

Sustainability Report



The document has been prepared in accordance with the **Sustainability Reporting Guidelines** of Global Reporting Initiative (GRI) version G4, level **"in accordance CORE"**.

This report is may be viewed online www.a2a.eu.

**2014**Sustainability Report



#### Contents

Let	ter to stakeholders	4	3	Economic responsibility	46
Inti	roduction	6	3.1	The Group's 2014 results	49
1	The A2A Group	12	3.2	Formation of value added	50
	•		3.3	Distribution of value added	51
1.1	Business areas and structure of the Group	14	2.4	Capital Expenditure	E1
1.2	Size of the organization and markets served	16	3.4	Capital Experiatare	51
			3.5	Shareholders and Investors	53
1.3	Significant changes in the corporate structure	18		3.5.1 Composition of share capital	53
				3.5.2 A2A in the stock market indices	53
1.4	Companies outside the scope of consolidation	19		3.5.3 A2A In the sustainability rating	55
				3.5.4 Relations with shareholders and investors	55
2	Strategies and policies for sustainability	22	3.6	Annexes	56
2.1	Mission and Vision	24		E 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	and and Charter's Disc		4	Environmental responsibility	58
2.2	2015-2019 Strategic Plan	25		Desponsible management of the environment	
2 2	2013-2015 Sustainability Plan	26	4.1	Responsible management of the environment 4.1.1 Environmental management system	60 63
<b>4.</b> 5	2013-2015 3d3tdillability Flair	20		4.1.2 Use of resources and renewable sources	66
2.4	Responsible management: human rights	30		4.1.3 Efficient use of water resources	68
	and anti-corruption			4.1.4 Safeguarding of biodiversity, habitats and the landscape	72
	· ·			4.1.5 Atmospheric emissions	75
2.5	Corporate Governance	33		4.1.6 Management of waste and waste water	79
	2.5.1 Risk management	36		4.1.7 Other impacts of the business	80
	2.5.2 QES Management Systems	37		4.1.8 Research and innovation for the environment	81
2.6	Chart of stakeholders	38	4.2	Responsible Management of the Energy Sector	84
	and engagement initiatives			4.2.1 Energy production	85
				4.2.2 Management of emissions	87

<b>4.3</b> Responsible Management of the Heat Sector	90	5.2.3 Integrated water service	17
4.3.1 Production and distribution of thermal energy	91	5.2.4 Environmental services	179
		5.2.5 Site management	18:
<b>4.4</b> Responsible Management of the Environment Sector	94	5.2.6 Management of complaints and disputes	184
4.4.1 Integrated waste cycle	95	5.2.7 Tables: customer figures	18
4.4.2 Management of emissions	101		
		<b>5.3</b> Suppliers	196
<b>4.5</b> Responsible management of the Integrated		5.3.1 A2A and its value chains	198
Water Service Service	104	5.3.2 Tender procedures	199
4.5.1 Integrated water service	105	5.3.3 Supplier validation	200
4.5.2 Management of environmental aspects	106	5.3.4 Sustainable supply chain management and certification requireme	ents <b>202</b>
		5.3.5 Disputes with suppliers	20
<b>4.6</b> Environmental figures	109		
4.6.1 Activity data	109	<b>5.4</b> Institutions and local communities	204
4.6.2 Resources	114	5.4.1 Environmental policy	206
4.6.3 Air and climate	118	5.4.2 Support for initiatives and projects in the region	210
4.6.4 Biodiversity	125	5.4.3 Environmental education programs and initiatives	214
4.6.5 Discharges and emissions into water	125	5.4.4 Internal and external communication to stakeholders	218
4.6.6 Waste produced by the Group	126		
		Statement of compliance	220
<b>5</b> Social responsibility	128		
		Statement of the level of compliance	
<b>5.1</b> A2A people	130	with GRI guidelines .	22
5.1.1 Employment	132	General Standard Disclosure	22
5.1.2 Industrial relations	133	Specific Standard Disclosure	226
5.1.3 Health and safety	134		
5.1.4 Personnel development and management	136		
5.1.5 Corporate welfare and diversity management	139		
5.1.6 Tables: A2A people figures	143		
5.2 Customers and public served	156		
5.2.1 Selling electricity and gas	158		
5.2.2 District heating and heat management	173		

### Letter to stakeholders

We are pleased to present the seventh Sustainability Report of the A2A Group, the first prepared in accordance with new criteria for international reporting of the Global Reporting Initiative (GRI.4 guidelines), which place more and more emphasis on the careful reading of the expectations of stakeholders, identifying in the definition of the material issues the basis of the elaboration process of the Report.

This step fits perfectly in the line of evolution of A2A, which last year adopted a new governance model, abandoning the form of management so-called "dual", with the aim of gaining in efficiency and speed decision-making to respond more effectively to changing markets, as well as the stresses of the communities served and the many civil and business networks that represent the reference of the Group's activities.

In 2014, A2A also initiated the process of defining the new Business Plan, then presented in April 2015.

An ambitious plan, which aims, over a span of five years, to a radical transformation of the Group through steps such as: return to its industrial vocation, rapprochement to the territory, relaunch of investments, balance of the business portfolio, technological and digital innovation, enhancement of human capital and, in particular, young people. A2A aims to become, by 2020, a more solid and flexible company, with an even stronger leadership among the Italian public utility companies, excellent in the standard of service, able to generate value for the region and the community and, not least, to be a magnet for young talent.

It is a Plan with a clear strategic vision that is based on a construction phase largely owned and that constitutes a bridge to the future, having as constant reference values of economic, environmental and social sustainability.

Those same values are confirmed in the facts and figures presented in the following pages of this 2014 Sustainability Report.

In terms of economic sustainability, A2A confirmed, thanks to the constant search for operating efficiencies, its ability to create and deliver value, despite the negative macroeconomic environment and unfavourable economic factors, such as lower energy prices and the weather pattern that has adversely affected consumption. In 2014, the Group generated gross global value added of nearly 1.4 billion euro. This amount was allocated to staff compensation (35%), remuneration of risk capital (9%) and of lending capital (10%), and transfers to the public administration (17%) and to local communities (7%), as well as to depreciation, amortization, and company reserves (22%).

A2A has distributed wealth also through the more than 830 million euro spent on supplies, 96% of which for the benefit of Italian companies. More than half of the value of contracts relating to urban hygiene services was awarded to social cooperatives or non-profit organizations. 70% of the value of orders issues was related to suppliers in possession of at least one certification relating to environment, quality or safety. To support increasing dissemination of sustainability practices among its suppliers, A2A has also launched a self-assessment

platform (TENP) based on the 10 international principles of the Global Compact, initiative under the auspices of the UN, on which it is based and to which A2A has adhered since 2011.

Out of the 307 million euro capital expenditure in 2014, over 100 million has been invested in activities with environmental implications, such as reducing emissions, increasing energy efficiency and development of renewable sources.

As for environmental responsibility, in the year the new Environment, Health and Safety Organizational Model became fully operational, which has further improved the supervision and development of management systems already widely disseminated within the Group; the number of plants that possess EMAS environmental registration has increased from 18 to 24 and the electric plant of Sermide (Mantua) received by the Italian Ecolabel Ecoaudit Committee the "Italian EMAS Award 2014" for its eco-innovation ability.

A2A confirmed, also in 2014, its contribution to achieving the national and European energy policy objectives, thanks to industrial choices that have resulted in significant achievements in environmental terms. Among them: the increase of up to 53% of the portion of electricity produced from renewable sources; the increase in energy efficiency in the production of heat, exceeding 1,000 km of district heating network and the further diversification of procurement sources; the reduction of environmental impacts (such as the 15% drop of the CO2 emission factor per kilowatt hour in

power generation), the start of conversion operations of the plant Lamarmora of Brescia with the installation of three new gas boilers and the installation of DeNOx at the Monfalcone thermoelectric plant; the implementation of innovative projects on Smart Grid technologies; the start of the complete replacement of public lighting equipment in Brescia and Milan with high energy-efficiency lamps thanks to LED technology.

In the waste sector, where A2A Ambiente is confirmed among the national leaders with 2.6 million tons of waste treated, the Group operated with an integrated and circular approach, touching all areas: from waste reduction to the recovery of energy and materials.

97.5% of the waste collected by the Group's environmental companies has been recovered and only 2.5% ended up in landfills. Municipalities served have registered significant progress in differentiated collection and Milan, now at the forefront among the European cities, has exceeded the target of 50%.

In the management of water services, A2A provided an immediate and innovative answer to the requests of the territory undertaking, for example, the massive introduction in Brescia of a new system for reducing hexavalent chromium in drinking water, the levels of which will be reduced to below the detectability threshold by 2015.

Socially, particular attention was paid to transparency andthedevelopment of forms of structured dialogue with stakeholders, with over 240 stakeholder engagement

initiatives during the year. Of particular significance are collaborations with associations and committees of consumers and environmentalists, such as work groups for the drafting of Service Charters, the joint initiatives against unfair trade practices, environmental education projects in schools and awareness of sustainable consumption. During the year, visits to Group plants recorded 22,500 visitors, including 19,000 students.

Towards the community, the commitment of the Group was, as always, to support social, cultural, environmental and sporting initiatives in the territories in which it operates, delivering more than 4.4 million euro in donations, sponsorships and contributions.

In terms of relationships with customers, A2A Energia was again confirmed in 2014 among the first in the national Databank on the level of customer satisfaction in the protected market, resulting for the third consecutive year the best company for the sale of electricity and gas in the opinion of domestic customers. Excellent results in the surveys on the quality of services provided were also achieved by Amsa, Aprica and A2A Ciclo Idrico.

These findings are the result of the professionalism and commitment of all Group employees, including many young people inserted in 2014 through a recruitment project for newly-graduates, aimed at facilitating generational turnover in positions that require specific technical specialist know-how. Not only young people, but to all staff A2A dedicate attention and resources to ensure adequate levels of training, skills development and career opportunities.

Thanks to continuous training in health and safety, as well as the dissemination of certification in accordance with the OHSAS 18001 standard, in 2014 the indices of frequency and severity of accidents in the Group were reduced by 10%, continuing a trend of steady improvement in recent years.

Last year, A2A also invested in the structured involvement of employees in creating new ideas for the improvement of operational processes, with positive pilot experiences in Amsa and A2A Energia including an initiative dedicated to young graduates of the Group, Futura2a, with the intent to make them promoters of innovation and development of new ideas for the business.

People have been, since its establishment, the key to success of the A2A Group and will be even more so in the future. All employees and collaborators deserve our thanks for all work done so far together. With the 2015-2019 Business Plan we will have new important goals to achieve and we are confident that with the commitment and cooperation of everyone, we will really be able to achieve them.

Chairman Giovanni Valotti

Chief Executive Officer
Luca Valerio Camerano

Ludan

### Introduction

# THE A2A GROUP'S 7TH SUSTAINABILITY REPORT

Annual.

Verified by the Chairman of the Board of Directors.

#### **REFERENCE GUIDELINES**

Sustainability Reporting Guidelines - version G4 of the GRI (Global Reporting Initiative) and Electric Utilities Sector Supplement - G4 Sector Disclosures.

#### **COLLECTION OF INFORMATION**

Data relating to social and economic responsibility were collected using Excel spreadsheets, whereas data about environmental responsibility were collected using Environmental Management System (EMS) software, which tracks, checks, and approves all data requested.

#### **PERIOD OF REFERENCE**

1January - 31 December 2014.

#### COORDINATION

Sustainability, Events and Corporate Image Function Organizational Structures: - Media Relations, Corporate Communication and Sponsorships and Environment -Environment, Health and Safety.

### **ASSURANCE**

The report has been subjected to independent external assurance procedures performed in accordance with the principles and recommendations included in the International Standard on Assurance Engagements (ISAE) 3000, the International Auditing and Assurance Standards Board (IAASB), a body forming direct part of the International Federation of Accountants (IFAC).

### **Determining scope**

The companies that fall within the scope of this report vary from one section to another.

In terms of **Economic Responsibility** the scope coincides with that of the consolidated financial statements of the A2A Group.

For **Environmental and Social Responsibility** the scope of reporting includes:

- 1. companies in which A2A has a holding of more than 50%
- 2. companies that are part of the Group for the whole year (as a result, any companies that are acquired/sold/wound up during the year are not considered).

These companies are applied a **concept of relevance and significance** as follows:

- for environmental aspects the scope includes companies having industrial activities;
- for social aspects, "A2A people" include companies having at least one employee; "Customers and public served, companies having commercial activities; "Suppliers", companies that do not hold financial investments exclusively.

In the case of companies included within the scope of this report, which in turn hold equity investments, the latter are evaluated using the same reasoning described above. Owned or leased plants are fully consolidated if they appear as the fixed assets of consolidated companies. In the opposite case, if they are material (e.g. the Acerra waste-to-energy plant), they are dealt with by using specific captions.

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

Plants in which A2A has a joint holding of less than 50% but that are material are consolidated on a proportionate basis. According to this principle, the Mincio Thermoelectric Power Station has been consolidated 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.

#### www.a2a.eu

The A2A Group's 2014 Sustainability Report may be viewed on this website in Italian and English.



#### Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

Statement of compliance

Statement of the level of compliance with GRI guidelines

### Scope of consolidation of A2A group companies for the 2014 Sustainability Report

Company 2014	Environmental importance	Personnel importance	Customer importance	Customer importance
A2A S.p.A.	х	Х		Х
A2A Reti Gas S.p.A.	x	x	x	х
A2A Reti Elettriche S.p.A.	x	X	x	Х
A2A Calore & Servizi S.r.l.	x	х	x	Х
Selene S.p.A.		Х	x	X
A2A Servizi alla Distribuzione S.p.A.	х	x	х	х
A2A Energia S.p.A.		X	x	Х
A2A Trading S.r.l.	Box*	X	Box*	х
A2A Logistica S.p.A.	Box*	х	-	х
A2A Ciclo Idrico S.p.A.	x	х	x	х
A2A Ambiente S.p.A.**	x	х	x	х
Aspem Energia S.r.l.		Х	х	Х
Abruzzoenergia S.p.A.	х	Х	· -	
Retragas S.r.l.	x	х	Box*	Х
Aspem S.p.A.	x	Х	х	Х
Varese Risorse S.p.A.	х	Х	х	Х
Camuna Energia S.r.l.	х	Х	х	Х
Edipower S.p.A.	x	X		×

The following are therefore not included in the scope of consolidation for environmental and social responsibility:

#### In liquidation

- Assoenergia S.p.A.
- Ostros Energia S.r.l.
- Plurigas S.p.A.

#### **Financial investment**

- A2A Montenegro d.o.o.
- A2A Alfa S.r.l.

#### **Immaterial operations**

- Proaris S.r.l.
- Mincio Trasmissione S.r.l
- Seasm S.r.l.
- A3A S.r.l.

Compared with the scope of the companies consolidated in the 2013 Sustainability Report, there are no substantial changes in the scope.

<sup>\*</sup> The subject may be dealt with in a text included in a separate caption.

<sup>\*\*</sup> Includes the subsidiaries: Amsa, Aprica, Ecodeco Hellas, Ecolombardia 18, Ecolombardia 4, Sicura, Sistema Ecodeco UK, Vespia, A.S.R.A.B., Nicosia Ambiente, Bioase, Montichiariambiente.

#### **Materiality**

In 2014, A2A updated its materiality matrix defining a specific process, shared with the various company areas.



#### **MATERIALITY MATRIX**

Matrix representing the significant Sustainability issues for A2A and its stakeholders

The process has involved the following phases:



#### Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

Statement of compliance

 Statement of the level of compliance with GRI guidelines

#### Figure 1 | Definition process of materiality

### **Document analysis**

- Repository of engagement initiatives carried out by the Group during the year
- GRI-G4 guidelines and associated documents
- Comparison with some Italian and European competitor
- Media and web

#### **Definition list of issues**

- Analysis of potential issues that emerged the first phase with the aim of aggregating similar or redundant issues
- Identification of the internal and external scope of each issue
- Definition of the function/ company of the Group responsible for validation of the issues

#### **Materiality evaluation**

- Assessment by A2A and stakeholder on a scale from o to 4
- Specific adjustment criteria of the assessment for the stakeholder on the basis of the engagement initiatives carried out during the year

### **Materiality matrix**

- Inclusion of the issues in the matrix
- Definition of any scope limitations
- Definition of the materiality threshold
- Reporting

#### Introduction

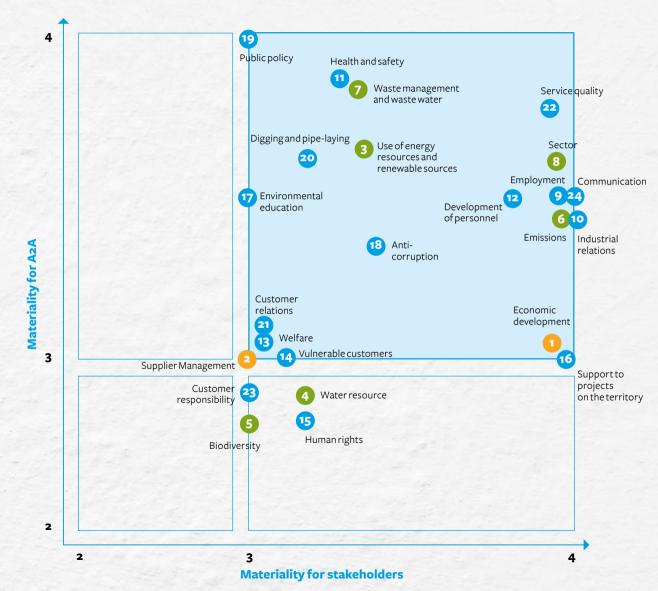
#### Figure 2 | Materiality Matrix

Compared with the previous Sustainability Report, issues have been reduced from 37 to 24 after the regrouping of some aspects. The new issues include: the management of industrial relations, the management of categories of vulnerable customers, respect for human rights and customer responsibility.

Social aspect

**Environmental aspect** 

**Economic aspect** 



#### Figure 3 | Material aspects

ID ISSUES THEME	Scope/Internal Boundary	Scope/External Boundary	Perimetro / Boundary Esterno
1	Economic development	Group	External stakeholders
2	Responsible management of the supply chain	Group	Suppliers*
3	Use of energy resources and renewable sources	Group	Community/Environment - Suppliers of fuels*
4	Efficient use of water resources	Group	Community/Environment - Suppliers of fuels*
5	Safeguarding of biodiversity, habitats and the landscape	Group	Community/Environment
6	Atmospheric emissions	Group	Community/Environment - Suppliers of fuels*
7	Management of waste and waste water	Group	Community/Environment
8	Responsible management of the business sectors	Group	Community/Environment - Customers
9	Employment	Group	
10	Industrial relations	Group	
10	Health and safety	Group	Suppliers**
12	Personnel development and management	Group	
13	Corporate welfare and diversity management	Group	
14	Management of categories of vulnerable clients	Group	Customers - Institutions
15	Respect for human rights	Group	Community - Suppliers* - Institutions
16	Support for initiatives and projects in the region	Group	Community - Institutions
<b>U</b>	Environmental education programs and initiatives	Group	Community - Institutions
18	Anti-corruption policies	Group	Suppliers*-Institutions
19	Public policy	Group	Institutions
20	Effective management of roadworks for digging and pipe-laying	Heat Sector - Networks Sector	Institutions - Community - Suppliers*
21	Fairness and transparency in customer relations	Group	Customers - Institutions - Community
22	Quality of provided services and attention to customers	Group	Customers - Institutions - Community
23	Customer responsibility	Group	Customers - Institutions - Community
24	Internal and external communication to stakeholders	Group	External stakeholders

#### Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

Statement of compliance

Statement of the level of compliance with GRI guidelines

<sup>\*</sup> Limitation of scope: reporting relates only to direct suppliers and not to those of second level. \*\* Limitation of scope: related to employees of contractors working on the Group's plants.

# The A2A Group partnerships A2A customer area energy markets served development services



1	The A2A Group	12
1.1	Business areas and structure of the Group	14
1.2	Size of the organization and markets served	16
1.3	Significant changes in the corporate structure	18
1.4	Companies outside the scope of consolidation	19

### The A<sub>2</sub>A Group

# 1.1 | Business areas and structure of the Group

A2A is today the largest Italian multi-utility company, a leader in the energy, environment, heating and networks sectors. With its 12,000 employees, it is a reality that looks to the future with competence and responsibility, also thanks to a business model based on diversification and synergy between all its activities.

It is the second national producer of energy, with a product mix geared to renewable energy sources from which 53% of the energy is generated, as well as the second largest operator in electricity distribution networks and among the leaders of the gas and water cycle networks. The Group is the Italian leader in environmental and district heating services, activity strongly integrated with a method of energy production increasingly oriented to respect for the environment.

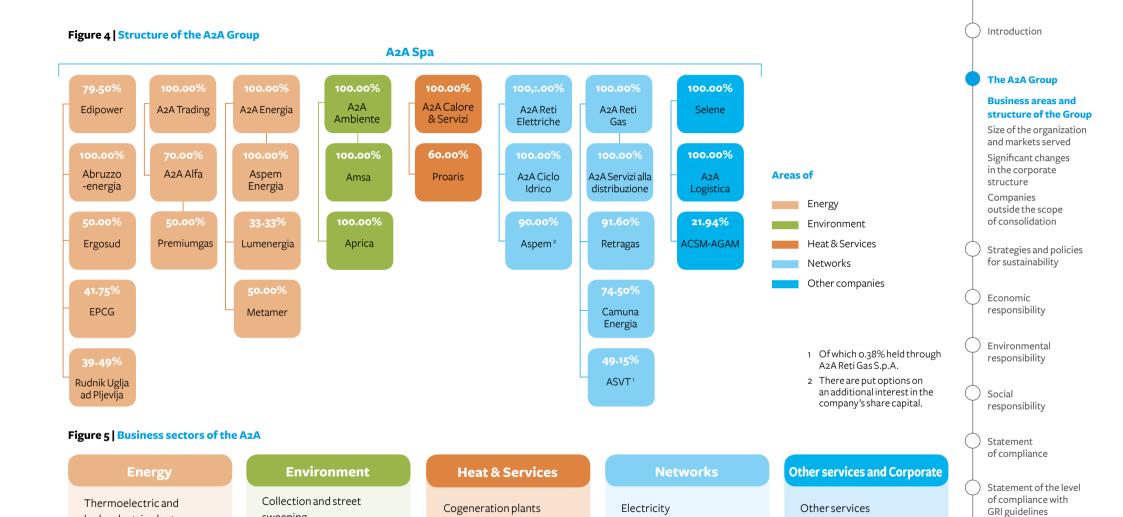
In this context, A2A Ambiente plays a fundamental role. The company was founded in 2013 and is the result of the experience and skills acquired by A2A in Italy and abroad in the environmental sector. In 2014 the A2A Group has achieved positive economic-financial results, revenues totalled 4,984 billion euro, gross operating income was 1,024 million euro.

A2A S.p.A. is listed on the Milan Stock Exchange and has registered offices at Via Lamarmora 230 - Brescia and administrative headquarters at Corso di Porta Vittoria 4-Milan.





A description of the sectors and the related quantitative and economic data may be found in the 2014 Report on Operations published at **www.a2a.eu** 



Gas networks

Integrated water cycle

Corporate services

District heating networks

Sale of heat and other

services

sweeping

recovery

Treatment

Disposal and energy

hydroelectric plants

Energy management

services

Gas networks Corporate

## The A<sub>2</sub>A Group

# 1.2 | Size of the organization and markets served

The information reported in the following table and in the map on the following page refer to the scope of consolidation of the consolidated financial statements of the A2A Group.

9.8 GW of installed production capacity

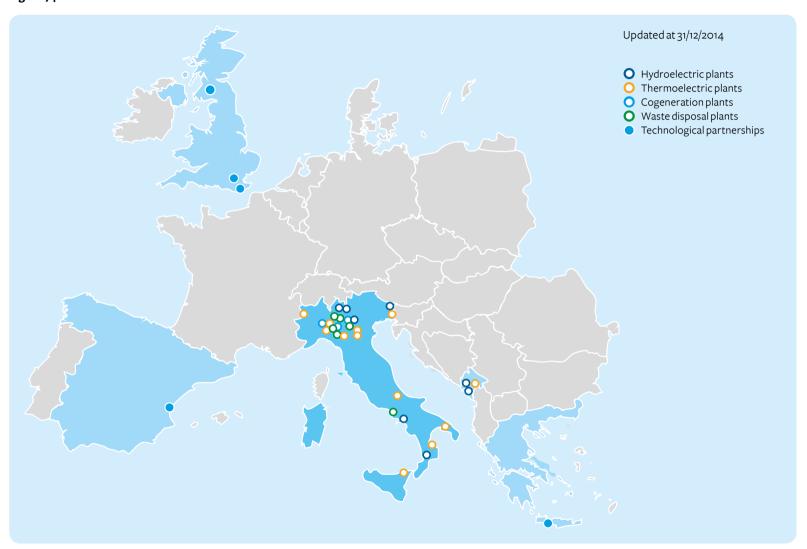


Figure 6 | Size of the organization\*

	2012	2013	2014
	2012	2013	2014
Revenues (M€)	6,480	5,604	4,984
Gross operating income $(M {\in})$	1,068	1,133	1,024
Net result $(M \in)$	260	62	-37
Net financial debt $(M \in)$	4,372	3,874	3,363
Equity of the Group and third parties $(M{\ensuremath{\varepsilon}})$	3,697	3,348	3,179
<b>Dividend</b> (€ per share)	0.026	0.033	0.0363
Average market capitalization $(M {\+ilde{\in}})$	1,574	1,990	2,639
A2A people	12,563	12,392	11,971
Installed capacity (GW)	12.0	10.3	9.8
Electricity produced (GWh)	16,107	16,267	14,671
Heat distributed through district heating (GWht)	2,217	2,382	1,951
Waste treated (Kton)	2,457	2,517	2,594
Electricity distributed (GWh)	14,053	13,628	13,230
Gas distributed (Mcm)	2,010	2,076	1,739
Water distributed (Mcm)	69	63	60

<sup>\*</sup>Include EPCG.

Figure 7 | Markets served



Introduction

#### The A2A Group

Business areas and structure of the Group

# Size of the organization and markets served

Significant changes in the corporate structure

Companies outside the scope of consolidation

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

Statement of compliance

Statement of the level of compliance with GRI guidelines

### The A<sub>2</sub>A Group

# **1.3** | Significant changes in the corporate structure

In 2014, in line with the progressive optimization of invested capital and improvement of the operational management of the Group, A2A completed two major transactions that involved **Edipower**:

- Integration of Edipower corporate staff structures: with effect from January 1 Edipower sold, by transfer of a business unit, its corporate staff activities and remote hydroelectric to A2A S.p.A. and services of Energy Management to A2A Trading; in parallel, the Edipower Engineering structure has been strengthened with professionals from the parent company. During the course of the year, the process already initiated of operational homogenization and integration of structures and processes then continued.
- Edipower Dolomiti Energia shareholding trade: on September 4, in execution of the agreements between A2A and Dolomiti Energia related to the acquisition of Edipower, A2A and Dolomiti Energia finalized the trade of the shareholding of 8.54% of the share capital of Edipower held by Dolomiti Energia with 7.91% of the share capital of Dolomiti Energia held by A2A. Following the finalization of the operation, the shareholding structure of Edipower S.p.A. is as follows: A2A 79.5%, SEL 8.5%, Mediobanca 5.1%, Fondazione CRT 4.3%, BPM 2.6%.



# 1.4 | Companies outside the scope of consolidation

As described in the introduction, the Montenegrin company EPCG was not consolidated in the 2014 Sustainability Report since A2A's holding was less than 50%. However, in that EPCG is material from both an environmental and social standpoint, the following summary information is provided on this company.

Figura 8 | EPCG power production plants

		Thermoelectric plants			
	PIVA	Perucica	Small hydro plants*	Total hydro	Pljevlja
Installed power (MW)	342	307	2.47	651	220
Energy produced (MWh)	679,338	1,006,682	6,630	1,692,650	1,322,062

Summarized below are the main data relating to EPCG's social responsibility.

