas: specific indicators - Varese

		Services	provided with indicated	nin the time	Average time for rendering the service (days)				
Type of service	AEEG level	2010	2011	2012	2010	2011	2012		
Time for making estimates (simple jobs)	15 working days	100.00%	100.00%	100.00%	6.1	3.9	7.3		
Time for performing work (simple jobs)	10 working days up to 25D 15 working days over 40D	98.39%	100.00%	100.00%	4.12	2.34	1.85		
Time for making estimates (complicated jobs)	40 working days	100.00%	100.00%	100.00%	11.1	4.9	17.7		
Time for switching on supply	10 working days up to 25D 15 working days over 40D	98.96%	100.00%	99.95%	2.8	1.5	1.6		
Time for switching off supply	5 working days up to 25D 7 working days over 40D	99.42%	99.89%	100.00%	2.0	1.3	2.1		
Time for switching on supply again after suspension for default	2 weekdays	100.00%	100.00%	100.00%	0.21	0.13	1		
Punctuality band observed for appointments	2 hours	95.00%	99.78%	100.00%	n/a	n/a	n/a		

198 Commercial quality - gas: general indicators

			Milan, Brescia, Bergamo and other provinces			Varese			
Services provided within the time indicated (%)	AEEG Level	2010	2011	2012	2010	2011	2012		
Minimum percentage of requests to perform complicated jobs which were completed within a maximum of 60 working days	85% within 60 working days	99.52%	98.93%	86.98%	100.00%	100.00%	100.00%		
Minimum percentage of results of measurement group tests at the customer's request communicated within a maximum of 10 working days	90% within 10 working days	99.37%	63.18%	83.71%	93.70%	100.00%	100.00%		
Minimum percentage of motivated replies to written claims or information requests communicated within a maximum of 20 working days	90% within 20 working days	92.56%	93.44%	92.27%	100.00%	100.00%	100.00%		

District heating and heat management

199 Geographical distribution of the district heating service

		2010		2011		2012	
	USERS* (n°)	VOLUME SERVED (Mm ³)	USERS* (n°)	VOLUME SERVED (Mm ³)	USERS* (n°)	VOLUME SERVED (Mm ³)	
Brescia and province	19,801	40.6	20,096	41.0	20,373	41.3	
Bergamo and province	256	3.4	324	4.1	390	4.7	
Milan and province	1,747	26.6	1,891	29.6	2,607	37.2	
Varese and province	135	2.5	137	2.5	141	2.6	
TOTAL	21,939	73.1	22,448	77.2	23,511	85.8	

^{*} Users may be a single residential unit in the case of independent heating or the whole building in the case of centralised heating.

Integrated water service

200 Extension of the integrated water service

	Aqueduct service		Purification service		Sewage service				
	2010	2011	2012	2010	2011	2012	2010	2011	2012
Municipalities served	141	108	108	72	66	66	73	69	69
Total users	327,452	277,014	278,336	169,730	160,601	184,848	183,409	178,626	187,137
Inhabitants	1,088,020	813,183	812,280	670,848	550,496	549,188	672,861	565,200	563,203

Note: BAS SII (Integrated Water Service Bergamo) no longer forms part of the above since 2011. In addition, Aspem SpA does not provide a purification and sewage service.

201 Geographical distribution of water service users

Total users	Brescia	Varese
Aqueduct service	213,892	64,444
Purification service	184,848	0
Sewage service	187,137	0

202 Online transactions of A2A Ciclo Idrico

	2010	2011	2012
Electronic bill activations	2,675	2,862	1,352
Number of online payments	16,473	16,792	23,107
Number of self-readings	1,292	1,103	894

Environmental services

203 Urban hygiene service: collection and sweeping

	2010	2011	2012
Municipalities served	86	86	89
Population served	2,280,315	2,309,310	2,326,391

204 Charged services: waste disposal and other services for private customers

	Users served
	2012
TOTAL	11,285

205 Waste disposal service - Ecodeco

	2010	2011	2012
Municipalities served	461	444	688
Companies served	1,646	1,466	1,320

206 Amsa customer satisfaction - Milan

Assessment of AMSA services (scores out of ten)		2011	2012
Urban waste collection	7.89	7.88	7.94
Overall organisation of waste collection	7.50	7.57	7.84
Frequency of removing the various fractions of waste	7.67	7.67	7.80
Information about the waste collection service	7.31	7.21	7.23
Noisiness of the service	6.65	6.54	6.83
Obstruction and inconvenience caused to traffic by collection vehicles	6.30	6.55	6.70
Street and pavement cleaning	5.91	5.96	6.72
Speed of the cleaning service and the presence of vehicles on the street	6.67	6.72	7.26
Means by which the cleaning service is organised	6.52	6.39	7.02
Frequency of street and pavement cleaning	6.31	6.18	6.97
Street washing	6.46	6.55	7.21
Service for cleaning market areas	8.03	7.94	7.83
Bulky waste collection service	8.49	8.46	8.50
Bin emptying	nd	6.49	6.85

Other services

207 Public lighting

	2010	2011	2012
Lighting points (no.)	193,522	196,630	199,209
Lighting towers (no.)	479	475	479
Lamp posts (no.)	116,828	119,224	122,288
Suspensions (no.)	10,604	10,583	10,634
Architectural sights lit (no.)	93	98	98

208 Traffic lights - Milan

	2010	2011	2012
Traffic light regulators (no.)	722	717	719
Supports (no.)	10,687	10,865	11,000
Traffic light lanterns (no.)	21,308	21,483	21,620
Lamps (no.)	63,073	63,960	64,311

209 Safety equipment - Milan

	2010	2011	2012
Television cameras (no.)	936	1,196	1,239
Traffic monitoring (no.)	66	174	160
Environmental monitoring (no.)	10	12	12
SOS bollards (no.)	148	148	148

5.3 Suppliers

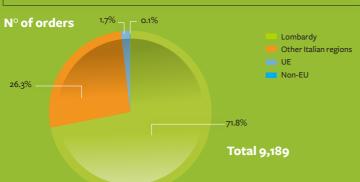
IDENTITY CARD

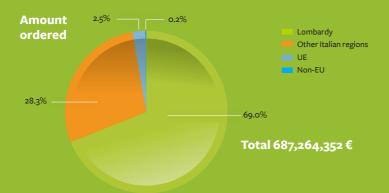
AT DECEMBER 31, 2012

Approximately 5,800 suppliers are registered on the A2A portal, of which **3,500 with at least one active qualification** sin a category of products and services, mostly small and medium businesses. Of these, 64% are from Lombardy, 34% from other Italian regions and 2% from European Union countries. Only three suppliers are from non-EU countries (the USA and the Republic of San Marino). In 2012 Group companies operating in Italy issued **more than 9,000 orders, amounting to a total of over 685 million euro.**

Of these orders, 45% relate to supplies of products (means of transport, plant parts, spare parts, various materials, etc.); 35% to services (maintenance, environmental services, cleaning services, general services, etc.); and the remaining 20% to civil works, industrial work on networks, the maintenance and repair of plant and equipment, etc.

210 Analysis of 2012 orders by area on the basis of the supplier's registered office





2012

The use of the portal for qualifying and managing suppliers extended to all Group companies

Around 50% of purchases by value managed through e-procurement

Dematerialisation of the procurement document archive started

Over 50% of qualified suppliers hold at least one certification

5.3.1 Tender procedures

Tenders for works, supplies and services within the ordinary and special sectors (urban hygiene, electricity networks, gas, district heating) are governed by Legislative Decree no. 163/06 "Code for public contracts relating to works, services and supplies implementing directives 2004/17/EC and 2004/18/EC". In this context, A2A has adopted a **system for checking the suitability of companies** with the aim of ensuring that their technical skills and economic and financial position correspond to the requirements of the Code.

Publishing **European Qualification Systems** and **Tenders** is the main means of communicating with suppliers and providing them with information concerning the A2A Group's purchasing activities. The information is channelled through **the A2A website** - where publication of European Qualification Systems and Bids for Tender called by the Group and the relative outcomes may be consulted - and for public tenders may be found in the Official Journal of the Republic of Italy, the Official Journal of the European Union and at least two daily newspapers.

If public tenders are not held, the request for bids is replaced by an **invitation letter**, together with the required specifications, through which a bid is called for. In these cases the A2A Group selects possible participants from the **Group's Vendor Register** on the basis of the qualifications to be found in the specific classes of products and services involved. At the same time scouting activities are performed with the aim of identifying potential alternative suppliers, to benefit competition. The identified companies are invited to follow the procedure for qualification in the Vendor Register.

The e-procurement platform was extended in 2012 and it is now easier for suppliers to take part in electronic tenders and ask for/receive information during the bidding process, including through the aid of a dedicated call center. To increase the level of satisfaction of suppliers who have access to that channel, monitoring tools have been introduced for the reports received by customer support on all the issues relating to qualification and the use of electronic negotiating tools. **Approximately 850 reports and requests for telephone assistance were dealt with** in 2012, of which around 95% were settled successfully within the time set by the Group's procedures. Compared to 2011 there was a fall of 30% in the number of requests received, testifying to the fact that the performance of the portal is increasing and that it is simple and easy to use.

In addition, by using e-procurement the purchasing department has given a strong push to the dematerialisation of purchasing processes. In 2012 over 50% by purchase volume was channelled through the e-procurement platform, with electronic processes replacing hard copy processes where possible.

A further thrust towards the dematerialisation of purchasing processes is arriving from the increasing use of the **MicroPurchases catalogue**: a service made available to all Group companies by the purchasing department to facilitate the process for purchasing materials which have low unit value and are widely/commonly use in various areas (stationery, ironware, tools, plumbing equipment, etc.). Over 7,000 orders were dealt with online through the use of this catalogue in 2012; in these cases suppliers issue a single monthly invoice, in this way dematerialising the collection of requests and the generation of orders and eliminating thousands of incoming invoices.

GREEN PROCUREMENT

As already stated, in its procurement activities A2A places considerable emphasis on all issues designed to safeguard the environment. Given this emphasis, the Group has taken steps to encourage purchasing from a **green procurement** standpoint (meaning the purchasing of "green", meaning ecological, products), taking into account the environmental impact of the entire life cycle of the products it purchases. Buying "green" means giving priority to the purchase of products and services which can ensure:

- a reduction in the extraction of natural resources:
- a reduction in the production of waste;
- an increase in the use of raw materials derived from renewable energy and renewable energy sources;
- a reduction of emissions into the air, water and the soil;
- the elimination chemicals and dangerous substances;
- a longer life for products;
- promotion of the recycling chain.

This leads on the one hand to the search for solutions and the selection of products and services that are increasingly ecologically compatible, and on the other to the tendency to give priority to suppliers who are able to respond in practical terms to such demands, including by means of a proactive approach.

Some examples of green procurement introduced by A2A in 2012 are as follows:

- the use began of synthetic hydraulic oil classified 95%-100% biodegradable under the CEC-L-33-A-93 method and easily biodegradable for the hydraulic control units of the hydroelectric plants in the Valtellina, Calabria and Brescia;
- staff at the plants in the Valtellina have been equipped with LED portable lamps instead of halogen/incandescent lamps, with the resulting reduction in battery usage of approximately 40%;
- for vehicle maintenance reusable highly-absorbent technical rags are deployed for the maintenance of Amsa vehicles which, at preset intervals of eight weeks, are withdrawn, washed and reused, reducing the quantity of materials that have to be disposed of.

This service is provided by a company having an operating agreement with the Ministry for Industry for the treatment and reuse of highly-absorbent technical rags deployed in cleaning activities.

In 2011-2012 the A2A Group completed a **Printing Management** project with the combined aim of rationalising the internal printing service and optimising ecological compatibility aspects. Several owned machines were replaced by modern multi-function floor and office machines. Common printing areas have been set up in all of the Group's offices where boxes for collecting consumables have been introduced as a means of making the disposal of this special waste more effective. This new organisation of the service has led to a considerable reduction in the installed fleet of machines (by over 60%) as well as new functionalities which have improved the quality of the service itself:

- print authorisation via pass-card recognition;
- $\bullet \quad \hbox{``followyou''}, meaning the possibility of collecting printed materials at any machine in any office;}$
- the direct allocation of printing and the relative costs to Group staff, thus enabling awareness measures to be carried out aimed at reducing quantities.

A constant decrease in the volume and number of copies printed is expected to be achieved following the introduction of the above, leading to considerable benefits for the environment as the consequence of a reduced use of paper and consumables and a decrease in electricity usage.

5.3.2 Qualifying for the A2A vendor register

Consistent with the provisions of the Group's Code of Ethics, A2A does business with its customers on the basis of the principles of economicity, effectiveness, quality, propriety, transparency, impartiality and equality of treatment. The guidelines on procurement and supplier qualification set out in the Code of Ethics are applied by all Group companies and have been introduced into the internal procedures governing operations in compliance with the Legislative Decree no. 231/2001 organisational model.

The process for selecting and qualifying A2A's suppliers applies to all companies interested in performing work for the Group and ensures that an updated list is maintained which can be used for sending out invitations for future tender bids

For qualification purposes a great deal of emphasis is placed on Quality, Environment and Safety certifications, SOA attestations and the aspects regarding compliance with employment contracts, environmental impact and worker health and safety.

The assessment of potential suppliers and the process of qualification for inclusion in the **Vendors' Register** is carried out through a portal used by all Group companies (1), as is the subsequent management of the relationship, including the negotiation process.



By using this portal suppliers may put their names forward for consideration for the various categories of products and services that are applicable to them. During this phase they are asked to complete an electronic questionnaire, which not only enables information regarding a company's general and financial and organisation details to be collected, but also that relating to quality, the environment and safety and the relative certifications.

This enables the Group to extend the range of information that is useful for making an initial assessment of the supplier and transmitting to the company involved a perception of the importance that quality, the environment and safety have for the Group.

The process by which suppliers apply for possible qualification in the categories of products and services that are applicable to them takes place with no onus on the supplier; this increases the possibility on the one hand for a large number of companies to take part in tenders called by the Group, to the benefit of free competition principles, and on the other for companies to be included in the A2A register, thus acquiring visibility in the wide-ranging sphere in which A2A operates.

Over 3,500 suppliers are currently registered on the portal with at least one qualification active for a category of products and services, and of these around 55% received at least one order in 2012.

211 Analysis of suppliers by number of employees

NUMBER OF EMPLOYEES	NUMBER OF SUPPLIERS
Micro-businesses (1-10 employees)	897
Small businesses (11-50 employees)	1,332
Medium businesses (51-250 employees)	607
Large businesses (over 250 employees)	223
Not available ²	484
Overall total	3,543

²Information not provided by suppliers on registration and not included in the external data banks used

To manage the Vendors' Register in the best possible manner, A2A has rationalised the products and service category trees of the various Group companies, creating one alone, enabling greater consistency and transparency in the use of this by all the companies of the Group.

In operating terms, this rationalisation and unification leads to a number of advantages, such as:

- the use of a single codification for all the interlocutors involved in the qualification and provisioning process (requestor, buyer, qualification office, etc.);
- simplification of relations between the Group and the supplier and vice versa;
- the possibility to enrich and improve the registered population (active scouting of specific products and service groups, the rationalisation of products and service groups, the introduction of turnover criteria).

The **Suppliers' Qualification reporting dash board** set up in 2012 additionally enables the Group to have a constant snapshot of the status of the population in the register and perform analyses and monitor their evolution, making it easier to implement any improvement initiatives. Among other things this tool has provided useful and interesting information about the current population of the Vendors' Register, from which it emerged that:

- the categories with the **highest number of qualified suppliers** are those with **the highest average** value of orders;
- the **least populated categories** are used **relatively little for the issue of orders** (or in any case are used for orders that on average are small).