Figure 9 | EPCG personnel by category and type of contract

		2012			2013			2014	
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Senior managers	30	1	31	29	1	30	34	1	35
Middle-managers	37	13	50	42	18	60	39	21	60
White-collar workers	771	456	1,227	726	458	1,184	708	445	1,153
Blue-collar workers	1,285	30	1,315	1,131	14	1,145	1,071	11	1,082
Permanent workers	1,891	458	2,349	1,878	461	2,339	1,829	458	2,287
Fixed-term contract workers	232	42	274	50	30	80	23	20	43
TOTAL	2,123	500	2,623	1,928	491	2,419	1,852	478	2,330
Of whom part-time contracts	38	44	82	22	12	34	11	5	16

<sup>\*</sup> The small hydrop lants also include those of Glava Zete and Slap Zete, which are owned by Zeta Energy. EPCG holds a capital stake in Zeta Energy of 57.86%.

Introduction

#### The A2A Group

Business areas and structure of the Group Size of the organization and markets served

Significant changes in the corporate structure Companies

Companies outside the scope of consolidation

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

Statement of compliance

 Statement of the level of compliance with GRI guidelines

### The A2A Group

Figure 10 | EPCG hiring during the past three years by category

		2012		2013		2014			
	Men	Women	Total	Men	Women	Total	Uomini	Donne	Totale
Permanent workers	5	0	5	8	2	10	15	4	19
Fixed-term contract workers	35	12	47	43	25	68	6	6	12
TOTAL	40	12	52	51	27	78	21	10	31

Figure 11 | Customers served by EPCG

Supply points for electricity service	2012	2013	2014
Domestic	337,495	344,589	350,302
Other consumers by voltage level:			
35kV	25	24	24
10kV	499	517	522
o.4Kv-I stepen	1,566	1,350	1,396
o.4kV - II stepen	30,367	31,589	32,486
TOTAL	369,952	378,069	384,730

Figure 12 | Number and amount of EPCG providers

	Type of		2012		013	2014	
Company function	Type of contract	Number	Importo ordini (€)	Numero di contratti	Importo ordini (€)	Numero di contratti	Importo ordini (€)
	Supplies	65	1,521,312	74	2,067,732	35	2,998,454
Generation	Services	58	2,711,575	63	2,377,417	50	4,173,339
	Works	31	1,142,214	26	5,368,269	17	1,924,931
	Supplies	39	5,711,999	44	6,101,907	31	4,452,346
Distribution	Services	4	202,159	14	585,380	6	448,043
	Works	18	3,713,421	82	4,079,180	56	8,374,704
	Supplies	20	582,216	28	1,138,489	5	943,637
Supply	Services	9	1,298,970	1	277,200	8	1,532,529
	Works	0	0	1	36,266	0	0
	TOTAL	244	16,883,866	333	22,031,840	208	24,847,984

#### Figure 13 | Sponsorship

	2013	2014
Sponsorships $(\mathbf{\in})$	300,000	308,500

Introduction

#### The A2A Group

Business areas and structure of the Group Size of the organization and markets served Significant changes in the corporate structure

Companies outside the scope of consolidation

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

Statement of compliance

Statement of the level of compliance with GRI guidelines

# 2 Strategies and policies for sustainability





2	Strategies and policies for sustainability	22
2.1	Mission and Vision	24
2.2	2015-2019 Strategic Plan	25
2.3	2013-2015 Sustainability Plan	26
2.4	Responsible management: human rights and anti-corruption	30
2.5	Corporate Governance 2.5.1 Risk management 2.5.2 QES Management Systems	33 36 37
2.6	Chart of stakeholders and engagement initiatives	38

# 2.1 | Mission e Vision



Quality service, sustainability, respect for the environment, innovation and technological development, and efficiency and synergy between the different business sectors: these are A2A's strong points. As Italy's leading multi-utility company, that intends to pursue its path of excellence, leveraging our strong connection to the local territory and developing new geographic and business areas to ensure continued value added for our customers, suppliers, employees, shareholders, community members, and institutions.

# 2.2 | 2015-2019 Strategic Plan

On April 9, 2015 the 2015-2019 Strategic Plan of the A2A was approved. The main objective of the Plan is to relaunch and redesign A2A, initiating a process of strategic repositioning that in 2020, will result in more modern multi-utility, leader in the environment, smart grids and new energy models, more balanced and profitable, able to seize the opportunities that will open up in the Green Economy and Smart Cities.

The main development lines of the Plan can be divided into three main areas, characterized by different missions:

- Restructuring and reduction of exposure in the thermoelectric sector;
- **2. Relaunch** of investments in key areas of the environment, networks and free energy market;
- **3.Redesign** of the mission of A2A to seize the opportunities of the future.

Regarding the 1st point, the following are expected: decrease over the term of the plan of thermoelectric capacity by 40%, significant reduction in operating costs (about 21 million euro per year), the reconversion of obsolete plants and about 35 million euro of investments in the flexibility of the existing Combined Cycles in order to play a leading role in the new electricity market. The restructuring activities of traditional generation are expected to contribute to the creation of about 148 million euro of incremental gross operating income by 2019.

With regard to the 2<sup>nd</sup> objective, it was planned to relaunch the investments (1.4 billion euro accumulated over the term of the plan out of a total of 2.1 billion euro of Group investments) with the aim of strengthening leadership in sectors characterized by excellent development prospects and profitability growth. The areas with the most intensive investments will be environmental activities (collection, treatment and recovery), gas distribution, district heating and retail businesses in the free market.

The 3<sup>rd</sup> area of action is aimed, through gradual and scalable investments, at laying the foundations to allow A2A to seize the growing options arising from the Smart Cities and the Green Economy. The achievement of these objectives will be pursued in accordance with three additional guidelines:

- **Discipline** in operations and in the capital structure, with the creation of an effective and efficient organization and a policy of growing dividends, however compatible with the strengthening of the financial solidity of the Group;
- Dialogue designed to value employees and the quality of life in the territories, also through the launch of territorial Sustainability Reports accompanied by precise commitments undertaken in stakeholder forums:
- Technological digitization and transformation:

The set of actions described above will contribute to achieving the following expected results:

- **Significant EBITDA growth:** 1.35 billion euro of gross operating income in 2019 (+32%).
- **Growth of return on invested capital:** from 8% to over 12%.
- Further reduction in debt: Net Financial Debt equal to about 2.5 billion euro in 2019, down over 800 million euro compared to 2014. Improvement in Net Financial Debt/EBITDA ratio from 3.3x to 1.9x.
- Relaunch of the dividend policy: the cash flow supports the dividend increase up to double at the end of the Plan.

Introduction

The A2A Group

Strategies and policies for sustainability Mission and Vision Strategic Plan 15-19

Sustainability plan 13-15
Responsible management:
human rights
and anti-corruption
Corporate governance
Chart of stakeholders

and engagement initiatives

Economic responsibility

Environmental responsibility

Social responsibility

Statement of compliance

 Statement of the level of compliance with GRI guidelines



# 2.3 | 2013-2015 Sustainability Plan

The Group's Sustainability Plan was updated in 2012 and includes the strategic priorities and commitments for 2013-2015.

The following table sets out the commitments undertaken with the Sustainability Plan and reports on the state of activities in 2014.

#### Governance

Commitment	Indicator	2012	2013	2014	Activities/results 2014
Develop stakeholder engagement.		· 大方			The database of the engagement initiatives undertaken in the year was also implemented in 2014. Over 240 initiatives mapped.
Define a Group sustainability policy.					Being defined.
Review the Quality, Environment and Safety Policy.					The new QES policy was enacted in October 2013.

### **Economic responsibility**

Commitment	Indicator	2012	2013	2014	Activities/results 2014
Sustain economic development in the local area in which the Group operates through direct employment and the spin-off work generated by our activities.					Hired 314 employees of whom over 30% on a permanent basis. Over 7,500 orders were issued, for a total of 830 million euro. Over 4.7 million euro were allocated to social clubs for initiatives for employees and about 4.5 million euro in sponsorships and donations.
Distribute value to stakeholders.	Gross global value added distributed (M€).	1,727	1,591	1,392	See details in section 3.3.
Make investments in production capacity.	Capital expenditure (M€).	353	280	307	See details in section 3.4.

### **Environmental responsibility**

Commitment	Indicator	2012	2013	2014	Activities/results 2014
	CO <sub>2</sub> eq (Mt CO <sub>2</sub> eq)	5.4	6.9	5.9	Compared to the previous year, there was a 15% decrease, mainly due to lower
Minimize direct emissions of greenhouse gases.	Average emission factor of CO <sub>2</sub> eq (g/kWh)	403	417	355	production at thermoelectric plants. Emissions of CO <sub>2</sub> equivalents were more than halved, thanks to better management of equipment containing these gases.
Minimize indirect emission of greenhouse gases.	CO <sub>2</sub> eq (Mt CO <sub>2</sub> eq)	0.10	0.17	0.15	Indirect emissions (Scope 2), due to the consumption of electricity, decreased in 2014 by about 16% due to lower plant operations.
Keep the proportion of energy produced from renewable sources high.	Production of renewable energy as a proportion of total energy (%).	35.90%	41.80%	52.90%	In 2014, the electricity produced by the Group's plants decreased by about 6%. In particular, the production of combined cycles (-40%) and cogeneration plants (-22%) has been greatly reduced due to the demands of the electricity market, while the production of hydro-electric plants (+19%) has greatly increased, mainly thanks to the contribution of the plants in Udine and Mese (Sondrio).
Minimize the consumption of water used in producing energy.	Water consumption (thousands of m³).	8,616	10,324	8,468	For initiatives undertaken by A2A for the containment of water resources, refer to section 4.1.3.

Introduction

The A2A Group

# Strategies and policies for sustainability

Mission and Vision Strategic Plan 15-19

### Sustainability plan 13-15

Responsible management: human rights and anti-corruption Corporate governance

Chart of stakeholders and engagement initiatives

Economic responsibility

Environmental responsibility

Social responsibility

Statement of compliance

Statement of the level of compliance with GRI guidelines

### **Employees**

Commitment	Indicator	2012	2013	2014	Activities/results 2014
Develop methods of systematic listening.	Employees involved in employee satisfaction surveys as a percentage of the total (%)	100%			There were no employee satisfaction surveys conducted in 2014.
Use of sustainability parameters in appraising the performance of the Group's employees.	Employees appraised using CSR parameters in the performance appraisal system as a percentage of the total (%)	47%	42%	46%	The process, initiated in 2009, by 2014 led to the appraisal of all senior managers, middle managers and white- collar workers of the Group's companies, with the sole exception of Camuna Energia and Edipower.
Limit fixed-term employment contracts.	Employees having fixed-term contracts as a percentage of the total (%).	1.5%	1.6%	1.7%	98.3% of employees are hired with a permanent employment contract. This confirms A2A's use of a stable contractual formula and marginal use of flexibility tools for specific emergency situations (extraordinary and temporary peaks of work, seasonality, and substitution of workers who are temporarily absent).
Reduce the frequency of accidents through the use of a training and prevention plan.	Accident frequency index (Group average total).	40.0	37.8	34.0	Certification work continued in accordance with the OHSAS 18001 standard to promote the adoption of an increasingly effective and efficient Safety Management System and updating continued of the guidelines and procedures to identify significant workplace health and safety roles.

# Suppliers

Commitment	Indicator	2012	2013	2014	Activities/results 2014
Spread a work safety culture among suppliers.					In 2014, 9 injuries were recorded in the Energy BU, with a prognosis of more than 3 days to recover, involving employees of contractors during activities on the main A2A plants. In 2014, training activities involved 93 employees of contractors, for a total of 372 hours of training provided.
Encourage the use of suppliers with QES certification.	Value of orders to certified suppliers as a percentage of the total value of orders (%)	>50%	60%	70%	At December 31, 2014, of validated suppliers declared to possess at least one certification. At the Group level, 70% of the value of the orders issued in 2014 went to suppliers with at least one form of certification.

#### **Customers**

Commitment	Indicator	2012	2013	2014	Activities/results 2014
Develop methods of systematic listening.					Amsa, Aprica, A2A Ciclo Idrico and A2A Energia conducted customer satisfaction surveys. The results are reported in section 5.2.
Maintain high customer satisfaction levels (A2A Energia).	A2A Energia customer satisfaction index.	95.1% (1 <sup>st</sup> HY 2012)	92.5% (1 <sup>st</sup> HY 2013)	95,6% (1 <sup>st</sup> HY 2014)	The value is the best result among the 37 companies involved in the survey, resulting in over 5% compared to the national average.
Develop web and mobile services.	Customers registered at bollett@mail.	154,988	196,000	227,000	The increase has been possible also thanks to a series of initiatives to support the promotion of the service, including: telephone campaign; promotion of the service on the envelopes containing the bills; DEM of simplified activation, without the need for registration at the online counter, for eligible clients; promotion of the service in the bill (for eligible customers) via QR Code.
Extend loyalty programs.	Number of customers with loyalty program memberships (Chiara2a).	59,719	119,219	147,191	The main new feature of 2014 was the introduction of a Prize Catalogue of Chiara2a: thanks to the accumulation of points, as well as shopping vouchers already in the program, each member also has the option, once the different thresholds are reached, to request the prizes from four different categories (Home & Family, Technology, Leisure, Voucher & Shopping vouchers).
Extend the application of the joint settlement procedure.					Offered to all energy seller companies.
Carry out multilingual and audio language campaigns.					At the main branches of A2A Energia multilingual information brochures are available (including a guide to the bill) and there are also operators capable of managing multilingual relations. In 2014, the new Aprica site also went online with different sections of the site available in 8 languages other than Italian, similar to that of AMSA.

### Community

Commitment	Indicator	2012	2013	2014	Activities/results 2014
Carry out/encourage environmental education activities.	Number of people visiting the Group's plants	19,245	24,331	22,557	See details in section 5.4.
Collaborate with environmental and consumer associations.	Number of projects started up on the basis of meetings with residents/associations.	8	12	11	See details in section 5.4.

Introduction

The A2A Group

# Strategies and policies for sustainability

Mission and Vision

Strategic Plan 15-19

### Sustainability plan 13-15

Responsible management: human rights and anti-corruption Corporate governance

Chart of stakeholders and engagement initiatives

Economic responsibility

Environmental responsibility

Social responsibility

Statement of compliance

Statement of the level of compliance with GRI guidelines

### 2

# 2.4 | Responsible management: human rights and anti-corruption

Respect for human rights and fight against corruption are key to sustainable development of the companies and the organizations that are part of it. They are current issues in all economic and social contexts, not only in developing countries but also in those that are economically more advanced, such as Europe, where A2A operates and pursues its mission.

In its Code of Ethics **A2A reaffirms respect for human values** and condemns any type of discrimination based on age, gender, sexuality, race, state of health, nationality, political opinions, religious beliefs, etc.

Also Edipower, a company of the Group, in June 2013 formalized this commitment by drawing up specific "Guidelines for the protection of human rights".

In 2014, 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 not subject to any legal action regarding violations of this kind and was not in any way involved in episodes of child or other forced labour. Regarding respect for human rights in the supply chain, it should be noted that only 0.2% of the value of orders made in 2014 involved non-EU suppliers, mainly operating in countries where basic human rights are respected (Switzerland, the USA, Luxembourg and San Marino).

In keeping with as stated in the Code of Ethics A2A banishes and pursues corruption practices, illegitimate favours, collusion, requests for benefits, payment of tangible and intangible benefits and

other benefits aimed at influencing or compensating representatives of institutions as well as employees of the Group.

A2A has a Management, Organization and Control Model pursuant to Legislative Decree no. 231/2001, as amended (hereinafter the "Model"). The implementation of the model envisages that activities considered "sensitive" shall be carried out in accordance with the express provisions of the Model; any conduct not in line will, in fact, lead to disciplinary action by the Company. The Board of Directors has appointed a Supervisory Body entrusted with the task of supervising the functioning and compliance of the Model and its constant updating. The composition and functions of the Supervisory Body are in accordance with the criteria identified by Legislative Decree no. 231/2001, as amended, and the related guidelines of Confindustria.

All stakeholders can report through appropriate channels of confidential information (e-mail accounts, e-mail, and internal mail), any violation or suspected violation of the Code of Ethics and of the Model to the Supervisory Body, which shall analyse and manage the reports with the possible support of the relevant structures.

Messages can be sent via e-mail to "odv@a2a.eu" or via letter to: Organismo di Vigilanza (Supervisory Body) A2A S.p.A., Corso di Porta Vittoria 4, 20122 Milan (Italy) 26 companies of the Group (equal to 100% of employees) have adopted an Organizational, Management and Control model pursuant to Legislative Decree no. 231/01, whose activities are systematically monitored also for risks connected with corruption.

#### In 2014 there were no incidents of corruption

and there were no pending cases relating to corruption incidents with the exception of a single proceeding, relating to events in 2009, for which the formal filing has been pending for some time.

Following the adoption/revision of the Model pursuant to Legislative Decree 231/2001 in 2014, specific classroom and e-learning training sessions were held for a total of over 1,000 hours of training.



The Edipower guidelines are available at **www.edipower.it** 

Further information on the Supervisory Body and the Internal Audit function may be found in the Report on Corporate Governance Code and Ownership Structures for the year ended December 31,2014, at the website www.a2a.eu

#### 2014 CEEP CSR Label Award

A2A received the "CEEP-CSR Label", a prestigious award awarded to public utility companies that have distinguished themselves in the application of best European standards and sponsored by the CEEP - (European Centre of public utility companies) in Brussels. The "CFFP-CSR Label" is a trademark created to reward companies that have been able to integrate, on a voluntary basis, the Corporate Social Responsibility-CSR into their business practices. A2A was awarded for three projects of excellence: the Observatory on unfair commercial practices, launched in November 2011 in cooperation with the Consumers' Associations. which has gradually been implemented in important initiatives (from the Protocol of self-regulation to the Joint Committee A2A Energia/Consumers' Associations); the project **Smart Domo** Grid, developed in the Villagio Violino in Brescia, which hinges on the use of smart grids; the environmental education project "Raccogli, trasforma, crea" (Collect, transform, create) organized by A2A Ambiente in collaboration with the associations ACSSA, Adiconsum, Amici della Terra e Lega Consumatori.



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 realizing a healthy and sustainable world economy.

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

- Human rights;
- Labour rights (further details can be found in the section "A2A People");
- Environment (further details can be found in the section "Environmental Responsibility");
- Fight against corruption.

In 2014, A2A took active part in "Reporting", "Human rights" and "Sustainable supply chain" work groups set up by the Italian network of the Global Compact (further details on the sustainable supply chain work group can be found in the section "Suppliers").



A2A is also a member of the **Sodalitas Foundation**, which promotes sustainable business in the Italian market.



In 2014, A2A participated in the first Inter-company Observatory on Sustainability, promoted by ASAM - Association for Managerial and Management Studies of Università

Cattolica, in collaboration with ALTIS - Alta Scuola Impresa e Società and with CRG - The Change Company. The idea stems from the need to make participating companies fully aware that sustainability in the business world is no longer a tactic option, but an absolute necessity to ensure the future of the next generations. The Observatory has the objective of defining the model of sustainable business, environmentally.

### **Global Compact**

A2A promotes the universal principles of the 4 areas of interest



Introduction

The A2A Group

# Strategies and policies for sustainability

Mission and Vision Strategic Plan 15-19 Sustainability plan 13-15

# Responsible management: human rights and anti-corruption

Corporate governance
Chart of stakeholders
and engagement initiatives

Economic responsibility

Environmental responsibility

Social responsibility

Statement of compliance

Statement of the level of compliance with GRI guidelines



#### A2A at the CSR and social innovation event



e della

sociale

innovazi one

A2A participated in the 2014 Event of CSR and Social Innovation: the most important event in Italy dedicated to the evolution of corporate responsibility towards "corporate social innovation" promoted by Università

Bocconi, CSR Manager Network, Unioncamere, Alleanza delle Cooperative Italiane, Fondazione Sodalitas, Koinètica. A2A was present with an initiative entitled "Let's develop our sustainability together": a time of listening and dialogue with stakeholders through an interactive edutainment activity designed to solicit participation. In a dedicated area, the threedimensional materiality matrix of A2A was been set up and participants were asked to vote on issues of major interest through 4 tokens to be inserted in the appropriate ballot box. The vote was accompanied by sharing the best environmental, economic and social performances of A2A.





# 2.5 | Corporate Governance

On June 13, 2014, the Shareholders' Meeting of A2A appointed for three years, with the mechanism of the list vote, the **Board of Directors** (BoD) consisting of the following 12 members:

POSITION	NAME	INDEPENDENCE*	YEAR OF BIRTH	CONTROL AND RISKS COMMITTEE	APPOINTMENTS AND REMUNERATION COMMITTEE	COMMITTEE FOR THE TERRITORY
Chairman (C.)	Giovanni Valotti		1962	-	-	X (P.)
<b>Deputy Chairman</b> (D.C.)	Giovanni Comboni	X	1957	-	X (P.)	-
Chief Executive Officer	Luca Valerio Camerano		1963	-	-	-
Director	Mario Cocchi**	X	1953	X (D.C.)	-	-
Director	Fausto Di Mezza		1971	X	-	-
Director	Michaela Castelli	X	1970	X (P.)	-	-
Director	Stefano Pareglio	X	1963	-	-	X (D.C.)
Director	Stefano Cao	X	1951	-	X	-
Director	Elisabetta Ceretti	X	1966	-	-	X
Director	Antonio Bonomo	X	1951	-	X	-
Director	Luigi De Paoli	X	1949	-	-	X
Director	Secondina Giulia Ravera	X	1966	Х	-	-

Introduction

The A<sub>2</sub>A Group

# Strategies and policies for sustainability

Mission and Vision Strategic Plan 15-19 Sustainability plan 13-15 Responsible management: human rights and anti-corruption

#### Corporate governance

Chart of stakeholders and engagement initiatives

Economic responsibility

Environmental responsibility

Social responsibility

Statement of compliance

Statement of the level of compliance with GRI guidelines

<sup>\*</sup> Pursuant to article 3 of the Corporate Governance Code of Listed Companies.

<sup>\*\*</sup> As a result of the resignation communicated on March 27, 2015 by the Director Mario Cocchi, the Board of Directors at its meeting of April 9, 2015 co-opted, pursuant to articles 18 of the current By-laws and 2386 Civil Code, Mr. Giambattista Brivio, who will remain in office until the next Meeting.



The Corporate Governance Code of Listed Companies is available at www.borsaitaliana.it

The Report on Corporate Governance and Ownership Structures for the year ended December 31, 2014 is available at www.a2a.eu Governance section

For further information on the Committees and their mission refer to the Report on Corporate Governance and Ownership Structures for the year ended December 31, 2014 available at www.a2a.eu Governance

For further information on the remuneration received by the Board of 31, 2014 refer to the 2015 Remuneration Report at www.a2a.eu

The Board of Directors has the most ample powers for the ordinary and extraordinary management and appointed an **Executive Committee** made up of three members: the Chairman Giovanni Valotti, the Deputy Chairman without powers Giovanni Comboni and the Chief Executive Officer Luca Valerio Camerano. The Committee mainly has functions of a consultative nature for coordinating the executive directors' work and functions of a propositional nature for the Board of Directors.

In the Board, there are no other Directors with executive authority besides the Chairman and Chief Executive Officer. The current Board of Directors approved the establishment, internally, of the following Committees, setting a budget intended to offer support to the activities of said Committees with regard to their specific needs:

- Appointments and Remuneration Committee;
- Control and Risks Committee:
- Committee for the Territory.

In the composition of the Committees, the Board took into account the independence requirements and professional characteristics of the Directors, so that each Committee was made up of members whose competence and professionalism was appropriate and enhanced with respect to the tasks assigned to the related Committee of belonging.

In particular, the **Committee for the Territory** has the task to assist with information, advice and proposals to the Board of Directors, to the extent applicable, the Chairman of the Board in defining guidelines and initiatives regarding:

• the implementation and promotion of structured means of comparison (listening and proposal) with the territories in which the A2A Group operates,

- also through the implementation of initiatives of mobilization and involvement of all stakeholders:
- the development of relations with institutions. organizations and research centres aimed at creating a favourable environment for the A2A Group;
- the definition of guidelines and development goals of the activities of the A2A Group, to be shared with local authorities:
- evaluation and reporting of the impacts on the territories resulting from business activities;
- the development of the company's social responsibility and environmental responsibility;
- development, also in terms of transparency and efficiency, of relationships with suppliers;
- cultural and promotion activities of the image on the territories in which the A2A Group operates;
- relations with the AEM and ASM Foundations, and harmonization of their activities with the statutory purposes of enhancement of historical and artistic heritage and the territory.

The **delegation process** for economic, environmental and social issues, as well as any other form of delegation, is through a specific internal procedure, which involves the identification of the need for attribution/formalization of power and verification of compatibility with the Model of Powers by the internal function "Proxies and Delegations".

Information on remuneration as well as information on agreements between the company and members of the Board of Directors that provide indemnities in case of resignation or dismissal without just cause or if their employment is terminated following a takeover bid is provided in the Remuneration Report, as per article 123-ter of the CFA.

#### A<sub>2</sub>A's values:

(from the Group's Charter of Values)
Excellence in results, Responsibility,
Team spirit, Innovation, Sustainability



Directors and Auditors participate in initiatives aimed at providing them with adequate knowledge of the business sector in which the company operates, the business dynamics and their evolution, including relevant the regulatory and self-regulatory framework of reference, in accordance with the criterion 2.C.2. of the Code. In particular, during the five discussion sessions held in 2014. an overview of the portfolio of activities of the A2A Group and key economic data and market trends, scenario and competitors was presented to the Directors and Auditors. In addition, there was a presentation on the historical evolution and the creation of the company, analysis of the economic and financial results by business sector, the evolution of the market by sector, the business segments of the Group by sector, the competitive scenario by sector and the guidelines for the preparation of the Business Plan.

In compliance with the provisions of the Code of Corporate Governance for Listed Companies, the Board of Directors conducted its assessment for the year 2014, on the size, composition and functioning of the Board and its Committees.

The self-assessment was conducted in March 2015, for the year ended December 31, 2014 and was carried out in line with the most advanced methodology at international level, with the assistance of the consulting firm Egon Zehnder.

Directors report to the Board of Statutory Auditors promptly and, in any case, on a quarterly basis on the activities and transactions of major economic and financial importance carried out by the company or its subsidiaries.

The Director shall inform the other Directors and the Board of Statutory Auditors of any personal interest or on behalf of third parties in a transaction involving the company, specifying the nature, terms, origin and scope; if it concerns the CEO, the latter shall refrain from carrying it out, entrusting it to the collegial body.

A2A manages its internal and external corporate governance using the following instruments:

- Code of Ethics
- Organizational, Management, and Control Model
- QES Policy
- QES Management Systems



All documents mentioned above are available at www.aza.eu

Introduction

The A2A Group

# Strategies and policies for sustainability

Mission and Vision
Strategic Plan 15-19
Sustainability plan 13-15
Responsible management:
human rights
and anti-corruption

#### **Corporate governance**

Chart of stakeholders and engagement initiatives

Economic responsibility

Environmental responsibility

Social responsibility

Statement of compliance

Statement of the level of compliance with GRI guidelines

### 2.5.1 | Risk management

The A2A Group has a risk assessment and reporting process designed to make business risk management an integral and systemic part of management processes. It is based on the Enterprise Risk Management methodology of the Committee of Sponsoring Organizations of the Treadway Commission (CoSO report) that takes its cue from other international frameworks.

The A2A risk model identifies 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 coverage.

The impact linked to **climate change** for the A2A Group is represented, in particular, by the following factors: changes in precipitation, with a relapse in terms of productivity of hydroelectric plants; change in temperature, which can affect the productivity of thermoelectric plants and, marginally, the utilization capacity of transport infrastructure and gas storage; level of use by end users of the products/services of the Group; physical effects to which the plants are subjected due to temperature variations. These effects, which can have both positive and negative effects on the results of the Group depending on their occurrence, are taken into account in the forecast through the adoption of reference data based on historical series and checked

### New environment, health and safety risk management model

In 2014, a **new model** was introduced in the A2A Group for the management of issues and risks regarding the environment, health and safety. The new model is not limited to ensuring compliance with legal requirements, but aims to effectively prevent all accidental events that may have an impact on people and the environment, with a view to continuous improvement and in line with leading international standards (ISO: 14001, OHSAS: 18001, etc.). This model has been designed in accordance with the risk and control system of the Group and is based both on the allocation of powers needed for risk management, and on the separation of activities and responsibilities for control and enforcement, so as to avoid risk conditions arising from potential conflicts of interest.

With reference to the organization, a new set of environment, health and safety functions has been designed and implemented (at Group level and for individual companies), envisaging a division on three areas depending on the level of risk to be controlled and the complexity managed:

• Environment, Health and Safety of the Group, which defines the issues, coordinates and monitors activities, through audits, to ensure the adoption in the Group

of best practices internal and external of management of environment, health and safety issues. Said structure also monitors the regulatory evolution and provides specialist support and advice to Group companies;

- Company Environment, Health and Safety which defines, implements and updates the environment, health and safety system management of the same in line with the guidelines of the Group and based on the specific nature of the business of reference;
- Plant/Area Environment, Health and Safety which operationally manages the environment, health and safety risk as required by the company management system.

This configuration approaches the controls at the sources of danger, providing all companies with dedicated structures and providing more resources in the most critical operating contexts.

At the same time, communication actions have been activated to promote and enhance the culture of environment, health and safety initiatives of cultural and behavioral change in relation to safety at work are being studied and planned.

on the final figures. With reference to hydroelectric production appropriate policies are entered into for basin management in order to mitigate the effects of precipitation; on the thermoelectric plants suitable cooling systems allow reducing the effects on production efficiency related to temperature variations.

To avoid mistakes in hedging exposures on the **emission trading** market, which could lead to costs for the Group, a specific procedure for managing CO<sub>O</sub> allowances regulates terms and timing of scenario data transmission, with reference to prices and budget and final hedging needs. The procedure guarantees transparency in managing hedges and optimizing performance.

The management of **health and safety** risk is guaranteed by worker safety management systems in accordance with OHSAS18001 with training and updating employees in health and safety and periodic auditing initiatives. In summary, the policy of prevention and protection adopted by the Group aims at "zero risk".

The A2A Group operates in a highly regulated sector where the **legislative and regulatory situation** is in constant (and not always predictable) evolution, especially for the electricity and natural gas sectors, as well as for the sectors relating to the management of the water cycle, environmental and district heating services.



For a detailed description of the types and of the risk management policy refer to the 2014 Report on Operations available at www.a2a.eu Investors section

The Group adopts policies for monitoring and managing legislative risk, in order to mitigate the impact to the greatest extent possible through: collaborative dialogue with the institutions and with the bodies which govern and regulate the sector, active participation in trade associations and the work groups set up at these entities and a detailed review of changes in legislation and the provisions issued by the sector Authority.

In 2014, no sanctions were imposed on the Group companies for non-compliance with laws and regulations.

### 2.5.2 | QES Management Systems

All the main Group companies have had their Quality, Environment and Safety processes certified. The major changes for 2014 concern:

- the issue of the certificate of compliance with EU Regulation 1179/2012 of the treatment plant of the glass of Asti of A2A Ambiente:
- environmental certification of the plant for biodrying of the company Bioase;
- the release of the EMAS registrations for Abruzzoenergia and Aprica, for the operating site Silla of AMSA and the waste-to-energy plant in Acerra:
- the extension of the safety certification to the premises in Como of Aprica;
- the rationalization of certificates of A2A Ambiente, successfully completed obtaining the grouping of existing ones.

By the end of 2014 the following had been certified:

- with reference to the UNI EN ISO 9001:18 companies, for 19 certificates issued;
- with reference to UNI EN ISO 14001: 17 companies, for 23 certificates issued;
- with reference to OHSAS 18001: 16 companies, for 23 certificates issued.

In addition, the A2A Group has 24 active EMAS registrations.

In 2014, the management model of internal audits has been revised that, compared to the past, ensures wider coverage of operating locations and processes and which is now more oriented to the verification of constant and full compliance with requirements and regulations. Also, the annual program has involved the inclusion also of specific audits related to road works of laying of distribution networks. During 2014, there were **60 internal audits**, which helped to identify areas of improvement and define action plans whose development is constantly monitored, also thanks to the use of specific software which ensures monitoring the progress of actions for improvement.

mal audits
st, ensures
processes
fication of
ments and
volved the
oad works
o14, there
to identify
ans whose
anks to the
itoring the

Mission and Vision
Strategic Plan 15-19
Sustainability plan 13-15
Responsible management:
human rights
and anti-corruption
Corporate governance
Chart of stakeholders
and engagement initiatives
responsibility

Economic
responsibility

Environmental
responsibility

Statement

of compliance

GRI guidelines

Statement of the level

of compliance with

Introduction

The A<sub>2</sub>A Group

**Strategies and policies** 

for sustainability

The QES Policy is available at www.a2a.eu Sustainability section

### 2

## 2.6 | Chart of stakeholders and engagement initiatives

The various stakeholder categories of the A2A Group are quite interconnected. It is sufficient to bear in mind, for example: that the parent company's main shareholders are the very Municipalities in which the Group operates, and that these Municipalities (and hence the institutions) are also customers; that the citizens (and hence the community) are in turn customers; that among the customers there are both employees and suppliers. This is therefore a "map" that envisages the intersection of multiple "threads" that connect the various stakeholders to the company and vice versa, in a virtuous network of relations and interests.

**Listening to and understanding the needs of its stakeholders** to ensure positive, stable, and long-lasting relationships is one of the main commitments of the A2A Group. Also for this reason, already in 2013 a structured reporting system was created using a database to identify the engagement and input of Group stakeholders.

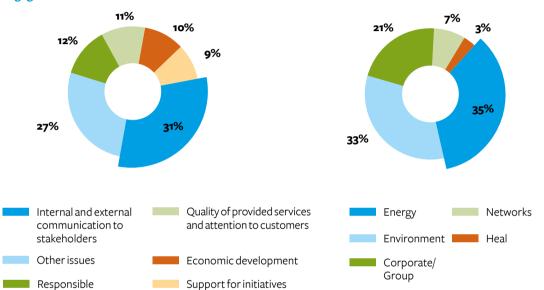
In 2014, the following were organized in all sectors and in all regions where the Group operates: **more than 240 initiatives** of stakeholder engagement: meetings, work groups, surveys, investigations, focus groups, conferences, press conferences, special events, initiatives of visits to plants, etc. The stakeholder groups that were most involved were the local communities and institutions/associations in the territories of Milan, Brescia, Naples and Bergamo.



Figure 14 | Material issues addressed during engagement initiatives

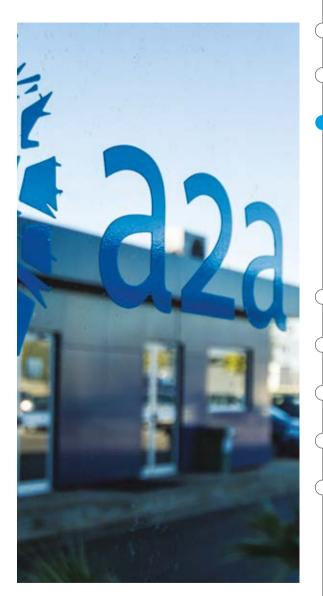
management of the

business sectors



and projects in the region

Figure 15 | Engagement initiatives by sector involved



Introduction

The A2A Group

## Strategies and policies for sustainability

Mission and Vision Strategic Plan 15-19 Sustainability plan 13-15 Responsible management: human rights and anti-corruption Corporate governance

Chart of stakeholders and engagement initiatives

Economic responsibility

Environmental responsibility

Social responsibility

Statement of compliance

Statement of the level of compliance with GRI guidelines

### Strategies and policies for sustainability

The following table shows the main initiatives carried out in the year; some of these are discussed in detail in subsequent sections of this Report.

Figure 16 | Stakeholder engagement initiatives activated in 2014

Stakeholders involved	Mode of communication and involvement	Issues addressed during engagement activities, identified by territory
		<ul> <li>Environment Sector:</li> <li>Performance of the waste-to-energy plant (Naples, Brescia)</li> <li>Communication campaign on the waste-to-energy plant (Naples)</li> <li>Content of the customer satisfaction survey (Milan, Bergamo)</li> <li>Updating and drafting of the Charter of quality of services (Milan, Bergamo and province of Brescia)</li> <li>New differentiated collection methods (Como)</li> <li>Expo Projects "Risparmiati lo spreco" (Save waste) and "Alimentazione: energia per la vita" (Food: energy for life) with A2A involvement on the waste issue</li> <li>Progetto Scuola (Naples)</li> </ul>
Consumer Associations	<ul><li>Meetings</li><li>Work groups</li><li>Committees</li><li>Plant tours</li></ul>	<ul> <li>Networks Sector:</li> <li>Public lighting service and management reports; project "direct line" for communications of failures (Bergamo)</li> <li>Management of roadworks (Bergamo)</li> <li>Quality of water and project for the reduction of hexavalent chromium (Brescia)</li> <li>Activities of A2A and Aspemand proposal of periodic work tables to create constant dialogue with the territory</li> </ul>
	<ul> <li>Territorial meetings on district heating act</li> <li>Energy Sector:         <ul> <li>Activities in 2014 of the National Consume</li> <li>Training call centre operators, analysis of t</li> <li>Energy Observatory data on the level of cu</li> <li>Conciliation service in Italy and in Europe</li> <li>Activities with the consumer Forum Friuli N</li> </ul> </li> </ul>	Heat Sector:  Data on the district heating network (Bergamo, Brescia)  Territorial meetings on district heating activities
		<ul> <li>Activities in 2014 of the National Consumers Union and Consumers' Association</li> <li>Training call centre operators, analysis of the first year of work of the Joint Committee</li> <li>Energy Observatory data on the level of customer satisfaction for the supply of electricity and gas</li> </ul>

			. 1	for sustainability
Stakeholders involved	Mode of communication and involvement	Issues addressed during engagement activities, identified by territory		Mission and Vision Strategic Plan 15-19
Environmental Associations	<ul><li>Meetings</li><li>Conferences</li></ul>	<ul> <li>Environment Sector:         <ul> <li>Data on emissions of the waste-to-energy plant (Brescia)</li> <li>Differentiated collection procedures implemented by Aprica and communication campaign to reduce waste (Como)</li> <li>A2A activities in Campania: waste cycle; role of STIR; plant operating costs and economic returns; renewal IEA and EMAS certification; plant expansion project (Naples)</li> <li>Progetto Scuola (Naples)</li> <li>Communication campaign on the waste-to-energy plant (Naples)</li> <li>Conference dedicated to waste and energy efficiency (Milan)</li> </ul> </li> <li>Networks Sector:         <ul> <li>Water quality, project for the reduction of hexavalent chromium and publication "The Water of Brescia" distributed to the entire population of the city (Brescia)</li> </ul> </li> <li>Energy Sector:         <ul> <li>Initiatives of environmental compensation for hydroelectric generation - fish restocking (Catanzaro, Sondrio)</li> <li>Drainage of dams: hypothesis draft of a protocol, in collaboration with Legambiente</li> <li>Verification study of the impact of the plant on the environment (Monfalcone)</li> <li>Dam project of Ambiesta (Udine)</li> <li>Transformation project of the thermoelectric plant (S. Filippo del Mela)</li> </ul> </li> </ul>		Sustainability plan 13-15 Responsible management: human rights and anti-corruption Corporate governance Chart of stakeholders and engagement initiatives  Economic responsibility  Environmental responsibility  Social responsibility  Statement of compliance

Statement of the level of compliance with GRI guidelines

Introduction

The A2A Group

Strategies and policies

### Strategies and policies for sustainability

Stakeholders involved	Mode of communication and involvement	Issues addressed during engagement activities, identified by territory		
		<ul> <li>Environment Sector:         <ul> <li>Activities with schools (Bergamo, Como)</li> <li>A2A activities in Campania: waste cycle; role of STIR; plant operating costs and economic returns; renewal IEA and EMAS certification; plant expansion project (Naples)</li> <li>New differentiated collection procedures implemented by Aprica and related communication campaign (Como)</li> <li>Activities A2A Ambiente and support to initiatives of the territory (Milan, Pavia, Sondrio)</li> <li>Differentiated collection in the offices/classrooms of Bicocca University (Milan)</li> <li>Updating Services Charter (Milan)</li> <li>Results of the Amsa customer satisfaction survey (Milan)</li> <li>Insertion sites of recovery of energy from waste at plants in Acerra, Brindisi, San Filippo del Mela between strategic infrastructure of national importance (Rome)</li> </ul> </li> <li>Networks Sector:         <ul> <li>Project "direct line" for communications of failures in the public lighting service through portal (Bergamo)</li> </ul> </li> </ul>		
	<ul> <li>Meetings         <ul> <li>Plant tours</li> <li>Press conferences</li> <li>Work groups</li> <li>Committees</li> </ul> </li> <li>Heat Sector:         <ul> <li>Regulations on efficient district heating (Rome)</li> </ul> </li> <li>Energy Sector:             <ul></ul></li></ul>	<ul> <li>Level of Chromium VI in the water of Brescia and comparison of public controls with private analyses (Brescia)</li> <li>Doubling of the purification inter-municipal plant in Mediavalle (Valle Sabbia)</li> </ul>		
Institutions/Regulatory and Inspection Authorities Associations		110000000000000000000000000000000000000		
		<ul> <li>Publishing DeNOx installed in the Monfalcone plant and communication actions on the territory of A2A (Gorizia)</li> <li>Energy Observatory data on the level of customer satisfaction for the supply of electricity and gas (Gorizia)</li> <li>Comparison for the IMU/ICI payment of the plants (Cosenza, Catanzaro, Udine, Cotrone)</li> <li>Terms and conditions for the renewal of hydroelectric concessions in Italy (Rome)</li> <li>Reimbursement of the additional charge for the hydroelectric concession paid by A2A to Municipalities in 2006-</li> </ul>		
		<ul> <li>Work groups with GCNI (Global Compact Network Italia) on supply chain, human rights and reporting (Milan)</li> <li>Working group with the Asam for the definition of a model of sustainable business (Milan)</li> <li>Work team with the University of Brescia for the development of research on environmental issues in the Padan Plain territory, with a focus on the areas of Milan, Bergamo and Brescia</li> <li>Measures to reorganize the local public administrations aimed at strengthening and consolidating the sector of subsidiaries (Rome)</li> </ul>		

Stakeholders involved	Mode of communication and involvement	Issues addressed during engagement activities, identified by territory	) Introduction
	Observatory on the Brescia waste-to-energy plant	<ul> <li>Verification and reporting of the environmental impacts of the plant, reports from citizens and proposed solutions developed by A2A</li> </ul>	) The A2A Group
Multi-stakeholder Forum	Technical working group for the Monfalcone plant	<ul> <li>Environmental status of the area, the impact of plant activities on the quality of life of citizens and implementation of the supplementary actions defined</li> </ul>	Strategies and policies for sustainability  Mission and Vision
	Observatory "Acqua bene comune" (Water common good) of the Municipality of Brescia	Water quality of the Brescia integrated water service	Strategic Plan 15-19 Sustainability plan 13-15 Responsible management: human rights
Shareholders Investors	<ul> <li>Conference call</li> <li>Lunch meeting</li> <li>Incontri one-to-one e group meeting con investitori/analisti</li> </ul>	<ul> <li>Economic-financial results of A2A</li> <li>Strategy and updating on the Business Plan</li> <li>Focus on the Italian energy sector</li> <li>New governance</li> <li>Internal reorganization and elaboration of the new business plan</li> <li>Focus on A2A business in the infrastructure sector (networks and district heating)</li> </ul>	and anti-corruption Corporate governance Chart of stakeholders and engagement initiatives  Economic
Customers (citizens and commercial operators of Bergamo)	Aprica Customer satisfaction surveys	Service quality	responsibility  ) Environmental
Customers (citizens and commercial operators of Milan and the Municipalities served by Amsa)	Amsa Customer satisfaction surveys	Service quality	responsibility  ) Social responsibility
Electricity and gas free market customers (VAT, SME and domestic users)	A2A Energia Customer     Satisfaction Survey     Survey	Service quality     Legibility of bills/contracts	Statement of compliance
Electricity and gas protected market customers (VAT, SME and domestic users)	<ul> <li>A2A Energia Customer Satisfaction Survey</li> <li>Survey</li> </ul>	<ul> <li>Service quality</li> <li>Legibility of bills/contracts</li> </ul>	Statement of the level of compliance with GRI guidelines

### Strategies and policies for sustainability

Stakeholders involved	Mode of communication and involvement	Issues addressed during engagement activities, identified by territory
Customers registered in the Chiara2a program	• Survey	Quality of services provided and attention to Chiara2a customers
A2A Heat & Services Customers	<ul> <li>District heating development plan</li> <li>Charter of services for district heating</li> </ul>	
		<ul> <li>Environment Sector: <ul> <li>Activities of the Filago waste-to-energy plant (Bergamo)</li> <li>Data of the waste-to-energy plant (Brescia)</li> <li>Learning project "L'Ambiente che ho in mente" (The environment I have in mind) (Bergamo)</li> <li>Focus group on: exploration of experiences and attitudes to the WTE plant in Acerra; analysis of the information brochure; analysis of proposals for communication (Naples)</li> <li>Focus groups on new livery for the operational means of Amsa and Aprica</li> <li>Differentiated collection procedure for foreign nationals (Milan)</li> <li>Separate collection WEEE (Milan)</li> <li>Awareness of organic waste collection (Milan)</li> <li>Progetto Scuola (Naples)</li> </ul> </li></ul>
Local community	<ul><li>Meetings</li><li>Projects with schools</li></ul>	Networks Sector:  • Water quality (Brescia)  • Development of the e-moving project in Valtellina (Sondrio)
Citizens Civic committees	<ul><li>Plant visits</li><li>Investigations/surveys</li><li>Focus group</li></ul>	<ul> <li>Heat Sector:</li> <li>Presentation district heating data (Brescia)</li> <li>District heating activities (Bergamo)</li> </ul>
		<ul> <li>Energy Sector:</li> <li>Survey on: socio-economic context of Monfalcone; level of informing the general public; advantages and disadvantages of the presence of the power plant; analysis of knowledge of the power plant (Gorizia)</li> <li>Survey on impact and recall of the communication campaign on the plant of Monfalcone (Gorizia)</li> <li>Visit to the plant in Somplago (Udine)</li> <li>Progetto scuola Edipower</li> </ul>
		Corporate:  • Career Day Initiatives for newly-graduates  • Survey on services offered by A2A. Investigated areas: socio-economic context of Brescia; district heating and WTE plants; water cycle; soil pollution (Brescia)  • Sustainability Report and CSR initiatives  • Progetto scuola A2A

Stakeholders involved	Mode of communication and involvement	Issues addressed during engagement activities, identified by territory	Introduction
Social media users	• Social channels: facebook, youtube, twitter • General and service information and advice on energy savings and differentiated collection		The A2A Group
Media	<ul><li>Meetings</li><li>Press conferences</li></ul>	Environment Sector:  • A2A activities in Campania (Naples) • New road cleaning plan (Brescia) • Inauguration of the remote control station for geolocation of the means in operation (Bergamo, Brescia) • Update of the progress of the differentiated collection plan (Como) • Main work site in Bergamo for the summer 2014  Networks Sector: • Program of the main work sites (Bergamo, Brescia) • Quality of water distributed by the Brescia aqueduct and project for the reduction of Chromium VI (Brescia) • Inauguration of the doubling of the purification inter-municipal plant in Mediavalle (Valle Sabbia) • Plan of public lighting of the city using LED lamps (Brescia)  Energy Sector: • Update on drainage activities by Edipower (Sondrio) • Presentation of the results of the Energy Observatory 2013 on the level of customer satisfaction for the supply of electricity and gas (Brescia) • Renewal of the framework agreement for the supply of electricity and gas between Confesercenti of eastern Lombardy and A2A Energia (Brescia	Strategies and policies for sustainability  Mission and Vision Strategic Plan 15-19 Sustainability plan 13-15 Responsible management: human rights and anti-corruption Corporate governance Chart of stakeholders and engagement initiatives  Economic responsibility  Environmental responsibility
		<ul> <li>Corporate:</li> <li>A2A Activities</li> <li>Awarding of winning schools of the projects active on the territory</li> </ul>	Social responsibility
<ul> <li>Meetings         <ul> <li>Surveys/investigations</li> <li>Focus Group</li> <li>Trade union meetings</li> </ul> </li> <li>Suppliers</li> <li>Meetings         <ul> <li>Meetings</li> <li>Surveys/investigations</li> <li>Focus Group</li> <li>Trade union meetings</li> </ul> </li> <li>Information campaign on the operation of the plant designed for the citizens of Acerra and Caivano</li> <li>Trades of the Networks Sector</li> <li>150 union agreements signed</li> </ul> <li>Conversion project Brindisi plant; process of validating suppliers; transparency and collaboration with suppliers; importance of adherence to the rules on environment, health and safety issues (Brindisi)</li> <li>Motivational activities for the agencies working for A2A Energia</li>		<ul> <li>Home-work mobility</li> <li>Inclusion of young graduate recruits</li> <li>Collaboration between the various commercial areas for the achievement of business results</li> <li>Information campaign on the operation of the plant designed for the citizens of Acerra and Caivano</li> <li>Trades of the Networks Sector</li> </ul>	Statement of compliance  Statement of the level of compliance with
		GRI guidelines	

# Economic responsibility





3	Economic responsibility	46
3.1	The Group's 2014 results	49
3.2	Formation of value added	50
3-3	Distribution of value added	51
3.4	Capital Expenditure	51
3.5	Shareholders and Investors  3.5.1 Composition of share capital  3.5.2 A2A in the stock market indices  3.5.3 A2A In the sustainability rating  3.5.4 Relations with shareholders and investors	53 53 53 55 55
3.6	Annexes	56

## 3 | Economic responsibility



Revenues earned for 4.984 million euro



307 million euro investments in the sectors of Group (+9.6% vs. 2013)



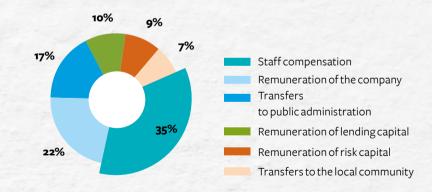
100.4 million euro invested in activities with environmental implications: reduction of emissions, increase in energy efficiency development of renewables, innovation

Figure 17 | Trends in key economic indicators for the past three years

ECONOMIC DATA	2012	2013	2014
Revenues (millions of euro)	6,480	5,604	4,984
Gross Operating Income (millions of euro)	1,068	1,133	1,024
Net Operating Income (millions of euro)	501	257	362
Net profit attributable to the Group (millions of euro)	260	62	-37
Dividends per share (euro)	0.026	0.033	0.0363*

Value added is a parameter that expresses the Group's capacity to create and distribute value across different stakeholder groups, including: employees, public administration, shareholders, financiers, businesses, and the community. In 2014, the gross global value added distributed by the Group was 1,392 million euro.

Figure 18 | Distribution of value added



<sup>\*</sup> Dividend proposed by the Board of Directors.

## 3.1 | The Group's 2014 results

**Revenues** earned by the Group in 2014 are 4,984 million euro, with consolidated gross operating income of 1,024 million euro (-9.6% compared to the previous year). The decline of 109 million euro is mainly attributable to the decline in electricity prices on the wholesale markets, the climate trend which had a negative impact on energy consumption as well as the expiry (October 2013) of the CIP 6 Convention on the production of electricity of the Brescia waste-to-energy plant.

The consolidated **net operating result** amounted to 362 million euro (+40.9%), while the net result showed a loss of 37 million euro (compared with a profit of 62 million in the year 2013), discounting the effect of write-downs totalling 207 million euro which, net of the tax impact, weigh on net result for 159 million euro. The write-downs concern thermoelectric assets and shareholdings of the Group and they aim to adjust their book value to the reduced earnings prospects deriving from a market characterized

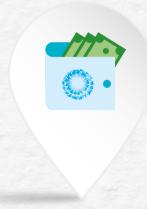
in structural terms by generation overcapacity. The loss for the period was also affected by the recognition of higher taxes for 65 million euro, due to abolition for unconstitutionality in 2015 of the "Robin Hood Tax", while it benefited from gains on disposals totaling 12 million euro.

Excluding extraordinary items, net profit amounted to 175 million euro, up 12.2% on the previous year (which had in turn been affected by extraordinary items for about 94 million euro).

During the year, the generation of net cash flow was positive and amounted to 511 million euro, after **capital expenditure of 307 million euro** and the payment of dividends for 102 million euro.

Net financial debt at the end of 2014 amounted to 3,363 million euro, a decrease of 511 million compared to December 31, 2013.

**4,984 milion euro** revenues earned by the A2A Group



Introduction The A2A Group Strategies and policies for sustainability Economic responsibility The Group's 2014 results Formation of value added Distribution of gross global value added Capital expenditure Shareholders and Investors Annexes Environmental responsibility responsibility Statement

of compliance

Statement of the level of compliance with GRI guidelines

## **Economic responsibility**

## 3.2 Formation of value added

Value added is the wealth that the Group generates in the year. It is the difference between revenues on the one hand and the intermediate costs and accessory and extraordinary items on the other. It is a parameter that measures the Group's ability to create value for its stakeholders.

To determine the formation of value added, A2A uses the methodology defined Social Accounts Group (Gruppo per il Bilancio Sociale - GBS). In 2014, the gross global value added distributed by the Group was 1,392 million euro.

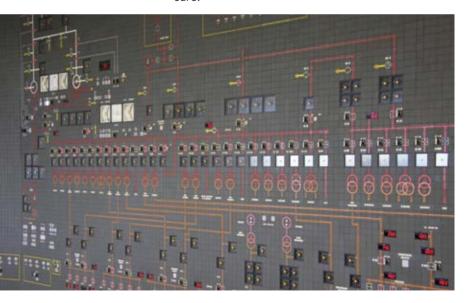


Figure 19 | Statement of calculation of global value added

	(millions of euro)	2012	2013	2014
+A	Production value	6,480	5,604	4,984
	Revenues from sales and services (-revenue adjustments)	6,256	5,388	4,742
	Change in inventories of work in progress, semi-finished and finished goods	0	0	0
	Change in contract work in progress	25	1	19
	Other revenues and income	199	215	223
	Public entity grants	0	0	0
-В	Intermediate costs of production	4,844	4,148	3,472
	Raw materials and consumables	145	158	158
	Consumption of energy and fuel	3,634	2,623	2,210
	Cost of services	801	802	698
	Other operating costs	103	65	86
	Accruals to bad debt provision - current receivables	32	53	27
	Provisions for risks and charges	44	87	30
	Other write-downs of fixed assets	2	250	159
	Other operating expenses	104	128	123
	Own work capitalized	-21	-18	-19
	GROSS ORDINARY VALUE ADDED	1,636	1,456	1,512
-C	Financial balance	17	-40	-64
	Financial income	35	15	7
	Financial expense which does not represent the remuneration of lending capital	-31	-32	-26
	Interest and expense from accounting for shareholdings in associates	13	-23	-45
-D	Accessory and extraordinary items	74	175	-56
	+/- Accessory items, net	29	100	-65
	+/- Extraordinary items, net	45	75	9
	GROSS GLOBAL VALUE ADDED	1,727	1,591	1,392
	- Operating depreciation and amortization	489	486	446
	NET GLOBAL VALUE ADDED	1,238	1,105	946

## 3.3 | Distribution of value added

The table shows the distribution of value added and provides an accurate view of the economic effect of A2A Group activities on its main stakeholders.

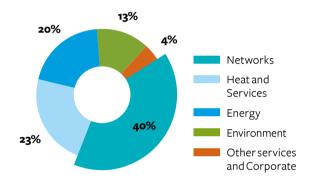
#### Figure 20 | Statement of distribution of gross global value added

(millions of euro)	2012	2013	2014
STAFF COMPENSATION	457	509	493
Wages and salaries	399	422	412
TFR (Employee Severance Indemnity)	24	26	25
Other costs	34	61	56
REMUNERATION OF RISK CAPITAL	51	94	121
Income distribution	40	81	102
Net income attributable to minority Interests	11	13	19
REMUNERATION OF LENDING CAPITAL	197	166	146
TRANSFERS TO PUBLIC ADMINISTRATION	227	260	234
Direct State taxes	79	104	77
Other State taxes and duties	3	1	1
Social security contributions	145	155	156
TRANSFERS TO THE LOCAL COMMUNITY	86	95	91
Direct local authority taxes	45	47	37
Local taxes and duties	35	43	49
Sponsorships	2	2	2
Contributions to the AEM and ASM Foundations, aid, donations, charities	4	3	3
REMUNERATION OF THE COMPANY	709	467	307
Reserves	220	-19	-139
Amortization and depreciation	489	486	446
GROSS GLOBAL VALUE ADDED	1,727	1,591	1,392

## 3.4 | Capital Expenditure

Capital expenditure totalling 307 million euro (+9.6% vs. 2013) was made in the A2A Group's various sectors in 2014.