A2A MEETS POTENTIAL SUPPLIERS AT A LOCAL LEVEL

With a view to ensuring constant interaction between the Group and its suppliers, a number of meetings were held with businessmen, companies and sector associations in 2012 to describe A2A's purchasing process and access to its Vendors' Register, thereby creating a direct link between potential suppliers (including the operating structures of the sector associations) and A2A. These meetings act as an important opportunity for an exchange of views and dialogue between A2A and qualified interlocutors throughout the local area, enabling a path to be followed that consolidates relations between the Group and local stakeholders.

¹Since 2012 the portal is also used by Partenope Ambiente

5.3.3 Pre and post vendor rating

In order to build a solid relationship with suppliers that can provide mutual satisfaction, company assessments are carried out pre-qualification, during qualification and post-qualification on the basis of actual performance in contracts awarded by the Group.

For the **pre-qualification** stage, which is carried out by the Supplier Qualification Department and is based on identifiable and objective factors, company references for similar activities performed in the recent past act as a basic element, together with information relating to the supplier's economic and financial soundness (obtained from a specialised outside provider) and other information in the public domain (e.g. reports by AVCP (the public works supervisory authority)).

As confirmation of the emphasis given to the pre-qualification and qualification assessment process, around 8% of the 3,000 requests received in 2012 for qualification in specific categories of products and services were turned down due to a lack of the pre-requisites.

Post assessment (which generates the Post Vender Rating process) is on the other hand based on an assessment of the supplier's performance when the ordered products are received or attestation of the way in which the services and works commissioned by the Group are performed. In this way pre assessments can be added to assessments based on the actual performance of companies when they carry out their work, thus involving all the users connected with a contract's life cycle. The assessment schedules contain specific dimensions relating to the quality of the service, the environment and safety, aspects of increasing relevance in the perception of the overall value of the supplier in the Group's eyes.

The commitment to ensure that all Group companies will eventually use the **Post Vendor Rating (VRC)** continued in 2012 and by the end of the year Ecodeco was using the process, providing its contribution to a single post assessment tool.

Using an advanced computer dashboard, the Supplier Qualification Department reviews the assessments, the users who made the assessment and the suppliers being assessed, in order to start up ad hoc detailed processes (internal meetings and/or meetings with the suppliers) and other activities dealing with the assessments. These activities and measures are regularly discussed in coordination meetings held by the procurement department and, if it is the case, can lead to action being taken against suppliers (e.g. suspension of qualifications, inclusion in the watch list, exclusion of suppliers or blacklisting).

The post assessment process enables cases of a performance considered "insufficient" to emerge and makes it possible to go into further details for specific items and to discuss the need for any consequence management measures, and this translated into 50 provisions during the year (being put on the watchlist, suspension or blacklisting).

5.3.4 Sustainable management of the sector and certificates requested

A socially responsible business cannot limit itself to protecting the environment and guaranteeing the safety of its personnel; it must also constantly monitor the environmental and workplace safety policies of its suppliers, to ensure that they are working on the basis of social responsibility principles.

In this respect A2A has a procedure which takes its inspiration from community law on Public Tenders and from the Group's Code of Ethics. In addition to requiring compliance with general rules, the specifications and relative forms of contract place emphasis on legal requirements on matters regarding insurance, social security and pensions, in order to avoid the use of unofficial work and to ensure safety in the workplace. More specifically, the procedure regulating the "Means of managing safety aspects in subcontracted activities" calls for controls at all the stages of the contract management process. There is also the explicit requirement in tender contracts for the subcontractor to keep its workers trained and informed on the risks to which they may be exposed.

Moreover a procedure also exists for "**Inspections at worksites on Quality, Environment and Safety**" aspects, which has the object of:

- making the means by which this testing is performed clear and consistent;
- enabling suitable monitoring to be carried out of any non-compliant situations encountered and their resolution, through the completion of specific check-lists;
- allowing improvement objectives to be identified and enabling the purchaser to express an opinion on the suitability of the contracted company.

In 2012, accidents occurring to the subcontractor's employees while working on A2A's main plants were monitored at a Group level for the first time; more specifically, 8 accidents having a duration exceeding 3 days were recorded in connection with the work being carried out by subcontractors on the Group's main plants, for a total of 149 accident-days (out of a total of approximately 356 thousand hours worked). The accident frequency rates and severity indices were 22.5 and 0.4 respectively.

In the case of non-compliance with the provisions of the job specifications, a complaint is immediately raised and accompanied by a request to remedy the non-compliance. In the event of serious or repeated non-compliance, a complaint letter is sent to the supplier and in the most serious cases a penalty is inflicted; these considerations all form part of the post assessment of suppliers described above.

DISPUTES WITH SUPPLIERS

Sixty five disputes involving suppliers or their employees were pending at the end of 2012. A large number of these involved contractual non-performance by suppliers or by Group companies. A significant proportion of these, then, consisted of appeals against the award of tenders called by Group companies or exclusion from these tenders. Six regarded accidents to subcontractors' employees.

All Group companies carry out a **systematic collection of information on the extent to which suppliers have ISO 9001 (Quality), ISO 14001 (Environment) and OHSAS 18001 (Safety) certification**, to encourage an increase in the suppliers included in the Group's Register who are members of certification systems. For A2A managing a supply chain means selecting responsible suppliers and using its purchasing power to encourage suppliers to adopt sustainability practices.

At December 31, 2012 more than half of the suppliers on A2A's portal with a qualification active hold at least one certification (ISO 9001, ISO 14001 or OHSAS 18001), At a Group level (3), over 50% of the orders made in 2012 were with suppliers holding at least one certification.

212 Quality suppliers with certifications (at December 31, 2012)

Certification	Number of suppliers
ISO 9001	1,933
ISO 14001	513
OHSAS 18001	236

 $^{^3 \, \}text{Given the change in scoping this figure cannot be compared with prior years}$



IDENTITY CARD

AT DECEMBER 31, 2012

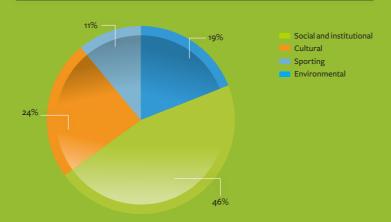
In 2012 A2A paid out over 3 million euro in favour of the communities of the areas in which the Group operates.

213 Sponsorships and donations made over the past three

(Euro)	2010	2011	2012
Sponsorships	2,659,150	1,865,232	1,471,107
Donations	1,535,606	1,785,856	1,669,349*
Total paid out during the year	4,194,756	3,651,088	3,140,456

 $^{^*}$ Consists of donations made to theatres (the Scala Theatre in Milan, the Grand Theatre of Brescia and the CTB in Brescia), a donation made for the restoration of the Axis Room in the Sforzesco Castle in Milan and donations made by Amsa

214 Sponsorships by area of activity



In addition to the amounts shown in the table, A2A also paid 2 million euro in support of the AEM and ASM Foundations, which promote activities and projects in favour of the local area in conjunction with institutions, associations and the educational world.

HIGHLIGHTS **2012**

A2A's contribution to drawing up regulations for the energy sector and the National Energy Strategy presented by the government in November

Active continuation of dialogue and collaboration with the environmental associations and local and national institutions

Over 19,000 people, adults, young people and school students, visited A2A's plants

A2A's new YouTube channel began in November with over 100,000 viewings in little more than two months

5.4.1 Dialogue with the institutions

The work performed by A2A cannot ignore the need for an open and constant dialogue with the institutions, which besides being an interlocutor of prime importance represent a channel for collecting the requests that arrive from the other stakeholders with whom the Group interacts. Depending on the various problems and issues, this dialogue takes place at a local, national and supranational level on the basis of the utmost propriety, transparency and collaboration. The tool used to govern these types of relationship is the Code of Ethics, which sets out the rules and criteria on which A2A people must base their inspiration.