Figure 21 | Investments in % by sector



In the **Energy Sector**, capital expenditure totalled 61 million euro, of which 13 million euro attributable to the EPCG Group. They mainly involved extraordinary maintenance at the hydroelectric units of Calabria and Udine (19 million euro), the coal thermoelectric plant in Monfalcone (11 million euro) in relation to the works of environmental improvements (DeNO<sub>x</sub>), the combined-cycle thermoelectric plant in Gissi (2 million euro) and other combined cycle plants of the Group (4 million euro). Other investments concerned the IT systems of A2A Trading and A2A Energia (6 million euro). As for the EPCG Group, investments are mainly related to extraordinary maintenance at the thermoelectric plant at Pljevlja (8.3

) Introduction

The A<sub>2</sub>A Group

Strategies and policies for sustainability

## Economic responsibility

The Group's 2014 results

Formation of value added Distribution of gross global value added

Capital expenditure
Shareholders
and Investors

Annexes

Environmental responsibility

Social responsibility

Statement of compliance

 Statement of the level of compliance with GRI guidelines

### **Economic responsibility**

million euro) and the hydroelectric plants at Perucica (1.4 million euro) and Piva (2.4 million euro).

In the **Heat & Services Sector** capital expenditure for the year amounted to 69 million euro and related to maintenance and development work on district heating networks (39 million euro) and new cogeneration plants (20 million euro), mainly in the Milan, Brescia and Bergamo areas, and the installation of new sub-plants at customers' premises (10 million euro).

In the **Network Sector**, capital expenditure for the year amounted to 124 million euro and involved:

• in the "Electricity distribution" sector (42 million euro), development and maintenance of the plants and in particular: the connection of new users, maintaining secondary stations, expansion and refurbishment of the medium and low voltage network, as well as the maintenance and upgrading of primary plants;

- in the "Gas distribution" sector (37 million euro), development and maintenance work on plants relating to: the connection of new users, the replacement of medium and low pressure piping and gas meters;
- in the "Integrated water cycle" sector (14 million euro), work carried out on the water transportation and distribution network and the sewerage networks:
- in the "Public lighting" sector (21 million euro), work carried out to replace lighting systems with LED equipment in the Municipality of Milan.

The capital expenditure incurred by the EPCG Group, amounting to 10 million euro, regarded development and maintenance work carried out on the electricity distribution network (3 million euro) and work carried out to replace traditional meters with remote control devices (7 million euro).

In the **Environment Sector**, capital expenditure for the period totalled 41 million euro and relate to maintenance and development work on waste treatment plants and landfills (14 million euro) and waste-to-energy plants (9 million euro) and the purchase of waste collection vehicles and containers (16 million euro).

In the Other Services and Corporate Sector capital expenditure for the year amounted to 12 million euro and was mainly aimed at investments in IT systems.

33% of investments were for environmental aspects such as: actions to reduce emissions, increase energy efficiency, development of renewable sources, innovation.

Figure 22 | Environmental investment (milions of euro)

Investments classification	Energy Sector	Heat Sector	Environment Sector	Networks Sector	Corporate	Total
Reducing emissions	6.9	17.2	4.2	-	-	28.3
Energy efficiency	6.0	10.2	4.9	20.7	20.7	41.8
Renewables	7.1	-	0.2	-	-	7-3
Innovation	10.6	-	12.3	-	-	23.0
TOTAL	30.6	27.4	21.6	20.7	20.7	100.4

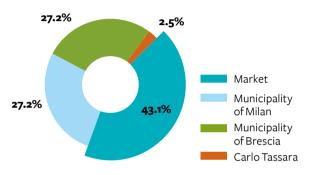
## 3.5 | Shareholders and Investors

### 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 and belongs to the FTSE-MIB segment and falls within the "Public Utilities - Electricity" sector. Under article 9 of the company's By-laws, 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.

The Company's main shareholders are the municipal administrations of the cities of Brescia and Milan, which each hold 27.2% of share capital1. The third largest shareholder is Carlo Tassara S.p.A. with 2.5%. The remaining 43.1% of capital is free floating. This percentage also includes the holdings of the Municipalities of Bergamo and Varese and the treasury shares (0.9% of the capital corresponding to 26,917,609 shares).

Figure 23 | A2A's shareholding structure
(at December 31, 2014)\*



<sup>\*</sup>Amounts above 2% - Source: CONSOB

**A2A** has about 102,000 shareholders, divided between institutional investors and retail investors.

Institutional investors hold approximately 20.4% of the share capital (19.8% in 2013). 31.0% of the free float in the hands of institutional investors is held by Italian investors, 17.5% by US investors, 16.7% by UK investors. There are also French (7.8%), Luxembourg (4.8%) and German (4.0%) institutional investors.

**Retail investors** total approximately 108,000 and together hold 19.3% of share capital (19.6% of 2013). 99.6% of the retail shareholding is resident in Italy and in particular, 54.8% in Lombardy. Investors residing in the provinces of Milan and Brescia hold 24.7% and 11.9%, respectively, of the total retail.2.

### 3.5.2 A2A in the stock market indices

Among the factors affecting share performance were those arising from macroa-economic and government policy trends, as well as capital flows on the international financial markets.

On the other hand, the company-specific factors include:

- the growth of the dividend distributed;
- continuation of the trend of reducing the amount and the cost of debt;
- limited reduction of quarterly industrial results, despite the particularly adverse effects of the energy scenario and the loss of certain incentives;
- the transition from dual to traditional governance with the appointment of a new management team;
- the announcement of the sale by the Municipalities of Brescia and Milan of a corporate share of 5%, in small part finalized in December 2014.

Strategies and policies for sustainability

Introduction

The A2A Group

## Economic responsibility

The Group's 2014 results Formation of value added Distribution of gross

global value added
Capital expenditure

### Shareholders and Investors

Annexes

Environmental responsibility

Social responsibility

Statement of compliance

Statement of the level of compliance with GRI guidelines

<sup>1</sup> In February 2015, the shareholding dropped, for both Municipalities, to 25% plus one share, as agreed in the shareholders' agreement of December 2013, which also envisaged that the excess portion shares be put on the market in the manner provided by law.

<sup>2</sup> The figures have been prepared on the basis of the shareholders' register updated as of the distribution of the dividend on June 26, 2013.

### **Economic responsibility**

Figure 24 | Performance of A2A stock during 2014



Figure 25 | Performance of the A2A stock with respect to FTSE MIB and EURO STOXX UTILITIES



The main indices in which the A2A stock is present are: FTSE MIB, STOXX Europe, EURO STOXX, WisdomTree and S&P Developed Ex-US.



Source: Bloomberg

### 3.5.3 | A2A in the sustainability ratings

Sustainability is applied more and more frequently also in finance and investors attentive to criteria of environmental, social and economic responsibility are identified with the phrase "Environmental, Social & Governance Investor".

Even the A2A Group is assessed and analyzed according to said criteria by analysts and investors and the stock is included in specific indexes, commonly called ethical indices or sustainability indexes, such as:

- ECPI Ethical Index EMU
- Axia Sustainable Index
- Solactive Climate Change Index
- FTSE ECPI Italia SRI Benchmark Index
- Standard Ethics Italian Index

Since May 2013, A2A has been included in the ETHIBEL EXCELLENCE Investments Register. A2A also participates in the annual assessments of the CDP (Carbon Disclosure Project) of Vigeo and ETICA SGR.

## 3.5.4 | Relations with shareholders and investors

A2A is constantly committed to providing answers as precise and exhaustive as possible to the needs and specific requests of financial stakeholders. To this end, different communication tools and channels are used:

- company documents (financial statements, interim reports, corporate presentations);
- documentation ad hoc (Investor Guidebook, documents of the Library for the investor);
- press releases;
- "Lettera2azionisti" newsletter (online and hard copy);
- meetings with analysts and investors.

For analysts and institutional investors (both Italian and international), special opportunities for interaction and updates are provided, including: road shows throughout Italy and the leading international financial centres, one-on-one meetings, group meetings, conference calls, and presentations when particularly important events for the Group occur (e.g. business plans, extraordinary transactions, etc.). In 2014, various events were organized in collaboration with Borsa Italiana and certain brokers who follow the stock geared towards Italian and international investors.

As for the coverage of the analysts, at the end of 2014, A2A was followed by 12 different financial companies. In order to monitor the opinion of analysts and institutional investors about the company and the most important issues related to it, A2A regularly commissions **Perception Studies**, mainly as a result of important strategic or managerial developments.

Considerable importance has been placed on **Internet communication** (web sites and e-mail), which allows the company to provide a comprehensive financial overview in a timely way and in accordance with legal requirements and Consob guidelines. In 2014, the Investor Relations section of the website has been expanded: a new subsection was created called "**Library for the investor**" in which specific studies are published regarding the markets in which the Group operates. The content of **the investor Guidebook**, addressed to investors and analysts in order to offer a comprehensive overview of A2A through the use of the main public information available, was also enriched.

The section also includes a data book with historical economic-financial data in Excel format (reported both annual and quarterly) starting from 2008. It is also possible to sign up for an online press alert service to receive new price-sensitive press releases in real time.

The Internet is also an effective **communication channel for retail investors**. The answers to frequently asked questions (FAQ) are posted on A2A's website to instantly and comprehensively respond to the main requests received. The Investor relations unit also provides timely responses to specific questions raised by small investors (especially by e-mail).

(a)

For further information refer to Investors section of the website **www.a2a.eu** 

Introduction

The A2A Group

Strategies and policies for sustainability

## Economic responsibility

The Group's 2014 results Formation of value added Distribution of gross

global value added

Capital expenditure

### Shareholders and Investors

Annexes

Environmental responsibility

Social responsibility

Statement of compliance

Statement of the level of compliance with GRI guidelines

### "Letterazazionisti": the world of A2A in a newsletter

Designedforsmallshareholdersandinvestors, the newsletter "Letterazazionisti" is addressed to all those who want more in-depth information on the initiatives. objectives, strategies and results of the A2A Group. The newsletter is available online and in hard copy and receiving it is simple: access the website of A2A and register through the appropriate banner on the home page. Now in its third year, it has a frequency related to the company's financial calendar. In 2014, three issues were published, which have illustrated the economic and financial issues of the Group and the market performance of the stock, the main corporate events, including the reform of governance, and issues related to environmental, economic and social responsibility.

Great attention is paid to the territories in which A2A is mostly established, presenting projects and achievements, development plans, investments in technology and plants, innovations and trade agreements.

The newsletter also includes scenario articles, from issues related to the national electricity system to the government measures on waste, in addition to in-depth information dedicated to small shareholders with the section"The corner of the investor."



## 3.6 | Annexes

### Figure 26 | Gross operating income by sector

(millions of euro)	2012	2013	2014
Energy	541	533	463
Heat & Services	73	86	61
Environment	219	282	222
Networks	242	256	298
Other Services and Corporate	-7	-24	-20
TOTAL	1,068	1,133	1,024

### Figure 27 | Balance Sheet

(millions of euro)	2012	2013	2014
Net fixed capital	6,969	6,481	6,194
Working capital	823	741	348
Assets and liabilities held for sale	277	0	0
Net capital employed	8,069	7,222	6,542
Equity	3,697	3,348	3,179
Group share	2,846	2,791	2,579
Minority share	851	557	600
Net financial position	(4,372)	(3,874)	(3,363)
Total sources	8,069	7,222	6,542
Debt gross financial	5,074	4,444	4,124

### Figure 28 | Key financial ratios

	I	ı	
	2012	2013	2014
Revenue per permanent employee (millions of euro)	0.51	0.44	0.41
Gross operating income per permanent employee (millionis of euro)	0.08	0.09	0.08
Average number of permanent employees	12,771	12,626	12,212

Figure 29 | CAPEX (capital expenditure)

(millions of euro)	2012	2013	2014
Energy	103	76	61
Heat & Services	49	43	69
Networks	123	109	124
Environment	48	41	41
Services	30	11	12
TOTAL	353	280	307

### Figure 30 | Equity Indicators

	1	1	
	2012	2013	2014
Earnings per share (EPS) (euro)	0.083	0.020	(0.012)
<b>Dividend per share</b> (DPS) (euro)	0.026	0.033	0.0363*
Dividend Yield (DPS/P)**	5.2%	5.2%	4.3%
Number of shares (millions)	3,133	3,133	3,133

<sup>\*</sup> Dividend proposed by the Board of Directors.

Figure 31 | A2A on the Stock Exchange in 2014

Average capitalization (millions of euro)	2,639
Capitalization at 31.12.2014 (millions of euro)	2,624
Average volumes	15,847,798
Average share price (euro per share)	0.842
Maximum share price (euro per share) 1.029	
Minimum share price (euro per share)	0.701

Source: Bloomberg.

Figure 32 | Debt Rating

Agency		31.12.2014
	Rating M/L Termine	BBB
Standard & Poor's	Rating Breve Termine	A-2
	Outlook	Negative
Moody's	Rating M/L Termine	Вааз
	Outlook	Stable

Introduction

The A2A Group

Strategies and policies for sustainability

## Economic responsibility

The Group's 2014 results
Formation
of value added
Distribution of gross
global value added
Capital expenditure

Shareholders and Investors

#### Annexes

Environmental responsibility

Social responsibility

Statement of compliance

Statement of the level of compliance with GRI guidelines

<sup>\*\*</sup> Calculated based on average share price.

# 4 Environmental responsibility territory Nature in A2A plants clean energy ethical management safeguarding efficiency energy environment Villaggio Violino (Brescia)



4	Environmental responsibility	58
4.1	Responsible management of the environment	60
	4.1.1 Environmental management system	63
	4.1.2 Use of resources and renewable sources	66
	4.1.3 Efficient use of water resources	68
	4.1.4 Safeguarding of biodiversity, habitats and the landscape	72
	4.1.5 Atmospheric emissions	75
	4.1.6 Management of waste and waste water	79
	4.1.7 Other impacts of the business	80
	4.1.8 Research and innovation for the environment	81
4.2	Responsible Management of the Energy Sector	84
	4.2.1 Energy production	85
	4.2.2 Management of emissions	87
4.3	Responsible Management of the Heat Sector	90
	4.3.1 Production and distribution of thermal energy	91
4.4	. Responsible Management of the Environment Sector	94
	4.4.1 Integrated waste cycle	95
	4.4.2 Management of emissions	101
4.5	Responsible management of the Integrated	
	Water Service	104
	4.5.1 Integrated water service	105
	4.5.2 Management of environmental aspects	106
4.6	Environmental figures	109
	4.6.1 Activity data	109
	4.6.2 Resources	114
	4.6.3 Air and climate	118
	4.6.4 Biodiversity	125
	4.6.5 Discharges and emissions into water	125
	4.6.6 Waste produced by the Group	126

# Identity Card At December 31, 2014

## 4.1 | Responsible management of the environment



52.9% the share of electricity from renewable sources

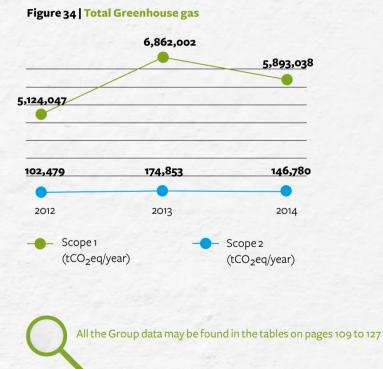


Decreased by 15% compared to 2013, the average emission factor of CO<sub>2</sub> of the Group



A2A and A2A Ambiente active in the market for LECs certificates

Figure 33 | Electricity produced by type of source 4.7% 10.6% 17.5% 52.9% 14.3% Renewable sources Natural gas (hydro, renewable Petroleum products fraction of waste. biogas, solar) Non-renewable fraction of waste Nuclear Coal



### Material issues for "Environment" stakeholders

## ISSUE 3 - USE OF RESOURCES AND RENEWABLE SOURCES

For A2A the issue of **saving resources**, especially energy, is the focus of the Group's policy for an environmentally friendly energy cycle.

In compliance with applicable regulations at national and international level, the Group contributes to increasing the use of renewable energy sources for the production of electricity and heat, thanks to a very diverse mix of sources including: water resources, biomass, landfill gas, geothermal and PV.

## ISSUE 4 - EFFICIENT USE OF WATER RESOURCES

All facilities, plants and activities of any kind or size of the A2A Group require **the use of water resources**. The A2A Group, aware of the value of this natural resource, is constantly striving to reduce consumption by introducing technological innovations in its use, whether it is withdrawn from the aqueduct or well or from surface water bodies. Most of the water withdrawn is returned to the environment, without changes to its physical-chemical characteristics.

# ISSUE 5 - SAFEGUARDING OF BIODIVERSITY, HABITATS AND THE LANDSCAPE

The A2A Group promotes the **safeguarding of biodiversity and the landscape** through active cooperation with organizations, Institutions and local landscape protection associations. In this view, it acts so that its activities and plants, some of which are adjacent to protected areas, are compatible with the vulnerability of the environment. Environmental restrictions, if any, are perceived not as a limit or imposition, but rather as a positive element for maintaining the natural balance of the local area.

### **ISSUE 6 - ATMOSPHERIC EMISSIONS**

The activities of A2A Group generate emissions into the atmosphere both directly (for example during energy production) and indirectly (through energy consumption at plants and offices, the use of materials and consumable goods, and the management of plants owned by third parties).

The path chosen to **limit and reduce atmospheric pollution** includes: the installation of plants for emission reduction and continuous monitoring systems, the use of fuels with low sulfur content, the replacement of ozone depleting substances with substances with less impact, monitoring of micro pollutants emitted.

Great attention is paid to the control and reduction of CO2 emissions with particular reference to the plants subject to specific legislation on Emission Trading (ETS) and the increase of that avoided thanks to production from renewable sources.

Strategies and policies for sustainability

Introduction

The A2A Group

Economic responsibility

## Environmental responsibility Responsible management

Responsible management of the environment

Responsible management of the Energy Sector Responsible management of the Heat Sector

Responsible management of the Environment Sector

Responsible management of the Integrated Water Service

Environmental figures

Social responsibility

Statement of compliance

Statement of the level of compliance with GRI guidelines



### Quality, environment, safety

the 3 key points underlying the sustainable approach of A2A



### **ISSUE 7 - WASTE MANAGEMENT**

In the A2A Group, waste management it is carried out in accordance with the principles of precaution, prevention and sustainability.

To this end, the Group's activities, in particular those relating to integrated waste management, are conducted according to criteria of effectiveness, efficiency, economy, transparency, technical and economic feasibility, and in compliance with rules in force on participation and access to environmental information. The responsible use of this "resource", allows the recovery of materials, energy recovery and containment of final disposal.

### **ISSUE 7 - WASTE WATER MANAGEMENT**

The protection of water and the soil and subsoil, is an essential goal of the activities of the A2A Group: it is not only a legal obligation, but an integral part of the environmental management system of the Group. Therefore, all actions taken ensure the prevention of pollution of surface and underground water bodies and, the treatment of waste water, in compliance with regulatory requirements and applicable authorization.

### **ISSUE 8 - RESPONSIBLE MANAGEMENT OF THE BUSINESS SECTORS**

Allthecompanies of the A2A Group manage environmental aspects from a perspective of **constant improvement** of performance, using environmental management systems certified in accordance with European and internationally recognized standards, such as ISO 14001 and the EMAS regulation.

Group-wide operational management of the environment is based on principles of prevention, protection, information and participation, applied in every activity and in relation to the environmental aspects identified for which the Company estimates the impact. The improvement of processes, technologies and working methods, is a constant objective, pursued thanks to the contribution made by research and development activities, innovation and the sharing of experience and good practice.

### 4.1.1 | Environmental management system

The A2A Quality, Environment and Safety Policy published in 2013, is at the heart of the Group's approach to sustainability, and represents a reference model for all employees and collaborators, in the conduct of activities for energy production and the provision of services.

The main environmental objectives and strategies recalled in the Policy are:

- the containment of atmospheric and acoustic emissions and soil pollution;
- the improvement of processes, technologies and working methods, thanks to the contribution made by research and development activities, innovation and the sharing of experience and good practice;
- the efficient use of resources, optimizing the use of natural and energy resources and protecting biodiversity;
- the recovery and recycling of waste;
- compliance with regulatory requirements concerning the environment.

A2A adopts and implements strategies for the prevention and management of environmental risks In order to ensure compliance with constantly evolving legislative requirements and minimize the risk of accidents or occurrences of non-compliance.

As early as 2013 and continuing in 2014, the A2A Group has adopted an organizational model consisting of procedural and computerized tools consistent with the new approach of the UNI EN ISO 14001, to support the identification of roles and responsibilities for Environment, Health and Safety issues in a clear and transparent manner, for efficient and effective corporate

risk management. One of the basic requirements for risk management of Environment, Health and Safety issues is **the knowledge of the regulations applicable to the company activities**.

2014 was a year of major changes in environmental legislation, both national and EU. The most significant and impactful for the activities of the Group are:

- changes to "Consolidated Environment Law" with Legislative Decree 46/2014 transposing EU Directive 2010/75 on Industrial Emissions, which have significantly reorganized the authorization aspects of industrial installations subject to Integrated Environmental Authorization (IEA). In the A2A Group, there are many installations subject to IEA, hence it was decided to activate a technical work group (composed of representatives of the Group companies operating in different sectors), which could evaluate and subsequently manage the impact of said additions on the Group;
- Ministerial Decree 120/2014, which redefined the organization of the National Register of Environmental Managers, the technical and financial requirements of companies and technical managers and the terms and conditions for registration;
- Legislative Decree 102/2014 on energy efficiency, which included obligations of energy audits for large companies and other important additions for distributors and sellers of electricity.

In addition, some regulations have updated aspects of **waste management** (and others):

• Decree Law 91/2014 "Competitiveness" has affected several areas, such as waste classification, the Sistri,

management of harmful ozone gas, civil thermal plants, verification of whether subject to EIA and EU regulations, in force from June 2015, such as the EU Regulation 1357/2014 which aligned the terminology of the classification of the so-called "Waste Directive" (2008/98/EC) to that used by the CLP Regulation;

- EU Decision 955/2014 updated the Decision 2000/532/ EC (European Waste List), fully replacing the Annex, to align the content to the provisions of Regulation 1272/2008 (CLP);
- Decree Law "Unblock Italy" (converted into Law 164/2014) covered several topics and areas of interest such as: integrated water service, green procurement, earth and rock excavation, incineration plants.

The A2A Group has analyzed and redefined the process of management of regulatory oversight on the issues of health, safety and the environment by defining the minimum requirements under the guidelines "Regulatory Observatory Environment, Health and Safety", which defines the procedures and responsibilities related to the identification, recording, analysis and dissemination of the legislation applicable to the activities, products and services performed. In addition, the Group has obtained a more adequate software for the management of these issues and to ensure a timely and widespread flow of information and, therefore, constant updates on regulatory evolutions of all relevant company functions.

Currently, the environmental management system **UNI EN ISO 14001** is adopted by 17 companies, for a total of 23 certificates issued. In 2014, this certification has also been obtained by the bio-drying plant of the company Bioase.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

## Environmental responsibility Responsible management

of the environment
Responsible management

of the Energy Sector Responsible management of the Heat Sector

Responsible management of the Environment Sector Responsible management of the Integrated

Water Service Environmental figures

Social responsibility

Statement of compliance

Statement of the level of compliance with GRI guidelines

### Environmental responsibility

With regard to EMAS registration at December 31, 2014, 24 sites are certified, thanks to the recognition obtained by the companies Abruzzoenergia, A2A Ambiente (for the Acerra site). Aprica and Amsa.

The adoption of management systems conform to national and/or international standards is considered competitive element beyond the aforementioned UNIEN ISO 14001 standards of the EMAS Regulation. To confirm this, the following certifications were achieved:

- A2A Ambiente obtained in June 2014, for the glass treatment plant located in the Municipality of Asti, attestation of conformity with EU Regulation 1179/2012 which governs the criteria for determining "in which cases the glass waste intended for the manufacturing industry of glass through a recovery operation cease to be considered waste, comply with legislation and regulations applicable to products and do not lead to negative general impacts on the environmental or human health"; only in the presence of this certificate is it possible to start the recovery of glass waste treated;
- A2A Calore & Servizi achieved in December 2014. the Fgas Certification, pursuant to Presidential Decree no. 43 of January 27, 2012 and EU Regulation no. 303/2008; this certificate is valid for services of installation, maintenance and repair of stationary refrigeration, air conditioning and heat pump equipment containing fluorinated gases; the company is registered in the national electronic register of the Ministry and includes 8 operators licensed to perform the management of such equipment.

The environmental management systems also oversee the management of "non-conformities and/ or disputes". In this regard, at the end of 2014, 15 procedures were under way or completed, some of which related to miscellaneous complaints of IEA issued to Group companies, other alleged irregularities in waste management and alleged non-compliance with other requirements of the law or regulations.

### **Management of environmental** emergencies

To properly govern the management of environmental emergencies, the Group companies have developed and adopted procedures and plans for Emergency Management.

A2A has taken out specific Insurance against any damage that may arise from accidental pollution connected with the ownership and/or management of plants, providing for both third party liability and the recovery of any costs incurred for decontamination inside and outside the plants.

In the course of 2014, two Guidelines were issued to oversee the actions resulting from the occurrence of emergency situations:

1. "Management leading of events contamination. contaminated sites situations of historical contamination" concerns the correct management of events that can potentially contaminate the soil, the subsoil or groundwater, as well as historical contamination that may still present a risk of aggravation of the situation of contamination;

2. "Communication and investigation incidental events" defines how to manage the detection, reporting and investigation of accidents possibly occurred. The investigation of incidental events is a key tool for monitoring and identification of areas for improvement of the system of supervision of environment, health and safety risks. Any incidental event should be investigated to identify factors related to the working activity that generated it, and the appropriate corrective and preventive actions to avoid, or at least decrease the likelihood that the event itself may be repeated in the future.

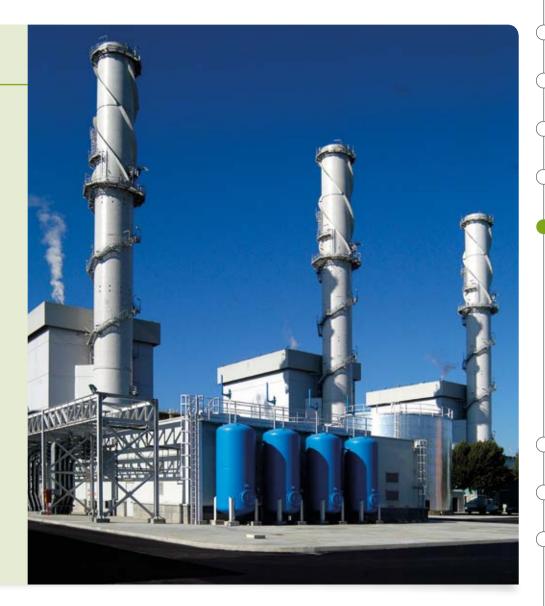
## New environmental policy and integrated system in Edipower

In 2014, a new Policy was issued for the Quality, Environment and Safety of Edipower, which is the corporate document which sets out the guiding principles in the field of environmental protection and safety, together with the priority objectives and tools identified for completing them. In the updated version, dated October 2014, the Policy of Edipower is consistent with the similar document of the A2A Group.

During the year, the project was also launched for the certification of an Integrated Management System for Quality, Environment and Safety (according to the UNI EN ISO 9001:2008, UNI EN ISO 14001:20144 and OHSAS 18001:2007 standards) of the organizational structures "Engineering" and "Development and Operational Parameters" of Edipower, which operate in support of the thermoelectric and hydroelectric plants throughout the Energy Sector. The adoption of the system will be completed with the required certification in 2015.

The definition of procedures that establish rules and procedures for managing both environmental and safety aspects allows effectively implementing the provisions of the organizational management model of the company.

In addition, as part of the integration process of A2A and Edipower, work continues to promote the coordination of the processes of the Energy Sector. In particular, common information systems are being implemented, aimed at the effective management of the plants, including the New company Operational Database (NBDO).



) Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

# Environmental responsibility Responsible management of the environment

Responsible management of the Energy Sector Responsible management of the Heat Sector Responsible management

of the Environment Sector Responsible management of the Integrated Water Service

Environmental figures

Social responsibility

Statement of compliance

Statement of the level of compliance with GRI guidelines

### Environmental responsibility

### 4.1.2 | Use of resources and renewable sources

The economic progress of a nation cannot ignore the power availability. Italian energy demand has grown a lot over time, albeit with some delays as a result of the economic crisis of recent years. The coverage was mainly guaranteed by petroleum products the use of which, however, has gradually decreased due to the increased use of natural gas.

Over the years, analyses were performed on the issue of "quality" of renewable sources, which has increased interest, especially of citizens, to the so-called "renewable sources" such as: wind, solar, geothermal, hydro, biomass, biogas, etc.

The EU countries are free to develop the energy sources of their choice, but must take into account European objectives regarding renewable sources, contained in the Climate-Energy Package (so-called "20-20-20 Package"). The energy and climate goals for 2020 of the European Union are to reduce by at least 20% greenhouse gas emissions compared to 1990 levels; achieve a contribution of 20% of energy from renewable sources on gross final consumption, including a 10% target for biofuels; 20% reduction in the consumption of primary energy compared with levels expected by the current scenario, to obtain through energy efficiency measures. Italy has implemented the European regulatory framework, with an outline of the goals which expects the following commitments for 2020:

• reduction of greenhouse gas emissions of 18% overall, broken down as follows: 21% for the sectors

ETS (Emission Trading System, in particular the generation of electricity) and 13% compared to 2005 in sectors not covered by the ETS system;

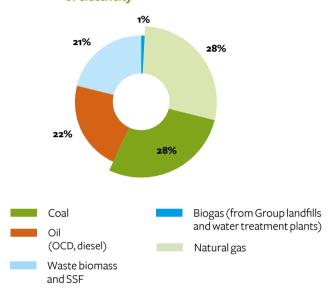
- production of 17% of energy from renewable sources, including a 10% target for biofuels:
- 20% reduction in primary energy consumption compared with projected levels in the current scenario.

The European Commission subsequently presented a new framework for EU policies on climate and energy for 2030. It is expected that emissions of greenhouse gases will be reduced by 40% compared to 1990 levels and the use of renewable energy will be increased to cover at least 27% of total consumption.

Within this context, the A2A Group contributes significantly to achieving the national and **European objectives** with its business of production and distribution of energy. In fact the Group, as well as for a strong diversification of energy sources, is characterized by a significant use of renewable **sources**, which allow reducing the use of fossil fuels and the constant dependence on them.

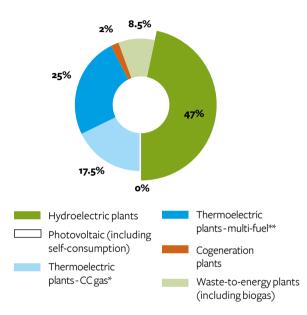
The chart below shows the breakdown (based on thermal content) of the fuels used by the A2A Group in 2014 for the production of electricity and heat. Compared to 2013, the contribution of waste, biomass and Secondary Solid Fuel (SSF) has increased from 18% to 21%.

Figure 35 | Type of fuel used for the production of electricity



With reference only to electricity production, hydroelectric and thermoelectric energy form the main part of the production of the A2A Group. In addition to the plants of the Energy Sector, the Group also has other plants that contribute to the production of electricity: WTE and cogeneration plants. The chart on the next page shows the contribution of the different types of plants to the total production of electricity of the A2A Group in 2014.

Figure 36 | Electricity Production by type of plant



<sup>\*</sup> Combined-cycle natural gas high-performance

In 2014, the electricity produced by the Group's plants decreased by about 6%. In particular, the production of combined cycles (-40%) and cogeneration plants (-22%) has been greatly reduced due to the demands of the electricity market, while the production of hydro-electric plants (+19%) has greatly increased, mainly thanks to the contribution of the plants in Udine and Mese (Sondrio).

It should be noted that the data excludes the production of the WTE plant of Acerra, because this plant is not owned by A2A Ambiente and is therefore excluded from the scope considered by the Sustainability Report. Moreover, in 2014, the **yield** from natural gas combined cycle plants went down to 47% (compared with 49% in 2013) due to the type of use of these plants caused by the national electricity market, which forces it to function less efficiently. As a consequence of this, the total yield of A2A's thermoelectric park has also diminished to around 38% (40% in 2013). The average yield of cogeneration plants fired by fossil fuels increased slightly compared to the previous year, amounting to 81%.

A significant contribution to the production of electricity also comes from waste-to-energy of non-hazardous waste and the use of biogas generated from the biological degradation of waste at the landfills.

**Waste-to-energy** is carried out at 5 WTE plants of the Group with feed-in of 1,038 GWh of electricity, equal to 0.3% of national demand. The collection and use of **biogas** from landfills controlled by the Group enable the production of additional 56.8 GWh of electricity.

Also, the ITS (Intelligent Transfer Stations) plants of Villafalletto (Cuneo) and Corteolona (Pavia) produce Secondary Solid Fuel (SSF) through the process of biodrying and refining from municipal waste and assimilated. The SSF produced in Villafalletto is sent to a cement plant as fuel to power the furnace, while SSF product in Corteolona is used at the adjacent WTE plant, with related production of electricity also for self-consumption for the site.

Hydroelectric production of A2A in 2014 amounted to 6,066 GWh. Aggregating contributions from other sources such as biogas, renewable fraction of waste, geothermal and photovoltaic to this data, the proportion of electricity from renewable sources produced by the Group reached 52.9% in 2014. The national figure for electricity from renewable sources in 2012, last figure available, amounted to 27.5% (Source: GSE "Statistical Report 2012 - renewable energy plants").

### 6,066 GWh

hydroelectric energy production of A2A in 2014



Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

## Environmental responsibility Responsible manageme

Responsible management of the environment

Responsible management of the Energy Sector Responsible management of the Heat Sector Responsible management

of the Environment Sector Responsible management of the Integrated Water Service

Environmental figures

Social responsibility

Statement of compliance

) Statement of the level of compliance with GRI guidelines

<sup>\*\*</sup> Multi-fuel plant

## Environmental responsibility



### A2A and A2A Ambiente, operators active in the UK market of LECs

In order to enhance the renewables portfolio of the Group, in 2014 A2A and A2A Ambiente became active players in the UK market of LECs (Levy Exemption Certificates). The LECs, similar to Italian Green Certificates are issued by the Ofgem - Office of Gas and Electricity Markets (the English Authority for Electricity and Gas) for the renewable production of some types of plants previously accredited. Certificates are used by sellers of electricity in the United Kingdom to establish the origin of renewable sources of electricity sold to end customers and their contribution to the environment, for the exemption from the payment of the tax on fossil energy (Climate Change Levy).

A2A and A2A Ambiente have registered with the Renewables and CHP Register of Ofgem and began the complex qualification process of certain hydroelectric and WTE plants of the Group.

Silla2 was the first Italian waste-to-energy plant to be accredited by Ofgem in the UK Climate Change Act and, from 2015, may obtain LECs for its renewable energy production, which will be recognized in the UK. Soon, also some hydroelectric plants of A2A will be accredited by Ofgem and will receive the LECs for their renewable energy production.

With regard to achieving the objective, both national and EU, of reduction of primary energy demand, the A2A Group contributes with initiatives in energy efficiency described in the sections dedicated to the different sectors of activity.

### 4.1.3 Efficient use of water resources

For the A2A Group water is a fundamental "resource" for the conduct of its business, as it is used for the production of electricity and heat, for waste management services, and distributed to citizens.

All the Group's factories, plants and activities use water resources for industrial purposes, thus the constant effort to achieve improvements in its use and attention to reduce consumption, with respect to all sources of supply: from aqueducts to wells, up to the surface water (rivers and seas).



### The environmental impact of the purchase of fuels

The supply chain is of considerable importance to the activities of the A2A Group; in particular, with regard to environmental impacts, the purchase of fuel for power generation and transport fuels used in business activities in the territory play a significant role.

For 2014, the water 1 and the carbon 2 footprint of the fuels used by the Group were determined. The amount of water consumed during the phases of extraction and refining of fuels was calculated, whose value amounts to 23,381,000 cubic meters. Emissions of related CO<sub>2</sub> instead amounted to 730,760 tons.

- 1 Source: www.waterfootprint.org Water footprint refers to the value of fresh water used to produce goods and services.
- 2 Source: www.gov.uk/government/organisations/department-for environment-food-rural-affairs Carbon footprint refers to the total amount of greenhouse gases emitted directly or indirectly by the company to produce goods and services.

Figure 37 | Use of water resources in the A2A Group

Activity	Water uses
Hydroelectric production	Water is used because of mechanical energy owned, which is converted into electricity through turbines and alternators. Water extracted is fully returned, without undergoing qualitative changes. The hydrographic basins most involved are those of the rivers Adda and Spoel in the Upper Valtellina and the river Liro in Valchiavenna, that of the river Tagliamento in Friuli Venezia Giulia, and those of the rivers Neto, Simeri, Ancinale and Savuto in Calabria.
Thermoelectric production	The water is needed for the production of steam, for cooling purposes in the thermal cycle, for limiting the dispersion of dust and for irrigation of green areas.  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. The surface water bodies affected by abstraction are: the Valentinis canal (Monfalcone thermoelectric plant, Gorizia), the Muzza canal (Cassano d'Adda thermoelectric plant, Milan), the river Mincio (Ponte sul Mincio thermoelectric plant, Mantua), the Cavour canal and river Po (Chivasso thermoelectric plant, Turin), river Po (Piacenza thermoelectric plant, Sermide thermoelectric plant, Mantua), the Adriatic sea (Brindisi thermoelectric plant), the Tyrrhenian sea (San Filippo del Mela thermoelectric plant, Messina).  The consumption of drinking water taken from water supply is usually reduced and limited to hygienic - sanitary uses.
District heating	Water consumption is mainly due to refilling the water in the network, for which drinking water from the public supply is generally used. Some of the A2A Group's plants use groundwater heat pumps to produce energy, with water extracted from wells located close to the plants.
Cogeneration production	Water is used mainly for the reintegration of the circuits of steam production. The quantities needed are taken from aqueducts and wells.
Electricity distribution	In certain plants water is needed for cooling the transformers and comes partly from the public water supply.
Waste-to-energy plant	In WTE plants much of the water consumption is used for purely industrial purposes, such as: reintegration of the cooling towers of the thermal cycle, steam generation, plant washing, cooling of waste and irrigation of green areas. The supply is via dedicated pumping wells realized within the sites. The consumption of drinking water taken from water supply is usually reduced and limited to sanitary uses.
Biogas production and landfills	For landfills and biogas plants, there are two types of consumption: water from wells for domestic and technological uses and to power the fire protection network and irrigation of green areas; consumption of drinking water of the network for sanitary use.
Waste collection, hygiene urban and treatment plants	Water is used for cleaning roads and means, as well as for washing sweeping lands (waste washing plants).
Purification	In addition to being intended for human consumption, and thus treated so it is qualitatively suitable, water is used for washing and regeneration of water treatment plants.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

## Environmental responsibility Responsible management

Responsible management of the environment

Responsible management of the Energy Sector Responsible management of the Heat Sector

Responsible management of the Environment Sector Responsible management of the Integrated Water Service

Environmental figures

Social responsibility

Statement of compliance

Statement of the level of compliance with GRI guidelines

## Environmental responsibility

### Rainwater recovery and reuse



An example of limiting the consumption of water from the aqueduct is the fire protection tank predominantly fed by water from secondary rainfall, present in the plants of A2A Ambiente located in the city of Bergamo, which constitutes the water reserve of 200 cubic meters mandatory for fire fighting.

In 2014, a new initiative was implemented to contain the use of water resources in the active inertization plant at the site of Giussago-Lacchiarella, through the recovery and reuse of rainwater collected to be used for humidification of the dusts for inertization. The monitored data showed the achievement of the objective: 694 cubic meters of rainwater used in the inertization process and no consumption of water drawn from the well.

In recent years, at the thermoelectric plants, systems have been developed for the reduction of the withdrawal of water from external sources, privileging internal recycling and reuse. In particular:

• the innovative system **Zero Liquid Discharge** (ZLD), that combines the recovery of process water with waste water treatment through a crystallization system powered by steam that, causing it to evaporate, retrieves it and then returns it to the collection tank for subsequent treatment and recovery. The saline residue from this process is filtered and sent for disposal as waste. This system represents a significant example of the recycling of a valuable resource like water avoiding the intake of water from natural water bodies. This system has been implemented at the thermoelectric plant in Gissi (Chieti), at the plant in Monfalcone (Gorizia), while at the plant in Brindisi recovery occurs through

- direct use in the plant, without crystallization;
- for water supply used for the production of industrial water at the thermoelectric plant in Gissi (Chieti) water is used from the consortium purification plant and the water recovery system at this plant allows minimizing supply. At the same plant, a system of air cooling was adopted that eliminated the corresponding use of water;
- At the Edipower thermoelectric plant in Chivasso (Turin), measures are operational for the optimization of the reverse osmosis system. This made it possible already in 2013 to recover around 70% of the effluent discharged, and also reduced the amount of well water abstracted for industrial use.
- at the Edipower plant in San Filippo del Mela (Messina), a new treatment plant became operational for the recovery of oily waste water treated and for the production of industrial water through **seawater** desalination. Thanks to said plants, already in 2013 the extraction of water from deep ground water for industrial uses was eliminated, leaving active only the extraction needed to operate the plants realized with the decontamination of soil and surface water.

Further measures are described in the following sections, dedicated to the different sectors of activity.



### Water resources, waste-to-energy and district heating

At the Waste-to-energy plant in Brescia, during the heating season from October to April, water is used in the district heating network for cooling the thermal cycle. The increased consumption of water instead concern the operation of the cooling towers from April 15 to October 15, when limited heat consumption of the district heating network is no longer sufficient for cooling the thermal cycle. The water treatment system of the cooling towers has been optimized to reduce both consumption and waste water. All process water and water from the drainages of the processing areas of the plant are collected and reused in the shutdown system and evacuation of waste. In addition, the waste-to-energy plant has a system for treating dry

flue gas and a system for waste water collection designed for maximum reuse of process water, so as to reduce consumption and limit waste water that is not reusable. About 80% of the water used in the site, drawn from wells, is sent to the cooling towers. 78% evaporates into the atmosphere and the remaining 22% is discharge water of the towers which is discharged into the sewer system. All other waste and rain water collected in the plants is reused in the shutdown system and waste evacuation.

At the **Sillaz waste-to-energy plant** in Milan water for industrial use comes from authorized industrial wells located in the area of the plant, while drinking water from the aqueduct is used mainly for

hygienic-sanitary uses. The cooling system of the thermal cycle, which normally requires a capacity of approximately 9,800 m3/h, is able to recirculate morethan 98% of water, with a substantial reduction in water consumption. Moreover, the treatment of combustion flue gas is dry and, therefore, water discharges are mainly made from the discharge water of cooling towers (approximately 750,000 cubic meters per year) which, by dechlorination, are entered in the Parea cable via which they reach the park "Boscoincittà". The other process water produced, from the drains of the processing areas of the plant, are all collected and subjected to a treatment of oil removal, and then reused in the shutdown system and waste evacuation.

## **(**\$)

### Efficient use of water resources in the aqueduct service of Aspem

The attention of Aspemtowards efficient use of water resources is reflected in the control of water quality from catchment until transport to the aqueduct and also the optimization of its use via actions aimed at streamlining and savings, both in the phase of supply and distribution.

To optimize the use of water resources in terms

of extraction and sources involved activities mainly focus on efficient management of lifting and dispersion. In the first case, the best available techniques are used for the design, execution and maintenance of the plants, as well as remote management systems to acquire detailed information on trends in water extraction and

requests, in order to optimize the operation of the system. In the second case, to reduce losses of supply and distribution networks an annual analysis is carried out of the efficiency level of the water system, by comparing the volumes of water taken from the supply sources and water delivered to the users, as well as a systematic search of network losses.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Responsible management of the environment

Responsible management of the Energy Sector

of the Heat Sector

Responsible management
of the Environment Sector

Responsible management
of the Integrated

Water Service

Environmental figures

Responsible management

\_\_\_\_\_\_\_

Statement of compliance

responsibility

Social

Statement of the level of compliance with GRI guidelines



#### **Bergamo plants Area and the Flies Observatory**

The territory, in which the plants Area of Bergamo of A2A Ambiente is located, is also monitored by the Flies **Observatory**, composed of representatives of the PA of the area. ASL local health authorities, the Province and coordinated by the Museum of Natural Sciences in Bergamo. The purpose of the Observatory is to maintain an active control on the presence of flies and the management of activities in the area that can affect it. The Bergamo plants Area periodically reports to the Observatory the results of monitoring carried out inhouse and acquires from the same any complaints attributable to activities performed at the site. In the Area, a protocol has been in force for years for preventing and controlling the phenomenon of the proliferation of muscina, with progressive levels of intervention related to the level of presence of the flies. In recent years, the presence of flies, detected through the pads of sticky traps outside and inside the plants area, and through catching inside the plant, was lower than in all other periods monitored so far.

With the coordination of the Museum of Natural Science, the possibility is being verified of using the site for the experimentation of nature initiatives aimed at encouraging the establishment of animal species potentially able to counteract the presence of insects.

#### 4.1.4 Safeguarding of biodiversity, habitats and the landscape

The A2A Group operates in harmony with regional, natural and cultural features, and is aware of our contribution to defining the identity and wealth of the environment. The safeguarding of biodiversity is based on the maintenance of terrestrial ecosystems and their suitability for the development of human life and animal and plant species.

The European Directive "Habitat" of 1992 proposes the maintenance of biodiversity, while also considering the economic, social, cultural and regional needs. To this end, the European Union has identified natural habitats "of EU interest" (terrestrial or aquatic areas distinguished by their geographical, abiotic and biotic features, entirely natural or semi-natural), namely European habitats at risk of disappearing or that have an area of limited natural allocation. A European ecological network of special areas of conservation has thus been established, called Natura 2000. Italy is home to an extraordinary wealth of biodiversity: the number of plants and animals in our country is the highest in Europe and more than 10% of these species are found only in our territory. The system of natural protected areas now covers 22% of Italian Municipalities, 95% of the provinces and all of the regions.

In the parks in the vicinity of the plants of the A2A Group, there are over 40 animals species counted on the Red List of the International Union for Conservation of Nature (IUCN) and the Italian one. In particular, the birds include the presence of the Northern Harrier, the Gadwall, the Ferruginous Duck and the Black Tern, species at critical risk of extinction.

The Environment Sector of the A2A Group not only contributes to the safeguarding of biodiversity and the landscape, but also carries out improvement actions for the territory, with particular regard to the **management** of landfills. At all the Group's landfills, even those where the phase of waste conferment has been terminated, waterproofing, grassing and planting actions were carried out suitable for environmental recovery. This includes the prevention and containment systems present in all storage areas, whose proper management is controlled through an integrated management system of environmental quality and safety. Moreover, all these plants are equipped with monitoring wells to check for leakage of leachate and prevent pollution of the soil and subsoil, which could have an impact on surface and underground water.

At all abandoned landfills, works were carried out necessary for the safe management of post-closure, allowing on the surface the development of green areas, often with the presence of fauna that finds refuge.

The energy production plants generate an impact on the area in which they are located: the thermoelectric plants occupy very large areas and hydroelectric plants are widespread in the area and are typically found in environments of high nature value where, however, they are usually well integrated.

In 2014, Edipower undertook a project to monitor the **conservation of protected areas** in areas of operation. In the first phase an analysis was carried out of protected areas where the manufacturing plants are located. For each site, areas of high biodiversity value were mapped within a radius of 20 km, dividing them by Special Protection Areas (SPAs), Sites of Community Importance (SCIs), Important Bird Area (IBA), Official List of Protected Areas and Wetlands of International Importance. For each area identified the following were identified: code and name, surface, protection status, distance from the production unit, type of habitat, animal and plant species present. At a later stage, it is expected to define the qualitative-quantitative indicators designed to measure the impacts on biodiversity and enable effective management. An indicator already monitored in some realities of the Group is the ratio of total area of green space and relevance of the plants. Particularly significant, also in view of its location in the Regional Park, is the value recorded at the thermoelectric plant in Mincio (Mantua), for which this ratio is 68%.

Another important aspect, especially for hydroelectric plants, is the issue of **minimum vital flow** (MVF) to comply with EU, national and regional norms, for the protection of river habitats in the waterways affected by extraction for hydroelectric energy production; in fact, it is necessary to ensure a minimum flow of water in the river bed.

To minimize the environmental impact, for some years the A2A Group has been committed to issuing predetermined quantities of water from the main extraction. Also, there is particular care in the handling of the removal of sediments from the accumulation basins of water. An example is as occurred in 2014 for the Ambiesta Basin in Friuli Venezia Giulia.



#### **Ambiesta Basin: selective removal of the sediment**

The Ambiesta tank is a reservoir of daily regulation for the service of the hydroelectric plant in Somplago (Udine). It is powered partly by its modest catchment basin, while it significantly receives waters that come from the plant in Ampezzo and the catchment basin of the Middle Tagliamento. In the tank, the removal of a sediment accumulation was required to maintain the efficiency of the discharge and derivation parts. In mid-December 2014, removal activities were completed successfully. The works, which began in October, were performed using a floating platform equipped with suction pumps, controlled by a georeferenced system, which allowed operating with precision, calibrating leveling of the seabed on areas of actual interest.

This new work technique has allowed limiting the values of turbidity of Ambiesta

and Tagliamento, which remained well below the limits set by the authorization decree of the Region Friuli Venezia Giulia for the entire period of performance of the operations. In December 2014. Edipower signed with the Fishing Protection Authority of the Region a memorandum of understanding aimed at improving recovery of river beds concerned through long-term actions of restocking of fish. The Authority restocked the fish taken before the works and will carry out supplementary restocking of fine fish. Upon completion of activities under the decree, Edipower will perform in the first months of 2015 the monitoring of the ecological and **chemical-physical parameters** on waterways covered by the work.

## **(**\$\sqrt{)}

#### Redevelopment of the chimney stack of the thermoelectric plant in Mincio

The project involves the re-use for tourism and environmental purposes of the 150-meter chimney stack, no longer used, through the implementation of infrastructure useful to the use of the building for the observation of the area from above. The top of the chimney stack is an observation point overlooking a region characterized by a unique variety of landscapes: the Alps, foothills of the Alps from Brescia to Verona, Lake Garda, the Garda moraine hills, Mantua plain.

Characterized as "land-mark" visible also from the

southern end of Lake Garda, it is an ideal gateway to the Mincio Park, which extends south to Mantua. The Park Authority and the Municipality of Ponti sul Mincio, where the plant is located, have taken up the challenge of re-using of the building, now part of the landscape since the '8os, as occasion for attraction in its own territory. In addition to the infrastructure of lifts, tourist facilities (refreshments, bike rental, etc.) and cultural facilities (Museum of energy and landscape) will be built.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

# Environmental responsibility Responsible management

Responsible management of the environment
Responsible management

of the Energy Sector

Responsible management
of the Heat Sector

of the Environment Sector Responsible management of the Integrated Water Service

Responsible management

Environmental figures

Social responsibility

Statement of compliance



The A2A Group handles with particular sensitivity the insertion of its plants in the landscape mitigating the visual impact. For example, many elements of the plants of the hydroelectric unit in Mese (Sondrio) are not visible externally: some supply channels, load tanks and pressure pipes are, in fact, in the gallery. This careful design, created also for military reasons, today is positive from an environmental perspective. All plants are perfectly placed in the territory and have a strong cultural and industrial value.

Similar attention is paid in the thermoelectric area, as in the case of the thermoelectric plant in Mincio, in the province of Mantua, where a redevelopment project of the chimney stack was arranged.

The protection of biodiversity, habitats and landscape is also relevant in the design and installation of **distribution networks** of electricity, gas, water, heat for district heating and telecommunications networks. In the planning phase of the path of these infrastructures and in the design phase, aspects are evaluated related to the crossing or vicinity of areas of natural interest: green areas, local parks, flower beds, gardens or other pieces of land of particular value and natural value. The A2A Group plans and designs interventions within the constraints laid down in the national and local regulations, and the requirements of the relevant entities. In particular, attention is paid to the identification of the proper paths, trying to avoid or minimize interference or damage. In addition, in order to protect biodiversity, compensation actions are implemented and agreed with local authorities.

This aspect is also relevant for any changes that interventions interfering with surface water bodies may generate, which would affect the hydrological

characteristics or quality of water bodies, with impact on the related ecosystem.

In the case of carrying out excavations the risk of possible injury to the root system of the trees is also evaluated, keeping at a distance from the plants so as not to affect their integrity and stability.

#### **Bike path in Truccazzano**

In 2014, the agreement was updated concluded in 2007 with the Municipality of Truccazzano (Milan) redefining the compensatory works on the fraction of Albignano, near the thermoelectric plant of Cassano d'Adda, crossed by two power lines that connect the production facilities of the plant to the national transmission grid. At the beginning of 2014, the municipal administration was delivered the completion tract of the bicycle path along provincial road 104, which connects the towns of Cassano and Truccazzano. At the same time, an annual contribution of 10,000 euro was formalized with the Municipal Administration as financial support in the form of scholarships for students of Truccazzano. A2A is expected to realize the study for the realization of a variant to the system of transport of HV electrical energy concerning the crossing of the fraction of Albignano.

#### 4.1.5 Atmospheric emissions

Emissions of pollutants alter the chemical composition of the atmosphere and influence, therefore, the quality of the air we breathe. For this, the operation of plants that release emissions into the atmosphere is subject to specific regulatory requirements, aimed at maintaining the correct levels of air quality.

A2A Group's production plants are equipped with advanced flue gas treatment systems, making it possible to stay well within the authorized limits and, in most cases, achieve the emission performance levels identified by the European Commission for the Best Available Technologies. The main regulated substances, including those found in emissions from plants powered by fossil fuels, are: nitrogen oxides, carbon monoxide, sulphur oxides and dust. The levels of these emissions are kept under control in thermoelectric and waste-toenergy plants, recorded using continuous monitoring systems (SME - Sistema Monitoraggio Emissioni), and submitted regularly to the relevant authorities. The region of Lombardy has additionally established that the monitoring network for emissions from largescale plants (the SME network) in that region must be integrated with the existing air quality network to enable the ARPA (Regional Environmental Protection Agency) to have access to the instant data provided by the continuous emissions monitoring systems installed on the chimney stacks of the plants.

With regard to emissions from waste-to-energy plants, particular emphasis is placed on emissions of micropollutants, including dioxins, polychlorinated biphenyls, polycyclic aromatic hydrocarbons and metals. These substances are regularly monitored to ensure that legal limits are complied with. In plants of the A2A Group measured concentrations have always been well below these limits, or even below the instrumental limits of detection.

The aspect relating to atmospheric emissions is managed by the Group through:

- installations to reduce emissions:
- systems for continuous monitoring of macropollutants;
- use of fuels with low sulphur content;
- air quality monitoring, with direct/indirect management of control units;
- periodic monitoring of micro-pollutants emitted;
- quantification of CO<sub>2</sub> emissions, both direct and indirect;
- quantification of CO<sub>2</sub> emissions avoided through the production of renewable sources;
- replacement, in equipment, of greenhouse gases with less impactful substances;
- development of district heating networks.

Looking at emissions related to the activities of the A2A Group (refer to tables 72 to 96), there was a significant decrease in the quantity of nitrogen oxides emitted in 2014 (3,445 t of NO $_X$  against 5,472 t in 2013). This result derives mainly from the reduction of NO<sub>v</sub> emissions of the plant in Monfalcone (Gorizia), obtained with measures to improve combustion. To a lesser extent, the reduction of NO<sub>X</sub> emissions is also due to a general reduction of electricity production by the Group's plants. Also the emissions of sulphur oxides decreased (958 t of SO<sub>2</sub> in 2014 against 1,739 t in 2013), mainly due to the significant reduction of SO<sub>2</sub> emitted by the plant in San Filippo del Mela (Messina), where at the end of 2013 groups 3 and 4 have been closed which issued more emissions than the groups currently in operation. Even the reduced operations of coal plants in Monfalcone and Brescia (Lamarmora) contributed to the reduction of total emissions of SO<sub>2</sub>. Emissions of carbon monoxide (CO) have remained unchanged.