Central institutions

A2A is a member of all the leading sector associations and collaborates with a variety of institutions, taking an active part in **discussion groups set up for issues concerning the environment and energy**.

Through its Institutional Relationship Department, A2A constantly reviews legislative, regulatory and authorisation activities at both a national and supranational level, with the aim of providing constructive support to the evolution of the sector's regulatory framework. In 2012 specific importance in this sense was assumed by the support given to the Italian government and parliament in drafting new reference regulations in various areas such as:

- gas tenders;
- receivables due from the public administration;
- safeguarding Italian companies working in the strategic sector of energy (the "golden share");
- tender procedures for hydroelectric concessions;
- the reform of local public services.

More recently, support has regarded drawing up the Ministerial Decree on White Certificates, under which the Ministry for Economic Development in conjunction with the Ministry of Environment grants an ad hoc bonus for "Grand projects" in metropolitan areas, with very positive repercussions in stimulating the Milan District Heating Project, also in environmental terms. Finally, A2A senior management were involved in the Senate industry committee as part of a fact-finding enquiry for drawing up the National Energy Strategy being prepared by the Ministry for Economic Development.

A2A AND THE NATIONAL ENERGY STRATEGY: FOR A MORE COMPETITIVE AND SUSTAINABLE ENERGY

Following several months of public consultation in November 2012 the government officially presented the National Energy Strategy (SEN), whose aim is to guide development in the Italian energy sector in the medium and long term and which has the following objectives:

- to reduce the cost of energy for Italian residents, closing the gap that separates this country from the rest of Europe;
- achieving (or exceeding) the environmental targets forming part of the 20-20-20 package;
- improve the safety of supplies, especially in the gas sector;
- stimulating sustainable development through a strengthening of the energy sector, the driver of economic growth.

Among its priorities the SEN puts at the top of the list energy efficiency, the creation of a competitive gas market, the development of the renewable energies and infrastructures of the electricity market, the restructuring of the refining process and the fuel distribution network, a pick up in the production hydrocarbons throughout the country and, finally, the modernisation of the governance system that concerns the relationships between the numerous institutional entities involved in implementing the strategy.

During the hearing of the Senate Tenth Industry Committee, A2A, as a multiutility with a consolidated experience and presence in almost all the sectors of activity identified as crucial in the document (ranging from electricity production to the purchase of solid and gaseous fuels, from the environment sector to the distribution and sale of electricity, natural gas and heat) provided its contribution to

achieving the objectives of the SEN. In particular, two issues of national importance especially dear to the A2A Group's heart were brought to light:

- energy efficiency throughout the country by spreading the use of district heating;
- waste management for energy purposes.

The development of district heating enables traditional forms of heat production to be replaced, thereby reducing total energy requirements. Energy recovery from renewable sources (waste, underground water) increases the proportion of green energy as a percentage of total energy consumption. Polluting emissions in metropolitan areas are considerably reduced as the result of the increased efficiency of cogeneration plants and their use of a technology which is more modern than that of traditional boilers. The relocation of production centres from the city to outside areas amplifies that effect.

An increased use of waste for energy purposes(1) would enable further environmental and economic objectives to be achieved: it would provide a contribution to solving the waste problem in metropolitan and industrial areas, strengthen the economic knock-on effect regarding waste treatment, consolidate recognised Italian technological leadership and reduce dependence on other countries for energy and biomass, as the waste originates in Italy.

(1) Italy still resorts to the use of landfills far more than the more advanced European countries (such as Germany and the Netherlands), with this representing almost 50% of total waste disposals

Local authorities

Local authorities are an essential reference point for A2A, in terms of both relations with the local area and the development of the Group's activities. A synergic relationship is constantly maintained with these bodies. Local authorities may be the granting body for the installation of plant and/or the provision of services to residents (for example, energy, heat, water services) or may be customers themselves, especially in the case of environmental services (such as waste collection and treatment, street sweeping, etc.). In the case of the Milan and Brescia municipal administrations this relationship takes on additional weight, as in this specific case they are also A2A's leading shareholders.

This system of relations often leads to the setting up of joint initiatives of a social, cultural, environmental and economic nature to the benefit of the local area and local communities.

A practical example of this is to be found in Calabria, where A2A is present with a part of its hydroelectric production. In November 2012, during the clearing of the Passante dam for the normal maintenance of the plant, A2A arranged for the recovery of fish-life found in the basin in agreement with the Catanzaro provincial administration and the Calabria branch of Fipsas (the Italian Angling and Underwater Activities Federation). The work scheduled on the dam was also the occasion for the Calabria regional section of the Civil Protection agency to carry out exercises with the collaboration of local volunteer groups, under the coordination of Catanzaro Police Headquarters, which were designed to test the possible effects of an overflow of the basin along the river channel up to the sea (also see the section on Environmental Responsibility on page 57).

Another example is to be found in Milan, where in March 2012 Amsa, one of the Group's environmental hygiene companies, organised a training course for the Ecological Guard Volunteers who report to a section of the Municipality of Milan's safety department. The objective of the course - which representatives of the Area Councils of the Municipality of Milan, the consumers' associations and former Amsa employees also attended - was to provide information about the differentiated collection of domestic wet waste and transparent bags.

AGREEMENT BETWEEN A2A AND THE MUNICIPALITY OF MONFALCONE ON MONITORING THE PLANT

Under an agreement signed in August 2012 a technical discussion group has been set up which is designed to assess the environmental status of the local district and the repercussions of the plant's activities on the quality of life of the people living in the area. Among other things, the agreement provides for the following: verification that the plant is managed in accordance with current laws and regulations, testing that the monitoring network equipment is working properly, encouraging meetings on energy issues and disseminating information of the environmental effects arising from the working of the plant. The discussion group is made up of representatives of A2A and local institutions such as the municipal administration, the Friuli Venezia Giulia regional administration, the Gorizia provincial administration, the regional environmental protection agency (ARPA) and the local health authority (ASL).

Sector authorities and associations

The A2A Group operates in highly regulated sectors where the legislative and regulatory situation is constantly evolving, in terms of both activities connected with electricity and gas and those regarding the management of the water cycle and environmental services. A2A's main interlocutors on a constant basis are **the Electricity and Gas Authority (AEEG)** and **the Italian anti-trust authority (AGCM)**.

Further information on the regulatory framework can be found in chapter 2.

A2A is an associate of the business federation **Confindustria**, within which it is a member of **Assoelettrica**, the Association of Electricity Companies. In 2012, the Chairman of A2A's Supervisory Board, together with the Head of Institutional Affairs, was as a director of Assoelettrica.

A2A actively participates, with positions of responsibility, in:

- Federutility the Federation of Energy and Water Companies;
- Federambiente the Italian Federation of Environmental Public Hygiene Services;
- **AIRU** the Italian Urban Heating Association, which represents companies working in the sector of electricity-fuelled urban heating systems and heat cogeneration plants which are fired by traditional and renewable source fuels;
- **ASSOCARBONI** the association that represents over 92 companies in the sector for the handling and use of coal and includes electricity producers, importers, representatives of foreign companies, traders, users, plant constructors, etc..

In June 2011 the General Manager of the Technical-operations area in A2A S.p.A. was appointed chairman of the CIG - Italian Gas Committee, the UNI-federated body assigned the responsibility for drawing up national technical standards for combustible gases in Italy, with a three-year term.