Emissions of micro pollutants were maintained at the levels of previous years. The oscillations in the absolute values of such emissions recorded over the years are highly influenced by the extremely low concentration levels, often close to the instrumental limits of detection, with which the substances are present in the flue gas emitted: different numbers are actually representative of a substantially unchanged emissivity level and, what is most important, that it is maintained at extremely low levels.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Responsible management of the environment

Responsible management of the Energy Sector Responsible management of the Heat Sector

Responsible management of the Environment Sector

Responsible management of the Integrated Water Service

Environmental figures

Social responsibility

Statement of compliance

Statement of the level of compliance with GRI guidelines



Daily emissions of the WTE plants and some thermoelectric plants of the company are available at **www.a2a.eu** in the Sustainability section

#### **Greenhouse gas emissions**

The atmospheric concentration of greenhouse gases (GHG) is considered the main factor that determines the global warming of our planet. Among the greenhouse gases considered in the Kyoto Protocol carbon dioxide (CO<sub>2</sub>) covers a major role in terms of emissivity. The reduction of CO<sub>2</sub> emissions is therefore the main strategy for climate change mitigation. The objective of reducing emissions can be achieved through the use of renewable resources, the use of fuels with low carbon content and increasing energy efficiency.

Many of the activities of A2A Group lead to the emission of carbon dioxide CO<sub>2</sub> into the atmosphere both directly (for example during energy production) and indirectly (through energy consumption at plants and offices, the use of materials and consumable goods, and the management of plants owned by third parties).

**Direct emissions** (classified as Scope 1) are primarily due to the supply chain for the production of electricity and heat and, secondarily, to methane leaked from the distribution network or not collected at landfill sites. The following table specifies details of emissions by source in 2014. Compared to the previous year, there was a 14% decrease, mainly due to lower production at thermoelectric plants. Emissions of CO<sub>2</sub> equivalents were more than halved, thanks to better management of equipment containing these gases.

Figure 38 | Total direct emissions (Scope 1) - tCO2 eq

<b>Energy production</b>	5,255,492
Methane loss from distribution networks (estimated)	534,160
<b>Methane loss from landfill sites</b> (estimated)	54,500
Motorvehicles	35,469
Fluorinated gases	5,590
Service and distribution networks	7,827
TOTAL	5,893,038

The Group's average CO<sub>2</sub> emission factor calculated by adding all emissions of energy production and relating them to the total energy production (electricity and heat), improved significantly amounting to 355 g/kWh, a decrease of 15% compared to 2013, equal to 417 g/kWh.

Even indirect emissions (Scope 2), due to the consumption of electricity, decreased in 2014 by about 16% due to lower plant operations and totalled 146,780 tons of  $CO_2$ .

Scope 3 emissions in 2014 are reported to be 1,457,729 tons. This value is approximately double compared to 2013 because it takes into account the emissions from plants managed for third parties (boilers for heating buildings, the WTE plant in Acerra and STIR in Caivano) and also the greenhouse gas emissions produced during refining and extraction of the fuels used by the Group, not calculated in 2013. (Refer to box on page 68).

Also in 2014, A2A participated again in the questionnaire prepared by the Carbon Disclosure Project, a notfor-profit organization that collects climate change data around the world, by publishing independently audited data on its carbon balance.

The use of renewable resources, such as hydroelectric and biodegradable waste, as well as the use of CHP and advanced technologies, allows saving both in terms of carbon dioxide emissions and in terms of fuel compared to conventional processes.

To properly assess the emission savings of CO<sub>2</sub> achieved by its activities, the A2A Group uses a methodology for calculating the avoided emissions of CO2 and energy savings applicable to all plant and energy processes. This method was developed in 2010 and is updated each year using the reference parameters and emission factors published by Terna or ISPRA for national Italian generating capacity. The data is summarized in the following table:

Figure 39 | Avoided emissions of CO2 and energy savings in energy processes

	2012	2013	2014
$\mathbf{CO_2}$ avoided $(t)$	1,374,116	3,080,648	2,886,224
Energy saved (tep)	867,211	1,327,551	1,136,536

The decline in the amount of CO<sub>2</sub> avoided in 2014 is due to lower production of combined cycle high-performance plants linked to the performance of the electricity market. However, the absolute data of CO2 avoided and energy saved highlight the Group's commitment to the reduction of climate change.

## Fluorinated gases in air conditioning and refrigeration equipment

In compliance with European and Italian law, A2A controls air conditioning and refrigeration equipment in the offices and plants and the heat pumps, in order to minimize the risk of loss of ozone depleting substances and greenhouse gases. To better manage the activities of installation and maintenance of equipment containing fluorinated greenhouse gases and ozone depleting substances, A2A issued a specific Guideline.

A2A has also chosen to implement a program of replacement of equipment containing R22 gas (ozone depleting) with equipment containing less impactful gases: in 2014, 86 systems were decommissioned containing about 600 kg of R22. In their place, machines were installed containing R407C,R134A,R410A,R422D and R427A gases, not ozone depleting and with a global warming potential less than other refrigerants.

## Environmental markets and energy efficiency

In relation to environmental markets, EU directives and Italian legislation provide for enterprises to be strongly involved by means of mechanisms such as cap and trade (based on the setting of an emissions threshold and a trading mechanism), which make it possible to achieve environmental targets at a lower total economic cost for system\*.

Currently in Italy there are three cap and trade regulatory schemes in the environmental field:

- Emissions trading Scheme (ETS), which has the aim of containing carbon dioxide emissions and is linked to the Kyoto Protocol;
- 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**, which have the objective of increasing the production of electricity from renewable sources and which will remain in force until 2015 (this mechanism will be replaced by a feed-in tariff approach in 2016).

Numerous plants form part of the environmental markets and these are to be found in various Group companies:

- Emissions Trading Scheme: 22 plants including 9 thermoelectric plants and 13 cogeneration and boiler plants;
- White Certificates: 2 electricity and gas distributors;
- Green Certificates: over 30 power production plants using conventional, renewable or cogeneration sources.

In 2014 the CO<sub>2</sub> quotas allocated to A2A, within the ETS program, totalled 225,095.

With regard to energy efficiency, A2A has confirmed its position as the third operator in Italy (first among the multi-utilities) for the energy saving objective to be achieved. In 2014, white certificates were issued to A2A for its energy efficiency projects, corresponding to an emissions saving of 270,841 CO<sub>2</sub> eq.

\* The mechanisms are based, on the one hand, on the setting of a mandatory threshold (cap) by a competent authority and, on the other, on a market in permits in which parties can trade in order to meet their obligations. Introduction

The A<sub>2</sub>A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Responsible management of the environment

Responsible management of the Energy Sector Responsible management of the Heat Sector

Responsible management of the Environment Sector Responsible management of the Integrated Water Service Environmental figures

) Social responsibility

Statement of compliance



#### **A2A Trading for White Certificates**

In consideration of its obligations and the growing importance of energy efficiency, the A2A Group is committed to promoting and sustaining a reduction in the consumption of primary energy in end usage in Group companies and industrial entities, in operating as an ESCO (Energy Service Company). In particular, A2A Trading supports clients in obtaining White Certificates in all phases, from design to the preparation of projects, from the procedural approval process at the GSE up to the issue of certificates. Thanks to its presence on the market, where it has operated since this mechanism started, A2A Trading also offers support to customers for the management and sale of the certificates they have obtained, maximizing their market value. All credits connected with the Group's environmental markets are managed within A2A Trading in order to bring together in a single entity all the relevant information about new initiatives, the actual flows of the credits and the trading on the market, which also serves to optimize risk management and take advantage of opportunities connected with legal requirements.



Greenmarket section at www.a2atrading.eu or write to certificatibianchi@a2a.eu

#### **Effects connected with transport**

Many of the activities managed by the A2A Group, such as waste collection, environmental sanitation services and network maintenance, require the use of vehicles in addition to those used by staff for work-related journeys. A2A is committed to promoting sustainable mobility and, for this purpose, evaluates the transport-related impact associated with carrying out company activities, adopts advanced strategies for the management of its vehicle fleet, and undertakes initiatives aimed at reducing the consumption of oil-derived fuels and the emission of pollutants into the atmosphere. Most of the company's vehicles have a bi-fuel system, enabling them to use methane as an alternative to more polluting traditional fuels.

For Amsa and Aprica, which provide for the collection of waste mainly in urban areas, the contribution to the reduction of atmospheric emissions is through a renewal of the fleet, with special turnover programs involving the disposal of old diesel vehicles and replacement with natural gas or diesel vehicles with European standard emission Euro 5 or 6. Moreover, the search is constant for increasingly efficient vehicles under the environmental profile, fewer emissions into the atmosphere and less noise, however, that ensure the degree of efficiency required by the service.



## 4.1.6 | Management of waste and waste water

The management of plants and networks involves the production of waste and the need to discharge the water used in production cycles and not otherwise reusable. The impacts of these aspects are of particular importance in both quantitative and regulatory terms. The Group recalls particular attention by providing the tools described below, which govern the management procedures.

#### Management of the waste produced

As can be seen from the tables at the end of the section (pages 126-127), the highest production of waste is in the Energy Sector and the Group companies that deal with waste collection and treatment.

The total quantity of non-hazardous waste was virtually unchanged compared to last year (+0.7%), while there was a decline in hazardous waste (-4.6%). The lower production in the thermoelectric sector was substantially offset by higher volumes originated in the sector of environmental sanitation and professional treatment of waste.

The main waste generated by the production of electricity and thermal energy consists of: light ash and dust from flue gas treatment, heavy ash and waste, gypsum and residues from the desulfurization process of flue gas, sludge from water treatment.

This is mainly recoverable waste, sometimes through operations within the sites, such as **recovery for technological purposes of waste produced** by the WTE plant in Corteolona (Pavia): about 2% of the waste produced was used for the construction of the road to the internal landfill of the site.

Overall recovery of hazardous and non-hazardous waste generated in 2014 in the **thermoelectric sector** was 96% (+3% compared to 2013). A slight decrease (77% against 83% in 2013) was instead recorded by the **WTE plant**, due to less availability of authorized recovery facilities. The Environment Sector is characterized by low recovery rates (2% in 2014 compared to 1% last year) as the only waste products are aqueous solutions or leachate from landfills which, although made up mostly of water, are sent to authorized purification plants, classified as disposal activities.

For the **management of waste** from the Group's activities, although there are already many internal regulatory documents issued by the individual companies and/or organizational units, a **Guideline** is in the process of being issued that defines and harmonizes the general criteria for the management of aspects considered fundamentals such as:

- identification of areas of production;
- characterization and classification of waste products;
- roles and responsibilities of the manufacturer.

## Recovery and reuse of fly ash and gypsum in the Monfalcone plant



Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

# Environmental responsibility Responsible management

Responsible management of the environment

Responsible management of the Energy Sector Responsible management of the Heat Sector Responsible management

of the Environment Sector Responsible management of the Integrated Water Service

Environmental figures

Social responsibility

Statement of compliance

#### **Management of water discharges**

The protection of surface and ground water and soil and subsoil are essential objectives of the Group in carrying out its activities. Besides being a legal obligation, all actions taken that ensure the prevention of pollution of surface and underground water bodies and, the treatment of waste water, in compliance with regulatory requirements and applicable authorization are integral part of the Environmental Management System. The monitoring of the same is often through instrumentation continuously, both for the prescribed parameters in authorization and for other functional parameters for the control process (pH, conductivity dissolved oxygen). Periodic sampling and chemical and biological analyses ensure compliance with the limits for parameters that cannot otherwise be monitored.

Since 2013, the A2A Group has adopted a Guideline for waste water that unifies the approaches of all the companies in relation to:

- census and identification of waste water;
- authorization requests for industrial waste water in accordance with national and/or regional applicable legislation, before being implemented, activated or modified:
- management of the same in accordance with the general requirements defined by the applicable regulations and requirements of the authorization, specifically governing management aspects as well as the manner and frequency of monitoring the quantity and quality of waste water.

In December 2014, also for all hydroelectric units of Edipower a Guideline was issued for the management of residential and industrial waste water, including a detailed mapping of the discharge points at the single unit, which contains the description of the type of waste water, any treatment applied, the relevant authorizations and any requirements.

The reduction of the amount of waste water passes through the reuse of waste water pre or post treatment, as happens for example at the waste-toenergy plant in Brescia, where in 2014 84,000 cubic meters of waste water mainly used for the switching off of waste were recovered.

At the waste-to-energy plant in Acerra (Naples) it is planned to realize a project to **reduce waste water**. The characteristics of the treated waste water, in fact, allow re-using it for the preparation of the lime milk used in the flue gas purification line, or in other plant processes that require untreated water, such as the switching off of heavy ash.

#### 4.1.7 Other impacts of the business

#### Removal of as best os and polychlorinated biphenvls

The Group's Environmental Policy requires the careful handling of dangerous substances such as asbestos and polychlorinated biphenyls (PCBs) through the planning of extraordinary maintenance measures designed for their removal.

None of the transformers on the electrical distribution grids contain PCB in concentration of over 50 ppm.

The needs and priorities for removal activities have been identified on the basis of the survey carried out in 2012, listing Group structures where asbestos is present, and its subsequent updates.

#### Noise

A2A uses the services of skilled technicians to carry out activities for the monitoring, evaluation and mitigation of acoustic emissions for the entire life-cycle of its plants and infrastructures.

The noise produced by the company's activities is, in fact, a very sensitive topic and the subject of attention on the part of citizens. This is also why the Group dedicates commitment and resources to noise reduction of its activities, whether related to the operation of plant and infrastructure or the use of heavy equipment for public waste collection.

With reference to the latter aspect, the companies concerned are continuing purchases of increasingly quieter plant and equipment.

If there are reports or complaints from citizens, the Group companies prepare appropriate measurements to assess the need for specific mitigation measures.

In addition, periodic phonometric tests are performed

at site boundaries and at sensitive receptors. On the basis of the findings and noise in the area with plants shutdown still showed that often exceeding some noise emission limit values is not attributable to the activities performed at the production plant, but to the noise climate determined by the intense traffic in the vicinity of the plants.

## 4.1.8 | Research and innovation for the environment

The sustainability of production processes is closely associated with the provision of environmentally-friendly services and results from research and development activities which are vital for identifying innovations that can achieve the best performance levels in terms of production and the environment. At A2A, efficiency and emission reduction targets are achieved through the application of new technological solutions, the result of research carried out also in collaboration with organizations and institutions closely linked to the local context in which the companies and the Group's plants operate.

In 2014, work continued on the development of some innovative projects related to the technology of the "Smart Grid": power grids that can intelligently integrate the actions of all users connected (consumers and producers, "prosumers") in order to distribute energy efficiently, sustainably, safely and cost-effectively. The goal is to create innovative services with intelligent technologies for monitoring, control and communication able to:



#### Management of asbestos at Aspem and A2A Reti Gas

One of the environmental aspects to which **Aspem** is dedicated is the presence of asbestoscontaining materials in the workplace. Over time, a recognition has been started of the sites concerned and the state of preservation of the materials. Aspem has therefore planned a series of actions on sites identified, involving the removal of asbestos-containing products or their safety.

In 2014, the conservation status of asbestos cement roofs was verified, and a search was carried out for air-dispersed fibers at the headquarters of Via Tintoretto, in Varese. The results have revealed no risk situations. Future interventions will concern an industrial building at the headquarters, some gas pressure

reduction stations and three plants for lifting of the aqueduct networks. In addition, two roofs were the subject of over-coverage and will be monitored until dismantling expected in 2015-16.

Even A2A Reti Gas has long been engaged in the management of asbestos-containing materials present in their facilities in order to prevent the possibility of aero dispersion of fibres due to age or damage. In 2014, the coverage of 9 plants was replaced, for a total of about 755 m². At the same time, monitoring continued performing MOCF surveys (Optical Microscopy in Phase Contrast) designed to verify the presence of aero fiber dispersed at the workplace.



#### Amsa and mitigation of impacts in the urban environment

**AMSA** is highly committed to reducing the noise level of its operations. The company monitors this issue by acquiring increasingly quieter vehicles and equipment and requiring its operators to ensure correct and respectful conduct. Moreover, to mitigate the impacts of its activities in urban areas, Amsa ensures:

- designing itineraries as compatible as possible with traffic and with the conditions of the area (road works, new facilities, etc.);
- constantly monitor the routes and implement the necessary changes;
- carry out feasibility studies to make improvements to existing services and/or to design new services based on the needs of the city.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

# Environmental responsibility Responsible management

Responsible management
of the environment
Responsible management

of the Energy Sector
Responsible management
of the Heat Sector
Responsible management

of the Environment Sector Responsible management of the Integrated Water Service Environmental figures

Social responsibility

) Statement of compliance



#### Progetto S.C.U.O.L.A.: a look towards the future

Progetto S.C.U.O.L.A. (Smart Campus as Urban Open Labs) is designed to intelligently integrate various ongoing developments underway: smart grid, energy efficiency of enclosures and systems of buildings, innovative generation from renewable and other sources, advanced communications technologies to provide services to citizens, greater livability and participation to the city.

The heart of the project is the electricity network, which becomes "intelligent" thanks to innovative systems of communication, management and control, of sensors/ automation/protection.

Specific objectives of the project are:

- evolution of the electricity grid, to ensure greater continuity of service and enable the active participation of users;
- new PV panel with integrated electrical energy storage and heat production, to simplify the management of non-programmable production and improve the overall efficiency;
- integration of buildings complete with sensors and automation to monitor comfort parameters and optimize fuel consumption;
- question and answer extended, to enable user participation in the energy market and the needs of the electricity grid;
- sensors and smart devices in the area, to collect data in real time and provide information and services to users also in mobility, in order to optimize energy consumption.

- provide consumers with tools to help to optimizing the operation of the overall system;
- give consumers more information and power of choice:
- significantly reduce the environmental impact of the entire electrical system;
- increase the degree of reliability and safety of the

The electricity grid, the heart of the smart city, is thus the key element of the integration of devices and systems for measurement, control management of energy components, not only electrical but also thermal. A2A is the leader of a partnership which involves the participation of large, small and medium-sized enterprises, universities and research institutes in the territories in which the Group operates.

The projects developed by A2A Reti Elettriche that continued in 2014 include:

- Smart Domo Grid project, whose goal is to have intelligent interaction of the power grid of the distributor and EMS (Energy Management Systems) control devices of domestic systems; initiated in recent years, the project involved 21 families in the experimental phase in 2014 and was concluded in March 2015:
- IDE4L project (Ideal Grid for All), which focuses on the more electrical features, addressing areas of extreme technical complexity and significant impact on the planning and operation of the networks; the project is now halfway and will end in August 2016.

Other areas of the company carried out research and development activities in 2014; the following are only the "titles" of the projects that are covered in the sections of the related sectors:

- production of SSF (Solid Secondary Fuel) by A2A Ambiente, with high quality standards through plant engineering improvements on the section of ITS plant related to refining, through:
- o production of a significant batch of SSF at the plant in Villafalletto (Cuneo) and sending the batch produced to an experimental plant of Ansaldo Energia to carry out SSF-coal co-combustion tests;
- o start of the LCA (Life Cycle Assessment) for the SSF in collaboration with the Politecnico di Milano.
- redevelopment of the thermoelectric plant in San Filippo del Mela (Messina):
- o project of use of the SSF for the total power of Group 2;
- o Magaldi Thermodynamic Solar project (STEM) for the testing of systems of energy production from alternative sources, with particular attention to renewable sources:
- O CPV:
- o biomass anaerobic digestion for biogas production.
- integrated thermal solar system with the district heating network of the company Varese Risorse;
- project for the reduction of hexavalent chromium in the water of Brescia of A2A Ciclo Idrico.

#### Milan and Brescia in a new light: the era of Led

Milan and Brescia take a step further in the direction of "smart cities" within two years, in fact, both cities will be fully illuminated by LED. Economic sustainability, more rational use of resources, higher quality of urban life: there are countless advantages and benefits for the two cities from the ambitious and radical renewal plan of public lighting that will be implemented by A2A Reti Elettriche. The choice in favor of LEDs will mean a significant improvement in terms of efficiency, illuminating yield, light quality (and decrease in light pollution) and safety.

Milan will be the first major Italian city fully lit by LED: by August 2015, in fact, about 142 thousand light points on the municipal territory will use LED devices, but already by the beginning of Expo 80% offacilities will be renewed. When fully operational, an annual saving will be achieved of 52% of consumption - with the simultaneous reduction of 11 thousand TOE (tonnes of oil equivalent) and 23,650 tons of CO<sub>2</sub>. A2A will incur expenditure of 38 million euro over a two-year period necessary for replacing all of the city's lighting bodies and 500 control panels and installing the remote control system.

In Brescia, the project started in early 2015 and will be accomplished by 2016. Currently the public lighting network of Brescia has approximately 43 thousand light points (two-thirds of which consist of high pressure sodium vapor lamp), with an annual energy consumption of 18.2 million kWh. With the intervention of A2A consumption will be reduced to 11 million kWh. 39% less electricity will also mean an annual saving of 1,300 TOE (tonnes of oil equivalent) and 2,700 tons of CO<sub>2</sub>. The new project will involve an investment of around 12 million euro and will be fully supported by A2A. A2A has created "ILLUMINIamo", a new app to inform citizens on the progress of the project, with acounterthat allows users to know the number and percentage of light bulbs already replaced. Thanks to ILLUMINIamo, citizens can report directly to A2A - also by means of automatic detection of their device - the presence of street lights turned off or streets with the public lighting system off.



) Introduction

) The A2A Group

Strategies and policies for sustainability

Economic responsibility

# Environmental responsibility Responsible management of the environment

Responsible management of the Energy Sector Responsible management of the Heat Sector Responsible management

of the Environment Sector Responsible management of the Integrated Water Service

Environmental figures

Social responsibility

Statement of compliance

## 4.2 | Responsible Management of the Energy Sector



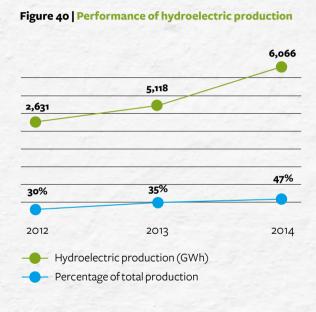
2014 EMAS Italia Award to Edipower's plant in Sermide (Mantua)



The realization was started of the plant to reduce nitrogen oxides (SCR) at the plant in Monfalcone (Gorizia)



4 innovative projects for the improvement of environmental compatibility and the use of renewable energy sources in progress at the plant in San Filippo del Mela (Messina)



Hydroelectric production of A2A in 2014 amounted to 6,066 GWh. Aggregating contributions from other sources such as biogas, renewable fraction of waste, geothermal and photovoltaic to this data, the proportion of electricity from renewable sources produced by the Group reached 52.9% in 2014.



#### 4.2.1 | Energy production

The goal of the Energy Sector, which includes the plant of A2A S.p.A. and Edipower S.p.A. (A2A Group companies), is to be a point of reference in the sector of the production of electricity, distinguished by technical and managerial efficiency, reliability, environmental excellence and compliance with corporate values. With these characteristics, the A2A Group intends to ensure sustainable development also in the energy sector, creating value for shareholders.

Efficiently manage energy production enables cost reduction and continuous improvement in performance. The year 2014 also involved the pursuit of a **consolidation** and **improvement** strategy of the structural competitiveness of assets, especially through:

- plant improvement activities, in compliance with the decrees of Integrated Environmental Authorization (IEA);
- investments in upgrading of the hydroelectric plants, aimed at obtaining green certificates, increasing production efficiency and extending useful life;
- development of initiatives to increase the production capacity of hydroelectric plants;
- seeking plant alternatives to improve the effectiveness of plants;
- implementation of activities related to the program of "energy efficiency".

#### **Energy sources**

As part of the Energy Sector strength of the A2A Group is the diversification of energy supply sources. This diversification represents a guarantee of high efficiency, flexibility and safety of the production system.

The technological mix and the locations of the plants allow the Group to meet the different energy needs of the Italian electricity market. The electricity production plants that are part of the Energy Sector are located throughout the country:

- 9 thermoelectric plants: in Chivasso (Turin), Sermide (Mantua), Piacenza, Brindisi, San Filippo del Mela (Messina), Monfalcone (Gorizia), Ponti sul Mincio (Mantova), Cassano d'Adda (Milan), Gissi (Chieti), for a total of 7.0 GW of installed capacity;
- 4 hydroelectric units: Udine, Mese (Sondrio), Grosio (Sondrio) and Catanzaro, a total of 1.9 GW of installed capacity;
- 5 photovoltaic plants installed at the plants in: Brindisi (1), San Filippo del Mela (2), Chivasso (1) and Sermide (1), for atotal of 3,450 kW of installed capacity.

At the **Power plants** the following are used: natural gas (plants in Chivasso, Sermide, Piacenza, Ponti sul Mincio, Cassano d'Adda, Gissi), dense fuel oil (plant in San Filippo del Mela) and coal (plants in Brindisi and Monfalcone).

Reduced quantities of diesel oil are used for the goodwill of steam boilers and for power supply of emergency equipment such as generators, auxiliary boilers and fire protection motor pumps. As for hydroelectric production, the energy source is turbinated water.

The conversion of some thermoelectric units fired with fuel oil in combined cycle units and the environmental improvements of units that operate with oil and coal led to significant benefits in terms of increased energy efficiency and reduced environmental impact.

Renewable energy sources, which make it possible to reduce the use of fossil fuels and become less constantly dependent on them, play a key role for the A2A Group. Hydroelectricity, historically present in the two companies from which the Group was formed, is the main renewable source used by A2A and along with thermoelectric, is the main part of electricity production.

In addition to the plants of the Energy Sector, the Group also has other plants that contribute to the production of electricity: **WTE and cogeneration plants**. An overview of the total production of electricity of the A2A Group in 2014, which shows the contribution of different types of plants, is provided in section 4.1.2 "Use of resources and renewable sources".

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

## Environmental responsibility

Responsible management of the environment

## Responsible management of the Energy Sector

Responsible management of the Heat Sector

Responsible management of the Environment Sector

Responsible management of the Integrated Water Service Environmental figures

Social responsibility

Statement of compliance

#### **Innovation in energy production**

In its energy production activities the A2A Group makes extensive use of renewable sources and is constantly engaged in the search for new eco-friendly technologies and improving existing ones. The Group promotes, inter alia, research initiatives in collaboration with various institutions and organizations in order to develop advanced technologies for the use of renewable sources. The following are some projects launched or developed in the course of 2014.

The thermoelectric plant of San Filippo del Mela (Messina) comprises 4 different innovative projects:

- Solid Secondary Fuel Project (SSF). It concerns the conversion of group 2 of the plant, in development, which is expected to be fully powered by Solid Secondary Fuel (SSF). In relation to this project information is being exchanged with the Sicily Region, preparatory to the formalization of a Memorandum of Understanding. In July 2014, a technical work group was set up for a comparison between the company and the territory about the future of the plant.
- Magaldi Thermodynamic Solar Project (STEM). At the site of the plant, experimenting with systems of energy production from alternative sources will be initiated and, in particular, from renewable sources. In an area of the plant that is not occupied by industrial facilities an experimental solar thermodynamic plant will be built. This innovative system, developed by technology partner Magaldi, uses a system of solar receivers and a fluid bed sensor consisting of sand instead of the more common molten salts, which involve greater risks in

terms of possible pollution. The experimental plant unit, of about 1 MWt, will be completed during 2015.

- CPV. With the Research Institute Fondazione Bruno Kessler and Optoelettronica in Italy, both from Trento, a partnership agreement has been signed for the development of a prototype of an innovative cogeneration and high efficiency module of concentrated photovoltaic conversion and tracking of sun exposure. Under the agreement, during 2015 Edipower will obtain the supply of the prototype at no charge and will perform the tests in installation conditions at the plant.
- Biomass anaerobic digestion for biogas production. Edipower, University of Messina and ENEA (National Agency for New Technologies, Energy and Sustainable Economic Development) have presented to the EU funding requests for the project (including research and experimentation) of a plant for anaerobic digestion in pressure. This project called EU H2020 PROBIVIRI passed the first stage of evaluation was presented in complete form in early 2015.

Other two projects of technological improvement have concerned the hydroelectric unit of Udine:

• Somplago plant. As part of the project for the partial redevelopmentofthehydroelectricplantinSomplago (3 Francis units with capacity of approximately 63 MWe each) in 2014, the redevelopment of the second group (group B) was completed, while the activities related to the last unit (group A) will end in June 2015.

• Mini-hydro plants. With regard to the mini-hydro plants, work began for total redevelopment of the plant in Savorgnana together with total redevelopment of the plants in Campolessi and Campagnola, for which relevant replacement actions are planned, aimed at renewing the plants and obtaining the Green Certificates.