Consumers' associations and business federations

It is natural for A2A to set up initiatives for listening to and discussing matters with consumers' associations and business federations, and this forms part of the way of working that the Group considers its duty as a means of establishing a relationship of transparent collaboration with the consumer-customer. In 2012, A2A's commitment in this sense took shape by overseeing, listening to and becoming involved in the consumer world, which in Italy is represented by 18 different consumers' associations recognised by the National Council of Consumers and Users (CNCU) and, in Lombardy, by 17 associations recognised at a regional level. This collaboration has given rise to a series of activities involving the coordination and supervision of applications presented by the associations themselves, participation at workshops and conferences on subjects connected with consumer protection and projects and agreements which have seen the commitment of A2A and individual Group companies in regard to specific matters and activities.

Among the most significant initiatives carried out in 2012 were the following:

- a permanent working group defending customers against unfair commercial practices, which saw A2A Energia and the consumers' associations becoming involved and collaborating together in order to fight this phenomenon, which is unfortunately somewhat widespread. This work has led to the setting up of an Observatory whose members come from A2A and the associations, the drafting of a Self-Regulation Protocol against unfair commercial practices, the creation of an anti-fraud toll-free number, the organisation of dedicated meetings, announcements in the national and local media and the organisation of a conference with the participation of all the associations and representatives of the AEEG, the Single Buyer and the local institutions;
- an A2A Energia-consumers' associations working group for the preparation of the "Guide to reading your bill", presented in April 2012, a multilingual document which is designed to assist customers of all nationalities to obtain a better understanding of the various items of which a bill is made up;
- an Aprica-Municipality of Bergamo-consumers' associations working group for the preparation of the Charter of Services presented to residents in June 2012;
- an Amsa-Municipality of Milan-consumers' associations working group for the preparation
 of the Charter of Services which will be presented in 2013 as required by the 2008 Finance Law; this
 saw the extremely active participation of the associations, which will have an increasingly powerful
 protection and checking role concerning the waste management activities carried out by Amsa in the
 municipality of Milan;
- participation in the workgroup set up by the AEEG to create the new Energy Customers Settlement Service, which will begin in April 2013; the service will be directly managed by the Single Buyer and will provide customers with a further opportunity to access the procedure for out of court settlements of disputes; A2A acted as a representative of Federutility in this workgroup;
- a discussion group for creating a Single Settlement Report Form, set up with the leading national
 companies in the energy sector (ENI, ENEL, SORGENIA, A2A, ACEA). This group also envisages a proposal
 for a Protocol which has been presented to the consumers' associations and the AEEG, although the
 start of this has been suspended for the moment while waiting for European legislation to be established;
- an agreement with the three associations working in Acerra's local area (Friends of the Earth,
 ACSSA and the Consumers' League) to hold environmental lessons in schools and encourage visits to
 the Acerra plant as part of the "Collect, Convert, Create" project.

Environmental associations

Several listing, information and involvement initiatives have been undertaken with respect to the environmental world, which for A2A is mainly represented by the most important **national associations** and by various **local committees**, designed to maintain a climate of proper debate and mutual collaboration, in particular in Brescia, Monfalcone and Acerra.

A2A participated with its support in initiatives organised by the associations through its companies operating in the environmental services sector,

In Milan, Amsa contributed to the realisation of "**Let's clean the world**", an annual event organised by the Environmental League and held on September 29 and 30, 2012, whose aim is to free gardens, parks, streets and squares of waste and avoid them being neglected by involving inhabitants in cleaning and environmental recovery action.

In Varese, on November 17, Aspem organised the **3rd Reuse Day** in conjunction with the Environmental League, the Province and Municipality of Varese and AUSER Varese during the "European Week for Waste Reduction". This event saw the participation of several volunteers from the Environmental League, the Varese Ecological Guard Volunteers (GEV) and AUSER (volunteer and social promotion association) as facilitators to ensure that the initiative went off well.

5.4.2 Actions in favour of local communities

For A2A inter-reaction with reference communities does not only mean supporting local initiatives and

developing activities and projects, it also means pursuing the relations and involvement that form part of the Group's sustainability policy objectives with a commitment. Despite what it still a critical general economic situation, in 2012 A2A continued to provide its support to the local areas and communities it meets on a daily basis. In the year the Group supported the communities and local area to the extent of over 3 million euro.

A2A's support went, as always, to activities and initiatives ranging from the cultural to the social sphere, from the environment to sport, often collaborating with local institutions and associations either directly or through Group companies operating in the area.

Cultural sphere

Priority in this sphere was given to steps taken in favour of the Scala Theatre in Milan, the Grand Theatre of Brescia and the Brescia Theatre Centre (CTB). Collaboration with the Municipality of Milan and the Ministry for the Arts continued through the project for the restoration of the Axis Room in the Sforzesco Castle in Milan, which contains monochrome paintings by Leonardo Da Vinci.

Social sphere

Among the initiatives of social interest which have received the support of A2A, a number relate specifically to the field of education and schooling (see the paragraph "Environmental education" on page 205): from "Lilliput", the educational fair for infant children realised with the Municipality of Bergamo, to the "Lazzaro Project", aimed at recovering obsolete computers no longer utilised by the Municipality of Brescia for reuse in schools, up to maintenance work carried out at an educational institution.

The 3rd edition of "Eat the Leaf" took place in Milan in November 2012, a social and environmental initiative organised by Amsa for charitable purposes. Using rakes, brooms and gloves supplied by Amsa, residents and employees and former employees of the company gathered together to clean the Alberto Moravia gardens. Amsa donated a fixed amount per employee taking part in the event, which led to the collection of 30,000 euro. This was donated to the Niguarda Spinal Unit Association (AUS), a not-for-profit-body, to fund "Room for Life", a building where recreational activities are organised for people with spinal cord damage and spina bifida.

Other initiatives involved support for social issues at an international level: adherence to the initiative promoted by the Municipality of Milan to draw the public's attention to the humanitarian emergency affecting Syria and support for the "Red Alert" project launched by the Italian Agency for the Response to Emergencies (AGIRE), which saw the façade of Palazzo Marino, the main offices of the Municipality of Milan, lit up in red from October 10 to 17, 2012 together with other monuments that are the symbols of Italy, to draw people's attention to the emergencies in the world.

THE A2A CIVIL PROTECTION GROUP IS GIVEN RECOGNITION BY THE MUNICIPALITY OF MILAN

An important contribution for dealing with local emergencies was provided by A2A's Civil Protection group: a volunteer association which carries out specialist intervention at electricity, water and gas distribution plants. In 2012 the group formed part, among other things, of the Lombardy Region's Mobile Column which was involved in the areas around Mantua hit by the earthquake. This led to the setting up of two camps, one in Moglia and the other in San Giacomo di Segnate, capable of sleeping around 550 people. The A2A volunteers arranged for the connection of water and sewage for the needs of the two camps and the setting up of an electricity network for cooking, nursing and secretarial needs and for providing electricity to each individual tent.

On December 7, 2012, at the traditional ceremony held to award the Ambrogini d'Oro medals, A2A's Civil Protection group was awarded the Municipality of Milan's Civic Certificate of Merit: a symbolic and much-appreciated recognition for the work that the association has performed over the years to help people hit by natural disasters.



Environmental sphere

A2A joined in the Park-Water Museum Project in the Upper Valtellina organised in conjunction with the Sondrio provincial administration and the Cariplo Foundation, promoting guided tours of the historic Fraele Plant. Through Partenope Ambiente and Ecodeco, the Group took part in the 5th edition of the EnergyMed Conference Exhibition on Renewable Sources and Energy Efficiency in the Mediterranean, which was held in Naples from March 22 to 24.

The pilot project "SHARE SUSTAINABILITY" came to an end in 2012, supported and developed by A2A over a period of two years in collaboration with the Cantiere del Sole cooperative of Brescia and with the contribution of the Cariplo Foundation. The aim of this project was to make people aware about the issue of energy efficiency and to create an ecological conscience, encouraging them to move towards lifestyles that are more respectful of the environment, and made specific reference to three environmental issues: the reduction and disposal of waste, energy and energy sources and saving water. The objective of the testing, which involved 4 apartment blocks each with approximately 35 families, was to spread a culture of environmental sustainability by acquiring daily behaviour for safeguarding resources. A training course was held at the end of the initiative for apartment block administrators, together with a conference.

Among Amsa's sponsorships in 2012 was the company's participation in the "**Sprimg Bikefest**", an initiative whose main scope was to spread the use of the bicycle as a means of transport but which also provided the opportunity for encouraging virtuous behaviour such as how to carry out differentiated collection and look after the city's dignity, and "**Small Garden**", an event promoted by Orticola Lombardia which by means of a market fair held in the public gardens of Via Palestro in Milan channelled the message of the importance of carrying out differentiated collection but even more so that of not wasting resources.

Sports sphere

Among the many sports events supported by A2A we should recall the Italian Canoe Championships which were held in June 2012 on the highly demanding rapids of the River Adda in the province of Sondrio. In the Valtellina, the Group promoted the by now traditional A2A - Contea di Bormio Trophy, which saw almost 400 people attending: athletes, teachers and guests of the fifteen middle schools of the province of Sondrio and the nearby Poschiavo valley (CH). A number of participants fought it out on the ski slopes while others involved themselves in solving a test on energy saving and the activities performed by A2A.

In addition, A2A chose to stand alongside Marco Confortola, a world-famous mountain climber, in his courageous expedition to attempt to climb Dhaulagiri without oxygen, the Himalayan peak which with its 8,167 metres is the seventh highest mountain in the world. This expedition was also an important occasion for developing a medical and scientific research programme conducted by the cardiology department of the Civil Hospitals of Brescia: the data collected will be used for studying new therapeutic strategies for patients suffering from heart failure.

Activities of the Foundations

The two Foundations headed by A2A which through their name preserve the memory of the two companies which gave rise to the present Group play a very important role in keeping close to the local community, thanks to the deep roots they have in the local area: the AEM Foundation and the ASM Foundation. Their work covers a variety of different spheres, ranging from the more traditional areas concerning work of a social and cultural nature to the educational and environmental and research and innovation in the energy and environmental sector.

The ASM Foundation works mainly in the field of social issues, promoting artistic and cultural expressions and supporting environmental training and protection, and has Brescia, Bergamo and provinces as its area of reference. Among the work it did in 2012, the ASM Foundation funded the research project "Brescia and the green qualities of Europe, air quality and district heating: comparative experiences". This study analysed the way in which atmospheric pollution is dealt with by comparing approaches and results in Brescia,

Copenhagen, Stockholm and Hamburg (the last three are winners of the "European Green Capital" award and are considered "benchmarks of excellence"). The research showed that without district heating Brescia would be suffering nitrogen oxide and carbon dioxide emissions at a somewhat higher level.

In the cultural sphere, in 2010-2012 the ASM Foundation in particular supported an important project to enhance the historical and archaeological heritage of the city of Brescia, in conjunction with the Municipality. This project led to the *reopening of the archaeological site of the Capitolino Temple* in March 2013, which has been declared a UNESCO World Heritage Site. This site is equipped with an innovative interactive multimedia system which enables visitors to know it and explore it as it was originally, enhancing the environment and allowing people to obtain a better understanding of the significance of the Temple.

The AEM Foundation has among its aims support for scientific research and the development of innovative technologies in the energy field, as well as the protection, preservation, safeguarding and enhancement of the historic, architectural and cultural assets of AEM (now A2A). In 2012 the foundation took part in organising the "ART FOR FUTURE - 4A WOMAN - Art and solidarity for Madagascar" exhibition in collaboration with the journal "Italia Arte" and the Municipality of Milan and with the patronage of the Province of Milan. This initiative, enthusiastically shared by Italian and non-Italian artists of national and international fame (including Dario Ballantini), took place from December 13 to 16 at the AEM Foundation - House of Energy in Milan and was the occasion for collecting funds to support the humanitarian action being carried out by the Akbaraly Foundation. This includes a project for fighting cancer affecting women in Madagascar entitled "4AWOMAN" (www.4awoman.org), which can count among its partners the European Institute of Oncology, the IEO Foundation and the Veronese Foundation.

The AEM Foundation also joined the "World Autism Awareness Day" declared by the United Nations General Assembly to make people more aware about this disease whose origins are still unknown. On this occasion the "Art among the people" association organised an exhibition at the AEM Foundation's headquarters in the House of Energy in Milan with the aim of leading visitors to discover imaginary journeys and enabling them to get to know, understand or simply listen to the silence to which autistic people are often condemned.



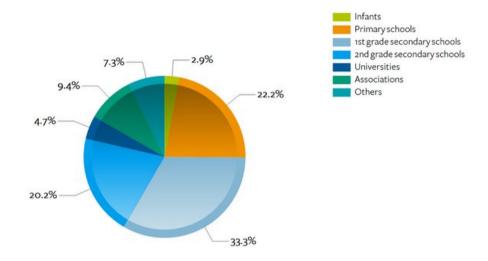
Plant visits and activities for schools

A2A opens the gates to its plants with the express wish of involving its interlocutors and allowing them to understand how the Group works, the depth of its commitment to reducing the environmental impact of its activities, the types of technology it uses and the extent to which every Group company abides by sustainability principles. This involvement concerns not only adults but also the smallest children, in this case through schools.

Standing out among the activities by which A2A and the various Group companies come into contact with the school world is the "A2A Schools Project", which is developed throughout the country as a whole and throughout the local area through the use of specific communication tools for a number of areas and business sectors. In 2012 this project involved over 16,000 students in guided tours of the Group's plants.

At Acerra, where A2A manages the waste to energy plant through its subsidiary Partenope Ambiente, an intensification programme for school visits to the plant has been set up and an agreement has been signed with a number of local environmental and consumer associations to promote visits coupled with classroom lessons on the integrated waste cycle, with the support of a mini-guide prepared especially for the purpose.

215 A2A plant visits



THE HOUSE OF ENERGY

An important informational and educational activity is carried out by the House of Energy in Milan, a place where it is easy to find further details about energy in a simple and comprehensible manner but always rigorously from a scientific point of view. After being restructured, the historic electricity substation in Piazza Po 3 in Milan now houses over forty interactive workstations which allow schoolchildren to test physical phenomena connected with energy and all sorts of interesting matters regarding the production and conversion of this important item. The journeys proposed by the House of Energy are based on energy efficiency, sustainable development and home safety.

These subjects are at the centre of didactic training activities addressed to students, first grade primary and secondary schoolteachers and families, with the aim of spreading a new culture among the young generations based on the conscious, careful and respectful use of energy procurement sources.

The House of Energy also offers residents advice and information on a series of maters such as: energy saving; energy efficiency; safety with gas and electricity in the home; and information of a technical and legislative nature on gas and electricity equipment used in the home. More than 1,500 telephone calls were handled in 2012.

5.4.3 Environmental education

Making society aware of environmental issues and educating it in this direction is a task which A2A believes to be inherent in its mission, consistent with the "sustainability culture" which is part of the way in which the Group acts. A variety of different activities are carried out on this front with regard to the local communities of the areas where the Group operates which are addressed to adults and to young people and children, with special emphasis being placed on the school population. Numerous projects took place in 2012 and a summary of these is provided in the following table.

ENVIRONMENTAL EDUCATION FOR YOUNG PEOPLE: A SELECTION OF PROJECTS 2012

01

THE ENVIRONMENT I HAVE IN MIND

A two hour learning experience during which detailed information is provided on the life cycle of various products and their ecological footprint

Who Aprica

Дрітс

Where Brescia

Addressed to

Primary schools and first grade of secondary schools

Subsequent enquiry/reporting by which the class expresses its point of view on the issue of waste in its own municipality by using one of the following means of expression: writing, drawing (including cartoons), photography, video.