As for energy efficiency, in 2014 the project continued for overall improvement of the energy performance of the Group's plants, according to the first of the purposes of Energy Saving of the European Commission (Directive 2009/29/EC), aimed at reducing consumption.

During the year, work was carried out in the field of auxiliary electrical plant consumption both on the power part, by introducing inverters, and on the lighting part, with different optimization actions. The power part concerned, in particular the installation at the plant in Sermide of two new pumps with inverter technology. A similar action involved a treatment pump for demineralized water at the plant in Piacenza.

With regard to lighting, the optimization plan was extended for the plant in Sermide, started in 2013 with the machine room and the control room, implementing it in other rooms identified generically as "technical rooms" where old illuminating bodies were replaced with new high efficiency elements. The vehicles parking area was also involved in the replacement of lighting equipment on lighting towers with LED technology lamps.

At the plant in Piacenza, given the excellent results obtained in 2013 with the introduction of LED, the replacement plan was completed in all machine rooms, removing the old metal halide lamps.

#### 4.2.2 | Management of emissions

The adjustment to the new legal limits and authorization requirements, along with installation (in recent years) of systems to reduce emissions on thermoelectric plants, allowed maintaining particularly low emission levels.

In 2013, new SCR (Selective Catalytic Reduction) systems for the denitrification of nitrogen oxides in flue gases were brought into service at the **thermoelectric plant in Piacenza**. This measure became necessary following a requirement made in the Integrated Environmental Authorization, which reduced the emissions limit set for nitrogen oxides (NO<sub>X</sub>) from 40mg/Nm³ to 30mg/Nm³. The **Brindisi thermoelectric plant** uses coal with a low sulphur content (less than 0.24% by weight) to reduce emissions of sulphur oxides and is equipped with catalytic denitrification to reduce emissions of nitrogen oxides.

At the Edipower thermoelectric plant in San Filippo del Mela (Messina) systems were installed to reduce emissions of sulfur oxides (DeSO $_X$ ), commissioned between 2002 and 2010. The plant is also equipped with combustion systems with "low NO $_X$ " and catalyst denitrification to reduce emissions of nitrogen oxides.



#### 2014 EMAS Italia Award to the plant in Sermide

The Italian Ecolabel-Ecoaudit Committee awarded the 2014 EMAS Italia Award to the Edipower plant in Sermide (Mantua). This award is reserved for EMAS registered organizations that have best interpreted and applied the inspiring principles behind the assessment tool created by the European Union. The 2014 edition of the award was dedicated to Eco Innovation, i.e. the ability to reduce environmental impacts through the development of new products, techniques, services, processes and business models that create environmental benefits. In addition, at the prestigious European EMAS Awards 2014 different Italian organizations wanted to get involved by sending their application, to prove their value and ability to innovate. The Sermide thermoelectric plant of Edipower, A2A Group company, was one of the three Italian organizations that excelled in the 2014 European competition.

In the 12 years that the plant in Sermide has obtained EMAS registration measures have been taken for safety and the environment (more than 100 targets all completed), amounting to approximately 416 million euro, for the most part aimed at reducing atmospheric emissions. These include 360 million euro invested for the conversion of the plant from fuel oil to combined cycle fed by natural gas, which allowed greatly reducing emissions of nitrogen oxides and carbon monoxide and completely eliminating emissions of particulate and sulfur dioxide. Another 54 million euro were allocated to change the gas turbines to further reduce emissions of nitrogen oxides.

Also important is the investment for the savings of water resources: with a recirculation system which allows reusing cooling water in the 2011-2013 period, 70.8% of the water previously used was saved.



#### **Combined cycle plant of Cassano closed**

Due to the continuing crisis in the thermoelectric sector and in particular of combined cycle plants, at the plant in Cassano d'Adda beginning January 1, 2014, the combined cycle 230 MW (referred to as CC1), was placed permanently out of commercial service, as not able to guarantee the flexibility and cost-effectiveness required

by the current electricity market. The measure was communicated to the Entities responsible. Negotiations are currently ongoing for a possible sale of the plant to a third-party company, specialized in the purchase and relocation of used plants.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

## Environmental responsibility

Responsible management of the environment

### Responsible management of the Energy Sector

Responsible management of the Heat Sector

Responsible management of the Environment Sector

Responsible management of the Integrated Water Service

Environmental figures

Social responsibility

Statement of compliance

To reduce emissions of dust, all the thermoelectric conventional cycle plants operating with fuel oil and coal are equipped with electrostatic precipitators. All thermoelectric plants carry out the monitoring and continuous recording of emissions into the atmosphere through an Emission Monitoring System (EMS), whose data is periodically transmitted to the control entities.

To reduce the concentration of sulphur oxides, at the thermoelectric plant in Monfalcone (Gorizia), which uses coal as fuel, desulphurization plants of limestonegypsum wet type (Flue Gas Desulphurization-wet) have been in operation since November 2008. Using these systems average monthly concentrations of sulphur dioxide (SO<sub>2</sub>) have been obtained, which are well below 200 mg/Nm³ (the limit set by the current Integrated Environmental Authorization).

To reduce emissions of nitrogen oxides works are ongoing related to the construction of the selective catalytic denitrification plant of nitrogen oxides (SCR), which is expected to become operational by the end of 2015 (refer to box for details).

#### Monfalcone plant: environmental management and commitment on the ground

A2A pays close attention to the environmental management of the Monfalcone thermoelectric plant (Gorizia) and to relationships with the area and residents living near the plant. The following are some initiatives related to 2014.

#### **International cooperation for** the dissemination of good practices

In December 2014, the plant hosted a delegation of Kosovo leaders of the Ministry of Environment, interested in receiving technical information, in particular on the coal plant with systems to reduce emissions, and clarification on the authorization processes deriving from the latest European regulations.

Representatives of Kosovo have shown great interest in the information relating to actions taken and particularly appreciated the focus on continuous improvement in the management of the plant.

#### Study on the contribution to the quality of air of emission sources on site

To prove the actual environmental impact of the plant, which operates constantly in compliance with all legislative requirements and the most stringent control standards, and offer the utmost cooperation to the authorities and other control bodies in the interest of full transparency on the measures adopted for the management of the plant, A2A has implemented voluntary additional verification actions and interventions (not prescribed by the provisions of EIA/IEA).

In September 2014, local authorities were presented the results of a study commissioned to a leading environmental research company, aimed at ascertaining contribution on air quality of any source or emission segment on the territory: thermoelectric plant, traffic, port, airport, heating, other industries and productive activities. Starting from certain emission data derived from certified databases and a detailed analysis of the weather and climatic conditions of the site, using sophisticated mathematical models, the study quantified the most significant emissions in the area, considering the percentage of each sector with respect to the overall environmental impact. This study was presented as part of the Technical Environment Work Group (including representatives of the Municipality of Monfalcone, the ARPA Friuli Venezia Giulia, the Health Authority, the Province of Gorizia and Friuli Venezia Giulia) showed that the contribution of the plant is negligible for each pollutant considered.



#### **ARPA** measurement campaign

In addition to other requirements already provided for by the IEA (Integrated Environmental Authorization) in April 2014, at during the interruption of the plant for maintenance, the regional ARPA carried out a campaign to measure air quality, based on a request received from the Environmental Technical Work Group. Local authorities have been able to monitor the air quality with the plant off, with specifically dedicated stations and instrumentation. After restarting the plant, in early May, the authorities have continued with monitoring the plant in service, in order to assess the differences in the two situations. The monitoring included in total the period April 9 to July 4, during which the plant was off from April 9 to May 5 and in service from May 6 to July 4. The report by ARPA has shown that the impact of the plant, for all species of pollutants analyzed, is negligible and irrelevant. The results of the surveys are in line with those of the study of the emission sources previously mentioned, a further demonstration of the reliability of the same.



#### Realisation of the system to reduce nitrogen oxides

To reduce emissions of nitrogen oxides (NO<sub>X</sub>) A2A presented to the competent authorities a project for the construction of a catalytic system for reducing nitrogen oxides (DeNO<sub>x</sub>) on coal Groups 1 and 2, with an investment of approximately 25 million euro. The project originated from the provisions of the decree of Integrated Environmental Authorization (IEA) to adjust the emission values of NO<sub>x</sub> of these groups to the best available techniques and involves the construction of two catalytic denitrification (SCR Selective Catalytic Reactor type High Dust), which will help to ensure, as of 2016, a reduction in emissions of NO<sub>x</sub> to concentration values in the flue gas not exceeding 180 mg/Nm³ hourly (value related to the flue gas with 6% O<sub>2</sub>). This level of concentration is below the limit specified by the European Directive 2010/75/EU on industrial emissions (IED) and is aligned to the current reference document on Best Available Techniques (BREF). According to the plan, the SCRs will, once in operation, allow the reduction of current emission levels for nitrogen oxides by over 60%.

In conformity with the project presented by A2A S.p.A., on February 27, 2014, the environmental opinion was obtained following the request for verification of not being subject to Environmental Impact Assessment (EIA).

The Integrated Environmental Authorization was also updated, which specifies the timing related to the realization of the project. With the entry into force of the Decree, the plant in Monfalcone took immediate steps to fulfil the newly-introduced requirements, provided in relation to emissions limits in the atmosphere and related monitoring methods. In particular, the plant must comply with an overall defined mass limit, relative to the emissions of NO<sub>X</sub>, until the completion of environmental works. The amount of NOX emitted into the atmosphere is well within the limits set by the IEA.

The authorization procedure of the project was finally concluded August 29, 2014 with the enactment of the Decree of the Ministry of Economic Development no. 55/03/2014 of authorization for the construction of DeNO $_{\rm X}$  at the plant.

Works on the construction of the plant are proceeding in line with the programs of construction and assembly: the construction of the ammonia storage facility was completed and deep foundation poles of the structure are being installed that will support the DeNO<sub>X</sub>. The commissioning of the new SCR systems is expected by the end of December 2015.

The A2A Group Strategies and policies for sustainability Economic responsibility Environmental responsibility Responsible management of the environment **Responsible management** of the Energy Sector Responsible management of the Heat Sector Responsible management of the Environment Sector Responsible management of the Integrated Water Service Environmental figures Social responsibility Statement of compliance Statement of the level of compliance with GRI guidelines

Introduction

### **Identity Card** At December 31, 2014

## 4.3 | Responsible Management of the Heat Sector



The total network of district heating extended by a further 35 km, which is now more than 1,000 km



In Varese, the first solar thermal power plant for district heating in Italy

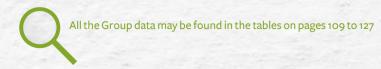


Three new superheated water boilers, fired by natural gas, for district heating of Brescia

#### Current and predicted development of A2A district heating in Lombardy

SITUATION AT 31.12.2014				Predicted development at 2016	
	Network development (double pipe) Km	Buildings connected* (utilities) No.	Volume served Mm³	Apartments equivalents**	Volume served Mm³
Bergamo area	65.6	518	5.8	24,200	7.4
Brescia area	663.9	20,634	41.8	174,200	42.6
Milan area	263.9	2,945	42.4	176,700	44.9
Varese area	16.0	145	2.7	11,150	2.7
TOTAL	1,009.4	24,242	92.7	386,250	97.6

<sup>\*</sup> Users may be a single residential unit in the case of independent heating or a whole building in the case of centralized heating.



<sup>\*\*</sup> Apartment equivalent = 80 m²

# 4.3.1 | Production and distribution of thermal energy

Through **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 some Municipalities in the respective provinces. Even the thermoelectric plants in Cassano (Milan) and Piacenza supply heat to the district heating network of the respective Municipalities. 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 Brescia Nord plant.

The useful thermal capacity of the plants is approximately 1,500 MW and is obtained with different plant solutions with high efficiency, such as heat recovery, heat pumps and cogeneration systems. The latter, which consist of the simultaneous production of electricity and heat with the same production process and the same fuel, are currently among the most effective and efficient technologies for efficient energy use and the reduction of atmospheric pollution.

The district heating of the A2A Group is helping to define a **new "model" of the city**, which combines quality, innovation and environmental sustainability.

The Group's objective is to ensure high standards of

#### A2A Calore & Servizi in the front row for CityLife in Milan



are no longer necessary: in their place a simple heat exchanger, which transfers to the areas to be heated the heat fetched from the network. Choosing district heating, CityLife has given a concrete and effective contribution to saving energy and reducing the environmental impact from domestic consumption, which are among the main causes of smog and the increased concentration of fine particles in the city's air. In addition, the Kyoto Protocol and the latest European and national regulations recognize the validity of district heating in terms of primary energy savings and reduction of greenhouse gas emissions.

#### Cascina Merlata: the High Sustainability "door" to the Expo

Anewarea designed according to the most advanced principles of environmental sustainability is being developed in the north-west of Milan: Cascina Merlata. A project that will redevelop an area of 540,000 m², near the Gallaratese area, in a strategic location for its proximity to the Rho-Pero fair and the site of Expo 2015, which will be directly connected with a bicycle-pedestrian bridge. A project that sees in the front row A2A Calore & Servizi, that laid 4 km of the district heating network to serve the whole urbanization and ensure 20 MWt capacity thermal power to 4,341 housing

units. A new district in energy class "A" therefore created in terms of sustainability. Cascina Merlata involves the construction of residences, services and public spaces, with particular attention to the urban ecosystem connected to the "green rays" for walking and cycling in the City of Milan. In addition, the project to restore the ancient Cascina Merlata, which will allow returning to the inhabitants a historic space, designed to accommodate functions of public interest and whose courtyard shall be the bicycle-pedestrian "gateway" to Expo.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

## Environmental responsibility

Responsible management of the environment

Responsible management of the Energy Sector

### Responsible management of the Heat Sector

Responsible management of the Environment Sector Responsible management of the Integrated Water Service

Environmental figures

Social responsibility

Statement of compliance



#### Calore in rete: the search for new sources of heat

A2A Calore & Servizi continues in the extension of district heating services in the metropolitan area of Milan, recovering thermal waste from industrial and energy production plants in the area. In line with EU guidelines established by Directive 2012/27/EU, laying down measures to promote and improve energy efficiency through the development of efficient district heating infrastructure, "Caloreinrete" was created: a new project of A2A Calore & Servizi aimed at the search for sources of heat from production cycles available locally

on the territory. The project aims to use the opportunities offered by the productive sectors, by entering into the network the heat currently dispersed into the atmosphere, making the cooling process and flue gas cleaning more efficient and sustainable. This new project was "baptized" by an industrial glass production site in Sesto San Giovanni (near Milan) that, thanks to the heat merged into the district heating network, will allow from 2015 heat recovery up to 4 MW otherwise dispersed into the environment.



#### In Varese, the first solar plant in Italy for district heating

By looking at the experience of the Danish and other Nordic countries, **Varese Risorse** will realize in the city of Varese the first thermal solar plant for urban district heating ever made in Italy. It is a pilot plant that will produce heat from completely renewable sources; it will extend for 990 m² and intended to supplement the heat demand of the district heating network, primarily for the production of domestic water in the summer months.

The entry into service is scheduled for spring 2015 and will allow the saving of natural gas corresponding to an annual production of heat expectancy of 450 MWht. The **environmental benefits expected** are specified in the table.

#### **Expected performance thermal solar plant in Varese**

Emissions of CO <sub>2</sub> avoided (ton/year)	108
Energy savings (toe/year)	43
Summer solar fraction	3.3%

quality, combined with environmental sustainability and attention to the needs of the territory. This aim and these principles qualify as always the work of the A2A Group and have recently been outlined and enshrined in the "Charter of Quality District Heating", made by A2A Calore & Servizi with the Consumers' Associations, which is the most advanced example in the field in terms of fairness, transparency and customer protection (see the section 5.2 on page 156).

In **Brescia**, the first Italian city to be served by a district heating network since the 70s, the network of A2A Calore & Servizi now has an extension of 664 km and connected to almost 21,000 users for a total of 174,200 equivalent apartments.

In **Milan**, in 2014 approximately 20 km of network was installed and the total size is now more than 150 km. The apartments equivalents served exceeded 100,000, an increase of 9.7% compared to 2013, and the volumes connected almost reach 24 million cubic meters. With the start of the next heating season 27 new public buildings will use district heating as a heat source. Among these: the Sormano Library, 23 elementary, middle and high schools, the centre for senior citizens in Via Don C. S. Martino and the judicial offices in Via Guastalla and Via Andreani.

In **Bergamo** district heating took the first steps in 2003 and 2014 has exceeded 500 users, including individual and buildings, equal to 5.8 million cubic meters, for a total of more than 24,000 apartments equivalents served for over 60 km of network. Many public utilities, including: the two municipal offices, the Court, the Donizetti Theatre, the Chamber of Commerce and in early 2013, the new hospital "Papa Giovanni XXIII".

In Varese, where the district heating service is provided by Varese Risorse, the network has a development of 16 km, for a total of 145 users and 11,150 equivalent apartments. In 2014 Varese Risorse signed a contract for the supply of the **first solar thermal plant** in Italy associated with the city district heating network.

The **Power plant of Cassano** (Milan) provides district heating services to numerous public and private users in the town of **Cassano d'Adda** and in the fraction of Albignano (Municipality of Truccazzano) for a total of about 35 MWt distributed to 144 users. The acquisition of new customers has been greatly reduced compared to the first years of operation, since the potential residual demand technically connectible is now quite low. In 2014, two new utilities were also connected for a total of 550 kWt and another utility of 400 kWt has been prepared.

## In 2014, 20 km laid of district heating network in Milan



#### New low-emission boilers for the district heating plant in Brescia

A2A Calore & Servizi obtained in May 2014 from the Ministry of Environment, in cooperation with the Ministry of Heritage and Culture and Tourism, the Decree of Environmental Compatibility and Integrated Environmental Authorisation (IEA) for the installation project at the district heating plant in Lamarmora in Brescia of new boilers for simple generation of heat fueled by natural gas.

 $\langle V \rangle$ 

The project involves the shutdown of existing cogeneration groups GR1 and GR2 and boiler Macchi 3 for a total of 355 MWt and installation, in their place, of three new superheated water boilers, fired by natural gas with total capacity of 285 MWt. The realization of the project was necessary to continue to provide current levels of service in the district heating system of Brescia, active for over 40 years, currently covering over 70% of the demand for heating and hot water in the city and some neighboring communities. The project is part of the continuous improvement of the environmental performance of the district heating system of Brescia and the plant in Lamarmora, in order to ensure, in the future, sustainability of district heating services. In fact, the new units will use only natural gas as fuel and will be equipped with the best available technologies for reducing emissions.

Other plants for district heating, which will

continue to stay in operation, already guarantee high energy and environmental performance, in line with the best available technology. This also due to the interventions recently made, consisting in the installation of the catalyst DeNO<sub>X</sub> and upgrading of the desulfurization plant and of the bag filter on the multi-fuel boiler of the plant. This way, the district heating services for the city of Brescia, provided by A2A Calore & Servizi, will continue to maintain its characteristics of energy efficiency and environmental sustainability.



Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

## Environmental responsibility

Responsible management of the environment

Responsible management of the Energy Sector

### Responsible management of the Heat Sector

Responsible management of the Environment Sector Responsible management

of the Integrated Water Service

Environmental figures

Social responsibility

Statement of compliance

## 4.4 | Responsible Management of the Environment Sector



Over 2.6 million tons of waste processed and disposed of during the year



Almost 1.2 million tons of urban waste processed and disposed of



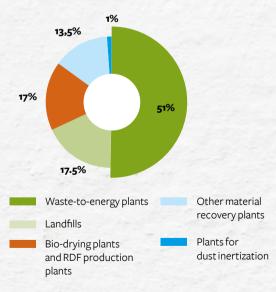
97.5% of municipal waste collected sent for energy and material recovery



**Increased** differentiated waste collection in all the Municipalities managed by Group companies

A2A is the Italian leader in the integrated waste cycle sector, from collection to the recovery and disposal of waste.

Figure 41 | Waste processed by the Group's plants by type of plant







#### 4.4.1 | Integrated waste cycle

The Integrated Waste Cycle sees the A2A Group engaged through its subsidiaries A2A Ambiente, Amsa, Aprica, Aspem in all its phases: from collection to transport up to treatment and waste-to-energy treatment of both urban and special waste.

The environmental services of the Group are aimed at both the public administration and private companies and carried out mostly in Lombardy, as well as in Piedmont and Campania.

Treatment plants of the Environment Sector play a fundamental role not only in procedures for managing incoming waste, but also in the sustainable, effective and efficient use made in the early stages of recovery of materials, energy recovery and final disposal. Therefore, monitoring and enhancement of these aspects cannot be neglected by the various companies in the sector.

Today there is great attention to the incineration of non-recyclable waste, but also **to the management of waste and resulting waste**. For this reason, A2A is committed not only to producing energy and heat saving conventional fuels, but also to using the residues from combustion in WTE plants, large part of which is destined for the recovery of materials (ex. boiler bottom ash and filtration residues).

Same situation for landfills (also those that completed the stage of waste transfer) which, in addition to being suitable for waterproofing, grassing and planting for environmental restoration, are managed, even in the post-operative phase, with collection/treatment/disposal of leachate and, where possible, with collection and recovery for energy purposes of biogas produced by biological degradation.

## Collection and transportation of urban waste

In the context of the services offered to local authorities Amsa, Aprica and Aspem provide services for **waste management and street cleaning** and the disposal of the waste collected to plants that, where possible, recover materials and energy from them. In 2014, the three companies have **collected a total of 1,238,998 tons of municipal waste**, an increase of 4% over the previous year, largely due to the full collection in the town of Como.

Figure 42 | Urban waste collected (t)



Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

## Environmental responsibility

Responsible management of the environment

Responsible management of the Energy Sector Responsible management of the Heat Sector

### Responsible management of the Environment Sector

Responsible management of the Integrated Water Service Environmental figures

Social responsibility

Statement of compliance



## Aprica: new plan for street cleaning in Brescia

In agreement with the City of Brescia, Aprica has launched a project to improve the cleanliness of the city and to deal with the growing phenomenon of waste coming from outside the city. The main actions taken to achieve the first objective:

- establishment of a thorough weekly cleaning service dedicated to the main road (121 roads for 141 km, 20% of city streets, including intersections with traffic lights, flower beds, green areas, bushes, etc.);
- control and cleaning of about 200 planters;
- cleaning of 62 "Bicimia" stations;
- control and cleaning of the city center on Sunday;
- cleaning of the Underground stations.

Moreover, to deal with possible emergencies to protect the urban décor a call service available round the clock was established. To combat the abandonment of waste, due to inappropriate conduct even by citizens of neighboring towns, the following measures were adopted:

- enhancement of the service of night control of the stations, with removal of all types of waste including special and/or dangerous;
- increase of the exchange of information with the local police, to a more targeted and effective contrast to the misconduct.

In the collection of municipal waste A2A promotes and encourages the differentiated collection of all fractions (paper, glass, plastic, metal, organic, green garden waste, etc.) by residents, using different methods depending on the needs of the Municipalities served. The 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 orienting its decisions from a technical, economic and environmental standpoint, for the best possible use of the waste in relation to any opportunities for recovering materials and energy. In many Municipalities in Lombardy, A2A performs the entire waste management and street sweeping service, while in others it only provides a partial service.

Figure 43 | Percentage of differentiated collection in the Municipalities where Group companies operate\*

	2012	2013	2014
Bergamo city	53.5%	60.3%	64.3%
Brescia city	38.9%	38.2%	38.3%
Como city	-	-	49.3%
Milan city	36.7%	43.4%	50.4%
Varese city	56.0%	58.9%	60.9%
Province of Bergamo	NA	58.6%	62.9%
Provinces of Brescia and Mantua	NA	53.7%	63.5%
Province of Milan	NA	54.6%	57.1%
Province of Varese	NA	68.7%	70.0%

<sup>\*</sup> The quantity collected and differentiated collection rate have been calculated on the basis of the recommendations of the Region of Lombardy. The data of the Provinces refer to all the Municipalities where the complete collection service is provided.

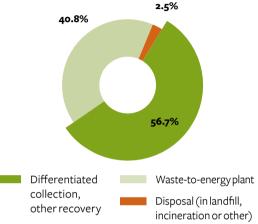
In 2014, the positive trend continued of **growth of differentiated collection**, due both to the campaigns of citizenship awareness and improvements and new measures introduced in the service (ex. use of transparent bags for undifferentiated, organic waste collection in Milan, etc.).

For the city of Brescia solutions are being studied that involve overcoming free bins and the passage to the use of mixed systems (caps and door to door), to encourage the increase of differentiated collection, counter the migration of waste from other Municipalities and start in the near future a tariff system indexed to the amount of waste disposed.

All waste disposed of with differentiated collection in 2014 was sent for recovery, obtaining four environmentally significant results at the same time: a 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 waste disposed of in landfills.

The energy content of the residual fraction of municipal waste is recovered through the WTE plants of the Group. Only a small portion of waste (2.5%) not otherwise recoverable ends up in landfills or other disposal facilities.

Figure 44 | Final destination of municipal waste collected in the provincial





Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

## Environmental responsibility

Responsible management of the environment

Responsible management of the Energy Sector Responsible management of the Heat Sector

### Responsible management of the Environment Sector

Responsible management of the Integrated Water Service Environmental figures

Social responsibility

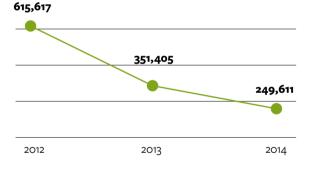
Statement of compliance

#### **Collection, transportation** and intermediation of special waste

The A2A Group provides services of collection, transportation, recovery, disposal and intermediation of special waste. The service is mainly directed to industrial and craft activities. Hazardous special waste is collected from both public (hospitals, clinics etc.) and private users (dentists, crafts workers, etc.).

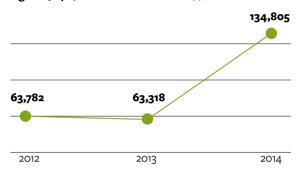
The recession has resulted in a further decline in special waste products and consequently in services related to the collection and disposal for companies

Figure 45 | Special waste collected and transported (t)



The Group also provides waste brokering services. In this context it identifies, engages and coordinates third parties, ensuring that this waste is assigned to authorized shippers and plants while optimizing management costs. The amount of waste traded more than doubled in 2014 compared to the previous two years, confirming the increasing customer confidence in the efficiency of the Group in this field.

Figure 46 | Special waste brokered (t)



#### **Waste recovery and disposal plants**

A2A Ambiente, established in 2013, is the leading environmental company of the A2A Group and is the largest operator in the recovery of materials and energy from waste and, more generally, in their treatment.

The plant system in the Environment Sector, almost entirely owned by A2A Ambiente, is differentiated so as to accommodate various types of waste and includes: 6 waste-to-energy plants, 6 bio-drying plants and production of secondary solid fuel (SSF), numerous other plants for recovery of materials (mud, glass, street sweeping lands), 15 landfills equipped with motors for the recovery of energy from biogas, in addition to 50 plants including ecological islands, collection centres for municipal waste and 3 platforms for special waste.

In 2014, the Group's plants treated a total 2,649,214 tons of waste, marking an increase of 5% compared to the previous year.

#### **Material recovery**

The Group companies carry out many activities for recovery of materials through its plants:

- the recovery of glass, paper and cardboard, plastic, wood, unusable tires, ferrous materials, etc. (mainly by selecting waste obtained through differentiated collection, bulky waste and non-differentiated waste):
- the recovery of sludge resulting from biological waste water treatment, 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 processing and washing dust from street sweeping):
- the production of fuel to be used in waste-to-energy plants (through mechanical selection processes and the bio-drying of non-differentiated urban waste);
- the treatment of solid residues from waste incineration. and fly ash from waste-to-energy plants through recovery and inertization operations.

#### In Asti A2A new plant for the recovery of glass

In 2014, a new plant of the A2A Group was completed and launched in Asti for the treatment of glass-based waste arising from differentiated collection. The plant has a maximum capacity to treat 180,000 tons of waste per year and was made using the best available technology. Refining urban glass waste results in a "ready baked" product (within the meaning of EU Regulation 1179/2012), which is transferred to a glass factory in the area for recast. The plant is equipped with a separation section of the glass by colour, in order to meet all the production needs of the glass industry. The industrial process has several phases: from the manual sorting of coarse foreign fractions

to automatic separation of ferrous and diamagnetic metals (aluminum). Lightweight materials, such as paper or plastic, are removed via aeraulic separation. The final stage consists of optical sorting equipment for the detection of ceramic parts, which must not be present in the final product so as not to jeopardize the use of recovered materials in the glass industry.