The work prepared in this way then takes part in a competition with a prize awarded to the winner.

02

THE CULTURAL DISTRICT OF THE VALTELLINA

The A2A Group has taken on the responsibility of enhancing the Water Museum in the Valtellina for the period from 2011 to 2013 through the use of visits to the historic Fraele plant, which has been equipped with audiovisual systems and a panel exhibition on the subject of water.

Who

A2A - Valtellina area

Where

Valdidentro (Sondrio)

Addressed to

Primary schools and the first grade of secondary schools

The scope of the Museum Park, which sees the Municipality of Valdidentro as the leading body involved, is to illustrate the importance and social, economic and tourist role that water has played and continues to play in the life of the Upper Valtellina and the province of Sondrio.



Who

A2A - Valtellina area

Where

Lovero (Sondrio)

Addressed to

Primary schools and the first grade of secondary schools

ENERGY AND ENVIRONMENT... UNITED

This project is based on promoting guided tours to the Lovero plant and the Le Piane nature reserve which covers five hectares in the adjacent area.

The purpose of the project is to make the public aware through the visits about how hydroelectric production can coexist with nature reserves, since hydroelectricity is clean energy derived from a renewable source: water, the source of life.

04

Who

Ecodeco

Where

Province of Pavia

Addressed to

Second grade of secondary schools

ECO SCHOOL ON THE INTERNET

Ecodeco has been supporting the A. Volta Higher Education Institute, accepting the proposal made by the Province of Pavia (Environmental Protection Sector) to introduce a project aiming to make the younger generations aware of environmental themes and the concept of sustainable development.

Ecodeco opened up its Cascina Maggiore plant, situated at Giussago-Lacchiarella, to the public, and a total of 130 students made a visit.

05

Who

Aprica

Where

Bergamo and other served municipalities

Addressed to

Primary schools and the first grade of secondary schools

RICICLART

The objective of this project was to spread the culture of the use of natural resources without waste and the awareness of the waste cycle by using a path developed by the schoolteachers based on information material and presentations by external experts: from the reduction of production to differentiated waste, from reuse and recycling to energy recovery.

Promoted by Aprica in conjunction with the Municipality of Bergamo, the project was developed in school year 2011-2012.



Who

Where

Brescia and Bergamo

Addressed to

Primary schools and the first grade of secondary schools

GETTING TO KNOW THE ENVIRONMENT AND ENERGY

This TV quiz was born out of the desire to involve and inform the younger generations, namely pupils of primary schools (fourth and fifth grades) and the first grade of secondary schools, as to how important it is to understand what the urgent matters of our plant regarding the environment and energy actually are, and how many of these exist.

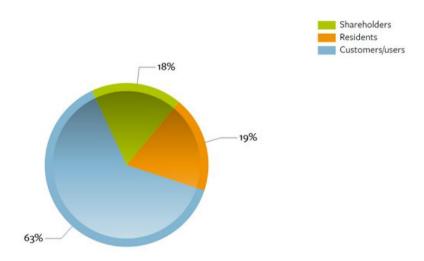
By using this television format A2A took the opportunity of introducing the youngest people in our society to issues ranging from the protection of the environment and the local area to energy saving through district heating and waste. Since starting, the programme has seen the participation of 40 schools from the areas of Brescia and Bergamo. Around 300 students were involved in 2012.

A communications project which confirms how important it is for A2A to keep in touch, for example by means of these kinds of initiatives, with the area in which it operates, with a view to collaboration and social responsibility.

5.4.4 Media relations

The public relations activities of the Group in 2012 were basically in line with those of the previous year and contributed to ensuring a constant, accurate and transparent flow of information, including through the media, to the benefit of all stakeholders. A total of 188 press releases were issued during the year: 54% with information for customers/users, 26 for shareholders and 20% for residents. A substantial number of letters were also sent to the media to reply to problems raised by readers: 110 during the year. Of these, in 78% of the cases the contents regarded matters addressed to customers/users, 17% residents at large and 5% shareholders.

216 Releases and letters to the media for the stakeholders of interest



The group met with journalists on 270 occasions during the year, with these encounters consisting of interviews and one-to-one meetings, press conferences, plant visits, events, etc..

For its part, the media monitoring and reporting activity performed by the Press Office represents a useful "listening" channel available to the Group's management for sounding out the "mood" and demands of the general public, the financial community and the specific reference communities for Group companies: an additional tool that provides a contribution to giving substance to the dialogue between A2A and its stakeholders.

5.4.5 **A2A on the web**

Communication via the internet is an important reference point for the A2A Group: a participation tool that involves all the interlocutors with whom the Group comes into contact on a daily basis. A single container that gathers together the world of A2A and all the companies that form part of the Group.

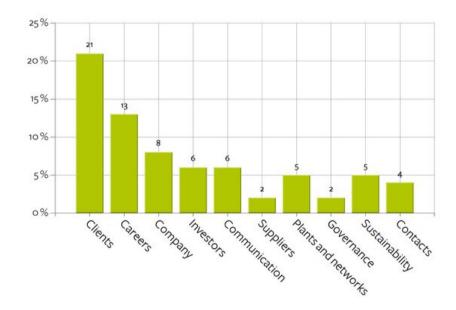
Various changes in A2A's web communication arrived in 2012. The major new item was the opening of the YouTube channel which reached over 100,000 viewings in little less than 2 months.

The use of the internet has contributed to the launching of important communications campaigns by the Group, ranging from the start-up of the collection of the organic fraction in Milan to the campaign carried out by Aspem entitled "Varese. Make the difference", aimed at promoting the development of differentiated collection. On this occasion the search engine "Dovelobutto", a practical help in understanding where and how domestic and non-domestic waste should be properly disposed of, was also extended to Varese.

In addition, new websites were set up by the following companies during the year: A2A Cicolo Idrico, A2A Calore& Servizi, Retragas, Ecodeco and Azienda Servizi Valtrompia (ASVT). These new sites introduce numerous new items such as information for stakeholders and easier browsing.

The portal www.a2a.eu was visited by over 600,000 people in 2012, with an increase of 36% over the previous year. Around 2.8 million pages were viewed.

217 Releases and letters to the media for the stakeholders of interest (% of total pages visited)



6.0 Statement of compliance



INDEPENDENT REPORT ON THE LIMITED ASSURANCE ENGAGEMENT OF THE SUSTAINABILITY REPORT 2012

To the Shareholders of A2A SpA

- We have carried out the limited assurance engagement of the Sustainability Report as of 31 December 2012 (hereafter the "Report") of A2A Group (hereafter the "Group") following the procedures summarized in paragraph 3 of the present document. The Board of Directors of A2A SpA are responsible for the preparation of the Report in accordance with Sustainability Reporting Guidelines (Version 3.1), issued by Global Reporting Initiative and with Sustainability Reporting Guidelines & Electric Utility (RG Version 3.0/EUSS Final Version), that are detailed in the chapter "Introduction and note on methodology" of the Report. The Board of Directors are also responsible for the definition of the Group objectives regarding the sustainability performance and the reporting of the achieved results. We are responsible for the preparation of this report on the basis of the work performed.
- Our work has been conducted in accordance with the principles and guidelines established by the International Standard on Assurance Engagements 3000 Assurance Engagements other than Audits or Reviews of Historical Financial Information(ISAE3000), issued by the International Auditing and Assurance Standards Board. ISAE3000 requires the compliance with ethical principles (Code of Ethics for Professional Accountants), including professional independence. It also requires that our work is planned and performed with the aim of obtaining a limited assurance, rather than a reasonable assurance, that the Report is free of material errors. A limited assurance engagement of the sustainability report consists in interviews, primarily with company's personnel responsible for the preparation of the information included in the sustainability report, in the analysis of the sustainability report and in other verification procedures.
- 3 The verification procedures performed on the Report are summarized as follows:
 - a) comparison between the economic and financial information and data included in the Report with those included in the Group consolidated financial statements as of 31 December 2012;
 - analysis of design and implementation of governance and management framework of sustainability topics related to strategy and operation of the Group;
 - analysis of the processes underlying the generation, recording and management of quantitative data included in the Report. In particular, we have carried out the following procedures:
 - meetings with management representatives of A2A SpA, A2A Reti Gas SpA, A2A Reti Elettriche SpA, Aprica SpA, AMSA SpA, A2A Servizi alla Distribuzione SpA, to achieve a general understanding of the information, accounting and reporting systems in use to prepare the Report, as well as of the internal control processes and

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procedures supporting the collection, aggregation, processing and transmission of data and information to the department responsible for drawing it up. These companies were selected on the basis of a qualitative and quantitative risk analysis;

- on-site verification of Mincio thermoelectric plant (A2A SpA) and Timpagrande hydroelectric plant (A2A SpA);
- analysis, on a sample basis, of the documentation supporting the Report, in order to confirm the reliability of data and information collected through meetings, interviews and on-site verifications and to confirm they were properly managed;
- e) verification of how data and information are managed in the selected sites and how they are subsequently aggregated and consolidated at Group level;
- f) analysis of the completeness and internal consistency of qualitative information included in the Report compared with the guidelines identified in paragraph 1 of the present document:
- g) obtaining a representation letter, signed by the legal representative of A2A SpA, relating to the completeness and reliability of the Report and of the information and data included in it, as well as to the compliance with the guidelines identified in the paragraph 1 of the present document.

As far as data and information concerning the Sustainability Report of the prior year, presented for comparative purposes, are concerned, refer to the assurance report issued on 16 May 2012.

A limited assurance engagement is less in scope than a reasonable assurance engagement carried out in accordance with ISAE3000 and, as a consequence, it provides a lower level of assurance that we became aware of all the significant events and circumstances that a reasonable assurance engagement could have identified.

4 Based on the procedures carried out, nothing came to our attention that causes us to believe that the Sustainability Report as of 31 December 2012 is not in compliance, in all material respects, with Sustainability Reporting Guidelines (Version 3.1), issued by Global Reporting Initiative, application level A+, and with Sustainability Reporting Guidelines & Electric Utility (RG Version 3.0/EUSS Final Version), as stated in the chapter "Introduction and note on methodology" of the Report.

Milan, 28 May 2013

PricewaterhouseCoopers Advisory SpA

Paolo Bersani (Partner)

This report has been translated from the original, which was issued in Italian. We have not performed any control on the Sustainability Report 2012 translation.

7.0 Statement of the level of compliance with the GRI guidelines

Full correspondance: Partial correspondance No correspondance:

Code	Description	Correspondance	Note/Pages
	STRATEGY AND ANALYSIS		
1.1	Chairmen's statement		5-6
1.2	Key impacts risks and opportunities		23-28,34-36
	ORGANISATIONAL PROFILE		
2.1	Name of the organisation		7,12
2.2	Primary brands, products and/or services		14-15
2.3	Operational structure		13
2.4	Location of headquarters		colophon
2.5	Countries where the organisation operates		15
2.6	Nature of ownership and legal form		12-13
2.7	Markets served		14-15
2.8	Scale of the organisation		15
2.9	Significant changes		13
2.10	Awards/prizes received		29-30
EU1	Installed capacity		15,74-75
EU2	Net energy output		69,100
EU3	Number of customers analysed by type		148-150, 176
EU4	Length of transmission and distribution lines		178-179
EU5	Allocations of emissions allowances and observance of the Kyoto protocol	•	73
	REPORT PARAMETERS		
3.1	Reporting period		7
3.2	Date of most recent previous report		7
3.3	Reporting cycle		7
3.4	Contact point for questions regarding the report		colophon
3.5	Process for defining report content		7-10
3.6	Boundary of the report		8-9
3.7	Limitations on the scope or boundary of the report		8-9,13
3.8	Information regarding affiliates		8-9,16-19
3.9	Data measurement techniques and bases of calculation		7
3.10	Restatements of information provided in earlier reports		9

Code	Description	Correspondance	Note/Pages
3.11	Significant changes from previous reporting periods	'	9,13
3.12	Reference table		211-216
3.13	External assurance		209-210
	GOVERNANCE, COMMITMENTS AND ENGAGEMENT		
4.1	Governance structure	•	31
4.2	Indicate whether the chairman is also an executive officer		32
4.3	Independent and non-executive directors		32
4.4	Mechanisms for shareholders to provide recommendations		RGS 55, 57-59
4.5	Linkage between compensation for directors and top management and performance	•	33
4.6	Conflicts of interest		33, CE 10
4.7	Directors' qualifications		33
4.8	Mission, values, codes of conduct and principles		37-38
4.9	Procedures for identification and management of economic, environmental and social performance		22-28, 37-40,61-63
4.10	Process for evaluating the highest governance body's performance		RGS 23-29,33-35
4.11	Means by which the precautionary approach or principle is addressed $$		34-38,61-63
4.12	Externally developed economic, environmental and social charters, principles or other initiatives subscribed or endorsed		7, 29, 34, 37-38, 45,61, 123, 126
4.13	Membership in industry associations		198
4.14	List of stakeholders engaged		39
4.15	Basis for identification and selection of stakeholders with whom to engage		39-40
4.16	Stakeholder engagement activities		40-42
4.17	Key topics and concerns raised through stakeholder engagement and response		40-42
	ECONOMIC PERFORMANCE		
DMA EC	Disclosure on management approach		44-56
EC1	Direct economic value generated and distributed		45-47
EC2	Risks and opportunities due to climate change		QAS,36
EC3	Coverage of pension plan obligations		130
EC4	Financial assistance received from government		46
EC ₅	Ratio of standard entry level wage to local minimum wage		126
EC6	Policy, practices and proportion of spending on locally-based suppliers		188
EC7	Procedures for local hiring at locations of significant operation		There are no policies in this area
EC8	Development of investment for public benefit		195, 199-206
EC9	Describing indirect economic impacts		44, 47, 126, 135-136, 188, 195
EU6	Management approach to ensure medium-long term electricity availability	•	178,180

Code	Description	Correspondance	Note/Pages
EU7	Demand-side management programmes		149-158
EU8	Research and development activity and expenditure aimed at promoting sustainable development		64-65
EU9	Decommissioning of nuclear power sites		na
EU10	Planned capacity	•	The requested information cannot be published for strategic opportunity reasons
EU11	Average generation efficiency of thermal plants		74,101
EU12	Transmission and distribution losses as a percentage of total energy		101
	ENVIRONMENTAL PERFORMANCE		
DMA EN	Disclosure on management approach	•	60-99
EN1	Materials used		104-109
EN2	Percentage of recycled materials		79-81, 95, 104
EN3	Direct energy consumption by source		104-109
EN4	Indirect energy consumption by source		104-109
EN5	Energy saved		64-65, 70-73, 91-93
EN6	Energy efficient or renewable energy based products and services	•	70-73
EN ₇	Initiatives to reduce indirect energy consumption and reductions achieved	•	73,93
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HR5	Freedom of association and bargaining		130
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HR8	Security personnel trained in human rights		na
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(Code	Description	Correspondance	Note/Pages
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F	PR6	Programmes for adherence to laws and voluntary codes related to marketing activities	•	Action in compliance with the AEEG's code of commercial conduct
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E	EU24	Information provided to customers on the safe use of energy and support services	•	http://www.a2a.eu/gruppo/cms/a2a /it/clienti/gas/sicurezza_gas.html
E	EU25	Number of injuries and fatalities to the public, including legal proceedings	•	174
E	EU26	Population unserved in distribution areas		na
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RGS: Report on Corporate Governance and Ownership Structures. This document may be consulted on the website www.aza.eu QES: The Group's Quality, Environment and Safety Policy CE: Code of Ethics

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