Following treatment the plant generates three main flows:

- "ready baked" glass (PAF) for the glass industry;
- inert waste (CER 191205) and metal waste (CER 191202 and CER 191203) for recovery;
- waste (CER 191212) for disposal in landfills.

Overall products sent to the glass industry and waste sent for recovery represent about **85% of the treated material**. The remaining 15% is sent to landfill. In 2015, the new plant will treat about 150,000 tons of glass-based waste, from the areas of Milan, Brescia, Bergamo and some Piedmont Consortia.

The plant's operation results in **numerous environmental benefits**: reduction in the use of pure raw materials, reduction of waste sent to landfill, reduction of carbon dioxide emissions related to the production cycle of raw materials.

#### **Waste Shredding Plant in Caivano**

The Waste Shredding, Sifting and Packaging Plant (STIR) in Caivano, managed by A2A Ambiente, is part of the integrated system of plants required for the disposal of waste in Naples and the province and is one of the hubs for the processing of undifferentiated Municipal Solid Waste (MSW) through treatment of waste shredding, in order to produce usefully two flows of waste:

 Dry fraction waste shredding (FST), loose or packed, primarily used as an energy source for the production of electricity through waste-to-energy; • Wet fraction waste shredding (FUT) sent to final destination.

The treatment process also provides for **the recovery and collection of other materials**, namely:

- **ferrous metals**, to re-enter into the circuit of secondary raw materials;
- **leachate**, sent for disposal at authorized facilities.

Planning is underway for a **new project for the treatment of the wet fraction (FUT)** produced

by the plant, which will reduce also the quantity of waste material to be sent to landfill and to recover additional dried material suitable for combustion.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

## Environmental responsibility

Responsible management of the environment

Responsible management of the Energy Sector Responsible management of the Heat Sector

### Responsible management of the Environment Sector

Responsible management of the Integrated Water Service

Environmental figures

Social responsibility

Statement of compliance



## Acerra waste-to-energy plant: clean energy from waste

**⊘**-

The Acerra waste-to-energy plant confirmed full production capacity in 2014, processing over 600,000 tons of pretreated urban waste collected in the Region of Campania and feeding around 656 GWh of electricity into the grid, which would otherwise have required the use of 115,379 metric Tons of Oil Equivalent to produce.

The plant also maintained high levels of environmental performance. Up to the end of 2014 the waste-to-energy plant has made it possible to avoid the emission of 123,520 tons of CO<sub>2</sub>. Atmospheric emissions were monitored continuously throughout the year, with two monitoring systems on each chimney stack. Monitoring campaigns were also carried out by accredited independent laboratories, all of which confirmed the reliability of the plant, the efficiency of the flue gas treatment system and the plant's full compliance with the limits set in the Integrated Environmental Authorization (IEA). The same results were also achieved on emissions of organic micro-pollutants into the atmosphere, sampled by means of systems installed on each line, and on water discharges and groundwater, repeated analyses of which have shown that emission values are in compliance with the requirements made in the authorizations for the plant.

A2A Ambiente - Campania Area confirmed the correct application of the Quality, Environment and Safety Management System, obtaining for the WTE plant EMAS registration.

Moreover, the A2A Group has two **waste washing plants** for material recovery (one in Milan and one in Brescia), for EC certified inert material in three different particle sizes: sand, gravel and chippings. These materials can be directly reused as raw materials, for example for the preparation of cement or bituminous conglomerates and the preparation of road foundations. About a third of the treated waste can be recovered and then reused usefully.

#### **Recovery of energy from waste**

The non-recyclable waste as a raw material is **used as fuel in the processes of waste-to-energy** to supply the district heating networks of Brescia, Bergamo and Milan, as well as to generate electricity, thereby saving fossil fuels.

For the A2A Group energy recovery from waste and biomass is an important part of the diversification strategy of energy sources. This activity is mainly carried out in Lombardy, at the plants in Brescia, Milan, Bergamo and Pavia, and in Campania, by managing the Acerra waste-to-energy plant in Naples.

Electricity produced from waste in 2014 was approximately 8.5% of the total electricity produced by the Group, while thermal energy from waste reached nearly 53%. On average 889 kWh of electricity and 776 kWh of thermal energy were produced for each ton of waste, with an increase on efficiency of electricity production of 10% compared with the previous year.

A significant portion of the residues derived from the combustion process in waste-to-energy plants is used further by sending them for material recovery. In 2014, this figure stood at 77%, down from the previous year (83%) due to difficulties in obtaining suitable recovery equipment.

In addition to the efficiency of the plants, the main factor that contributes to the calculation of the energy performance of WTE plants is the savings of fossil fuels achieved thanks to the combustion of waste, i.e. using materials of plant origin or otherwise discarded and not otherwise used. In this regard, it should be noted that in 2014, energy recovery of bio-dried produced at the plant Biocubi of Cavaglià (Biella) was started, which until last year was disposed of in landfills.

53%
of thermal energy produced
from waste



#### **Waste disposal**

A fundamental role in the integrated waste cycle is played by the controlled landfills, which is necessary as a way of "segregating" waste of which no further use can be made. The companies of the Environment Sector manage non-hazardous and hazardous urban and special waste landfills on their own behalf and for third parties.

Some of the landfills have come to the end of the waste disposal stage and, after being subject to **waterproofing** and environmental restoration through grass seeding and plant laying, are now in the post-operative management stage. During this period the leachate formed by the percolation of precipitation through the waste is collected and/or treated and/or disposed of. The biogas produced by the biological decomposition of the deposited waste at landfill sites is captured and where possible recovered for energy purposes. In this way use is made of all the remaining possibilities for exploiting the potential for waste recovery.

#### 4.4.2 | Management of emissions

WTEplantsreleaseemissions into the atmosphere. As for the plants of the A2A Group, the measured concentrations are always below the limits of the law or even below the limits of detection, but they are considered a significant aspect of plant operations and managed carefully. Each plant is fully involved in the management and minimization of emissions and is committed to continuously monitoring and reporting them, and investing in research and technological innovation for their reduction. Minimization or reduction of air emissions is closely linked to the reduction of consumption.



#### **Acerra: the efficient WTE plant**

An example of efficiency comes from the WTE plant in Acerra (Naples), managed by A2A Ambiente which in 2014 received the ABB Energy Efficiency Award for the efficient management of this plant, one of the most important in Europe. The plant comprises three independent lines of 27 t/h of waste, in each of which in addition to the thermal section (WTE line with steam production) is a section of flue gas cleaning. Thanks to the advanced technology used, emissions are more than 50% below the limits set by the European Directives. The waste-to-energy lines generate in the boilers steam that, thanks to the turbine connected to the alternator, produces electricity. The plant has an installed capacity of approximately 100 MW. During normal operation, about 7% of the electricity production is for auxiliaries, namely the operation of the WTE plant itself, and the remaining 93% is fed into the network and bought by the Electricity Services Operator (GSE). Any reduction in consumption of the plant (that is, the portion of energy used for its operational functions) thus translates into greater efficiency and better economic performance of production.

## To improve efficiency there were two interventions:

- adjustment of the three fans in the circuit of the secondary air fed into the boiler to complete combustion, through the insertion of as many inverters that, by adjusting the speed, allow modulating the supply of air;
- installation of inverters on the three 160 kW motors of the pumps for the extraction of the condensate, with the task of sending the water resulting from the steam to the deaerator.

## The improvements achieved are quantifiable as follows:

- ventilation system: energy savings of 260 MWh/year (about 50 toe/year), cash saving of approximately 52,000 euro year, lower CO<sub>2</sub> emissions of 112 t/year.
- pumps: energy savings of 220 MWh/year (equivalent to 42 toe/year), cash savings of about 45,000 euro year, lower emissions of CO<sub>2</sub> of 94 t/year.

Introduction

The A2A Group

for sustainability

Strategies and policies

Economic responsibility

## Environmental responsibility

Responsible management of the environment

Responsible management of the Energy Sector Responsible management of the Heat Sector

### Responsible management of the Environment Sector

Responsible management of the Integrated Water Service

Environmental figures

Social responsibility

Statement of compliance



## Brescia waste-to-energy plant: transparency on emissions

The national and European legislation, enacted in the authorization decrees of the Brescia waste-to-energy plant, sets concentration limits semi-hourly and daily for the various types of pollutants contained in the flue gas emitted from the combustion of waste. The treatment systems installed in the plant allow respecting such limits widely ensuring optimal levels of reductions, as continuously verified by the monitoring system. The removal efficiency of pollutants, such as hydrochloric acid, dust and sulfur oxides, is very high and the average emission values of all pollutants are well below allowable limits.

With decree no. 1494 February 25, 2014, the Lombardy Region renewed the Integrated Environmental Authorization (IEA) for the WTE plant. The document replaces most of the environmental permits already issued. With regard to air emissions, the decree prescribes emission limits in line with those required by law, with the exception of nitrogen oxides for which it confirmed the stricter daily limit, equal to 120 mg/Nm³, effective from January 1, 2009. As for dioxins, the decree states that there is monthly sampling with a duration of 15 days, in addition to the three annual inspections.

Since 2009, with the expansion of the filters and the introduction of catalysts for the reduction of  $NO_X$ , the performance considerably improved related to the reduction of dust, hydrochloric acid, ammonia and nitrogen oxides.

As regards **emissions from landfills**, all plants undergo collection and complete combustion of the biogas to prevent the release of methane, which possesses high greenhouse effect, as well as of odorous compounds. In landfills in Brescia in Castenedolo and Montichiari of A2A Ambiente motors used for energy recovery are equipped with post combustion systems to reduce emissions of carbon oxides and total organic carbon. Also, there is regular monitoring of emissions and the quality of biogas and perimeter air on established sampling points.

Landfill gas methanization processes help to mineralize the waste, resulting in the stabilization of the waste itself. In order to achieve a potentially significant reduction in the quantity of landfill gas emitted into the atmosphere, biogas collection networks are installed in landfills and the gas is then used to produce electricity. In the absence of energy recovery, or if there is a stoppage at the plant, the captured biogas is burned offin a flaring process. In 2014, the estimate of the amount of **dispersed biogas from landfills amounted to 5.45 million cubic meters**, which is taken into account in the balance of total CO<sub>2</sub> equivalent emitted by the Group, **compared to 55 million cubic meters of biogas captured and used** for the production of energy.

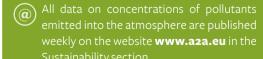
The environmental aspects related to the collection and transportation of waste are mainly related to the **consumption of** automotive **fuel** and **emissions** resulting from the use of vehicles fuelled by diesel, gasoline and natural gas; **noise pollution** caused by vehicles in service; **use of water** for street sweeping and cleaning and for washing means.

Figure 47 | Fuel consumption by means for waste collection and street cleaning

	2012	2013	2014
Petrol (TJ)	3.7	4	5.4
Diesel (TJ)	318	354	346
Methane (TJ)	95	64	94
Electricity (TJ)	0.1	0.03	0.1

The policy of the companies in the Environment Sector is to reduce the emissions from vehicles used to collect and transport wasteland in various ways, such as:

- the use of emission-reducing technologies;
- preventive and corrective maintenance of all vehicles in addition to the statutory tests and inspections;
- changing from diesel vehicles to methane or low emission diesel (Euro 5 and 6);
- use of light vehicles with electric motor for sweeping services.





#### Monitoring of emissions of the waste-to-energy plant in Acerra

At the waste-to-energy plant in Acerra (Naples), the flue gas cleaning system consists of a series of reduction plants consisting of: semi-dry absorption of acid gases, bag filtration of dust and micro-pollutants, catalytic removal of nitrogen oxides.

This sequence is one of the best available technologies according to the reference document for the incineration of waste (Bref Waste Incineration) of the EU Commission of August 2006.

Continuous measurements of the chemical-physical parameters of flue gases produced by combustion and properly treated are performed using, for each line, the Continuous Emissions Monitoring Systems (EMS), one primary and one secondary, installed in accordance with Italian and local regulations in force. The EMS allows verifying compliance with the emission limits of the law and mass balancing the quantities emitted.

In addition, external laboratories accredited perform **periodical measurements**, at least once every four months, of the parameters established by the Integrated Environmental Authorization (IEA).

The parameters monitored are:

 Nitrogen Oxides (NO<sub>X</sub>) whose limit imposed by IEA for the WTE plant of Acerra is 85 mg/Nm (compared with a national limit of 200 mg/Nm³); to stay within this value BAT was adopted: an SCR system (Selective Catalytic Reactor), consisting of areactor with a selective catalyst for the formation of molecular nitrogen from nitrogen oxides;

- Sulphur dioxide (SO<sub>2</sub>), considerably reduced by the treatment of the flue gas with calcium hydroxide; its concentration is kept very low and far from the prescribed limit of 25 mg/Nm³ (compared with a national limit of 50 mg/Nm³);
- Powders (PTS), effectively reduced by the filtration system with bag filters; the concentration limit prescribed is 3 mg/Nm³ (the national reference is 10 mg/Nm³);
- Hydrochloric acid (HCI) and hydrogen fluoride (HF), both effectively reduced by calcium hydrate in the reactor of the semi-dry flue of the gas treatment section; the prescribed limits are respectively 7 and 0.3 mg/Nm³ (national limits are 10 and 1 mg/Nm³);
- Carbon monoxide (CO), whose measured values are maintained well below the prescribed limit of 50 mg/Nm³ (equal to the national one);
- Total organic carbon (TOC), whose prescribed limit is 5 mg/Nm³ (national limit 10 mg/Nm³); in 2014, the goal has been achieved of improvement in the consumption of natural gas and reduction of TOC in the emissions of the plant, modifying the combustion chamber of the heating burners of the SCR catalyst;

• Organic micro-pollutants, are present in very low concentrations in the flue gases, thanks to operating temperatures well above those typical for their formation; their possible formation is managed with the addition of active coal in the treatment section (semi-dry reactor and fabric filter).

Introduction The A2A Group Strategies and policies for sustainability Economic responsibility Environmental responsibility Responsible management of the environment Responsible management of the Energy Sector Responsible management of the Heat Sector **Responsible management** of the Environment Sector Responsible management of the Integrated Water Service Environmental figures Social responsibility Statement of compliance

Statement of the level

of compliance with GRI guidelines

# Identity Card At December 31, 2014

## 4.5 | Responsible management of the Integrated Water Service



Water consumption per capita down by 3.5% compared to 2013



Treated 57 million cubic meters of waste water in 59 treatment plants



Invested 4 million euro for the new Brescia water treatment system 108 the Municipalities reached by integrated water services in the provinces of Brescia and Varese, including capitals. The total amount of water extracted from wells and springs in 2014 amounted to 112 million  $m^3$ .

Figure 48 | Environmental indicators for water supply

	2012	2013	2014
No. of analyses per million m³ of water supplied	2,432	3,224	4,060
Network losses	28.1%	29.9%	29.9%





### 4.5.1 | Integrated water service

The goal of the Integrated Water Service is to supply to citizens drinking water and to return it to the environment after use, in a controlled and guaranteed manner. The service includes the following activities:

- collection, which involves taking water from the environment;
- supply, the transition from water extraction points to the tanks before being placed on the network;
- purification and distribution of water suitable for human use:
- collection (in the sewer) and treatment of urban waste water and, to a lesser extent, industrial.

**A2A Ciclo Idrico** and **Aspem** carry out their activities as part of the integrated water service in the provinces of Brescia and Varese respectively, responding efficiently to service supply needs and ensuring respect for and protection of water resources while complying with Italian national legislation.

In 2014, a total of 108 Municipalities were reached by the integrated water service of the provinces of Brescia and Varese, including the capitals.

The supply of drinking water to the end customer is the final stage in the public water supply management cycle: A2A manages this service and the related activities of water supply from wells and springs and the treatment of water resources.

The main **sources of 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 spring in Villa Carcina spring (with an average flow of 55 l/s). In addition to these springs, and others with a smaller flow, the water supply also makes use of many wells.

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

The total amount of water extracted from wells and springs in 2014 amounted to 112 million m<sup>3</sup>. The per capita consumption fell (-3.5%) and the actual losses have remained below 30%.

The gathering, collection and treatment of waste water are managed by A2A Ciclo Idrico **sewage and water treatment service** in the province of Brescia alone. At the treatment plants the water is submitted to a process of eliminating pollutants, mainly by biological means, in order to give them quality characteristics compatible with safeguarding the environment, to which they are returned. The collection and sewage service collected water from a total of 59 water treatment works, all situated in the province of Brescia, for a total of approximately 57 million m³ treated.

Figure 49 | Water supply network in Brescia and Varese

GEOGRAPHIC AREA	Municipalities supplied	Wells	Sources
Brescia	1	47	3
Province of Brescia	73	128	185
Varese	3*	18	9
Province of Varese	31	69	35
TOTAL	108	262	232

\* Thenetworkof Vareseals oserves 20 ther Municipalities, including the town of Varese.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

## Environmental responsibility

Responsible management of the environment

Responsible management of the Energy Sector
Responsible management

of the Heat Sector

Responsible management of the Environment Sector

## Responsible management of the Integrated Water Service

Environmental figures

Social responsibility

Statement of compliance

# 4.5.2 | Management of environmental aspects

The collection of water, especially in the case of pumping water resources from wells, leads to a significant consumption of electricity to power the plants. A high proportion of water is currently obtained from wells, and the minimization of this type of consumption involves the use of high efficiency pumps, usually regulated by inverters which adjust the flow to the actual need of the distribution network.

Water resource monitoring is a very significant factor for the purposes of groundwater protection. Almost 30% more checks were performed in 2014 than in the previous year, in terms of the number of parameters analyzed, reaching 4,060 parameters analyzed per million m³ supplied.

#### 250,000 inhabitants

population served by the treatment plant in Verziano (BS)



Before distribution to consumers the water pumped from the wells is subjected to specific **treatments for disinfection and purification**, in order to ensure respect for the values that make it suitable for human consumption and compliance with appropriate quality requirements. Disinfection plants are present at all water supply sources, while appropriate treatment plants are present where it is necessary to eliminate specific substances. There are **65** physicochemical, biological and reverse osmosis **plants** in all.

With regard to waste water management, the **efficiency of the purification** is ensured by careful management of the process, aimed at optimizing the activity of the bacteria responsible for digesting the organic substance and reducing the concentration of pollutants. The flow rates to the purification phase are characterized by a highly quality and quantity variability. To avoid this problem occurring and in order to seek the highest levels of purification efficiency, A2A Ciclo Idrico increasingly uses equalization tanks which make it possible to homogenize the quality characteristics of the sludge and make the quantities of waste water sent to the biological treatment stages constant.

Yields for removal of COD, BOD, nitrogen and phosphorus expressed in the table below are in line with those recorded in previous years. The changes were mainly due to the qualitative/quantitative characteristics of incoming waste and climatic conditions that influence the activity of bacteria.

Figure 50 | Environmental indicators for water treatment

	2012	2013	2014
Removal yield - COD*	94%	95%	91%
Removal yield - BOD**	97%	99%	97%
Removal yield - Nitrogen	67%	70%	65%
Removal yield - Phosphorus	73%	77%	79%

- \*COD (Chemical Oxygen Demand): the quantity of oxygen required for the chemical oxidization of the organic substances present in the waste water.
- \*\* BOD (Biological Oxygen Demand): the quantity of oxygen used by micro-organisms to fully or partially metabolize the organic compounds present in the waste water.

The most important and modern water treatment plant is the one in Verzano (Brescia), which also treats waste water from Collebeato, Bovezzo, Cellatica, Gussago, Rezzato and part of waste water from Castenedolo and Roncadelle, and serving a population of around 250,000. Membrane Bio Reactor (MBR) technology, using hollow fiber membranes with a pore size of 0.035 microns, has been used on one of the three lines at this purification plant since 2001 for the pressure-driven ultrafiltration treatment of waste water. MBR technology has many technical and environmental advantages, raising purification standards using significantly less bulky equipment. The small water treatment plant at Montichiari, which has recently become operational, also uses this technology.

#### **Project for the reduction of hexavalent** chromium

In recent years, the attention of the citizens of Brescia to the quality of water distributed has significantly increased. The main source of concern is the presence of hexavalent chromium. This substance is currently classified as a carcinogen by inhalation only, but scientific debate around its carcinogenicity for ingestion is very high. In February 2014, the EFSA (the body for food safety of the European Union) stated in a document that for infants and pre-school children exposure to hexavalent chromium due to consumption can cause the onset of diseases of the gastrointestinal tract. The current limit, set by the reference standards for total

chromium (including trivalent chromium and hexavalent chromium) and confirmed in the latest edition of the Guidelines for Drinking Water Quality of the World Health Organization, is 50 ug/l. The concentrations found in the water fed into the aqueduct in Brescia have always been well below the legal limit.

The attention of A2A Ciclo Idrico to the continuous improvement of the quality of water supplied, however, prompted the company to engage in a program of removal of chromium from all sources used.

Among the possible removal techniques, A2A Ciclo Idrico has chosen to explore one based on reducing **hexavalent chromium** to trivalent chromium through the addition of ferrous sulphate and its removal by filtration. After a first experimental phase conducted in the laboratory a plant has been installed, at a well temporarily out of service consisting of a dosage station of ferrous sulphate, from a tank for the oxygen necessary for complete removal of the iron added in excess and two sand filters, placed upstream of the two active coal filters existing and required for the removal of halogenated organic compounds in the water pumped from the well.

On-site tests have confirmed the validity of the process and highlighted the possibility of a considerable system simplification, not imaginable in origin. Sand filters were thus eliminated (using for the filtration stage Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility



#### **Environmental** responsibility

Responsible management of the environment

Responsible management of the Energy Sector Responsible management of the Heat Sector

Responsible management of the Environment Sector

**Responsible management** of the Integrated

Environmental figures

Water Service

Social responsibility

Statement of compliance

Statement of the level of compliance with **GRI** guidelines





#### **Energy efficiency of purification plants**

In line with the 2014 objectives of the Quality Environment Management System, A2A Ciclo Idrico took steps during the year for energy efficiency of the purification plant in Verziano, whose average consumption of electricity in the last three years has been about 13,120 MWh/year. To identify the sectors that need work, in 2013 and 2014 monitoring was extended to almost all the equipment that contributes to the total consumption. In 2014, the denitrification mixers of line A were replaced, lowering the specific consumption of electricity by more than 3% compared to 2013.

At the other plants operated in the province of Brescia, a study has been carried out to investigate the possibility of increasing the efficiency (in terms of energy and water supplies) of lifting stations. Based on the results, at some plants old equipment was replaced with more efficient pumps, with IE3 motor. The saving achieved was around 11% (220 MWh/year). Finally, as part of the revamping of the Orzinuovi plant the air diffusers were replaced in the biological oxidation tank, with monthly average saving of more than 5,000 kWh.

### 4 Environmental responsibility

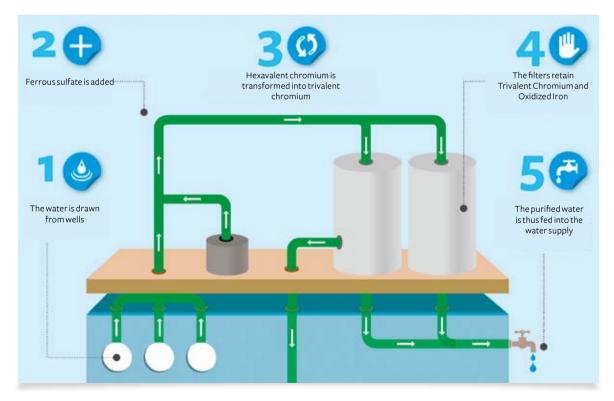
only active coal filters) as well as the dosing station of oxygen (not necessary given the high oxygen content in untreated water). This simplification has enabled rapid implementation of this method of treatment regarding public wells.

The existing active carbon filtration plants were thus upgraded, to allow the reduction of hexavalent chromium present in untreated groundwater. The results were very positive. In August 2014, before the start of the upgrading project, the average concentration of hexavalent chromium at the monitoring points of the city network was approximately 5.9  $\mu$ g/l, with a maximum of 9.7  $\mu$ g/ and a minimum of less than 2 µg/l, well below the limit set by law already mentioned above (50  $\mu$ g/l). Following the start of the reduction project, already at the end of 2014, 70% of the water fed into the aqueduct of Brescia had a concentration of hexavalent chromium of less than 2 µg/l and the forecast is to reach 100% by 2015. The technical choice adopted, supported by the results of tests carried out also in the field through a pilot plant, was based on the reduction of hexavalent chromium (VI) in trivalent chromium (III), using a suitable reducing substance (in particular, ferrous sulphate), and subsequent coagulation/flocculation with the formation of Fe (III) hydroxide and a single final filtration stage.

The control and monitoring of the entire process communicate with a central control room of the company, reporting any malfunctions. **Good water quality is ensured by both the checks carried out by A2A and health check by ASL**, with sampling frequency and analysis methods of the parameters that fully comply with local regulations.

The project involved a **total investment of over 4 million euro**, entirely contributed by A2A Ciclo Idrico.

Figure 51 | Hydraulic scheme chromium removal and halogenated organ



### **4.6** | Environmental figures

Significant indicators and data for the Group as a whole are presented in the following tables. The data relates only to plants owned and does not include the managed plants, such as the waste-to-energy plant in Acerra and heat management plants.

For the physical collection, verification and validation of

the data by the managers of individual plants, processes and services, A2A used a centralized software with a web interface accessible from any premise or location. A controlled access system allows the data to be approved and validated before being processed and aggregated to determine the environmental sustainability indicators.

### 4.6.1 | Activity data

### **Energy production**

Figure 52 | Net electricity produced divided by type of plant and source - GWh

		2012	2013	2014
Thermoelectric plants*	High efficiency natural gas combined cycles	2,600	3,782	2,252
Multi-fuel plants		2,230	3,323	3,192
Cogeneration plants		300	295	229
Waste-to-energy plants (including biogas)		1,104	1,095	1,095
Hydroelectric plants*		2,631	5,118	6,066
Photovoltaic plants (including self-consumed)		<1	3	3
TOTAL		8,864	13,616	12,837

 $<sup>*</sup> The increase compared with {\tt 2012} \, can be attributed to the inclusion of Edipower plants within the scope of the Group.$ 



### 4 Environmental responsibility

Figure 53 | Net thermal energy produced divided by type of plant and source – GWh

		2012	2013	2014
Cogeneration plants and termal recovery		752	746	527
Waste-to-energy plants		1,034	1,130	1,026
The small also to	Boilers	431	445	372
Thermal plants	Heat pumps	57	62	24
TOTAL		2,274	2,382	1,949

Figure 55 | Energy produced from waste-to-energy\*

	2012	2013	2014
Thermal energy from waste-to-energy	45.5%	47.4%	52.9%
Electricity from waste-to-energy	12.6%	8.0%	8.5%

<sup>\*</sup>Energy generated by WTE and biogas plants as percentage of total energy generated by the Group.

Figure 54 | Percentage of electricity produced by type of source

	2012	2013	2014
<b>Renewables</b> (hydro, renewable fraction of waste*, biogas, solar)	35.9%	41.8%	52.9%
Coal	25.6%	16.1%	14.3%
Natural gas	31.6%	29.2%	17.5%
Oil products	0.7%	9.1%	10.6%
Nuclear	0%	0%	0%
Non-renewable fraction of waste	6.2%	3.9%	4.7%

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

#### Figure 56 | Energy performance

	I	I	
	2012	2013	2014
Average yield from thermoelectric plants	42.6%	39.6%	37.9%
Yield from high efficiency natural gas combined cycle plants	51.3%	49.3%	47.3%
Yield from multi-fuel plants	35.6%	32.4%	33.2%
Average cogeneration yield of fossil fuel plants	78.0%	78.3%	81.0%
Average energy savings of plants for fossil fuel co-generation*	12.0%	12.6%	17.2%
Average electricity produced by 1 t of waste (Kwh/t)	819	810	889
Average thermal energy produced by 1 t of waste (Kwh/t)	713	776	776

<sup>\*</sup> This indicator was calculated with reference to the methodology described in Ministerial Decree 4/8/2011. The figure is an average and purely indicative.

### **Energy distribution**

#### Figure 57 | Electricity, thermal energy and gas fed into the grid

	2012	2013	2014
Electricity distributed (GWh)	11,361	11,099	10,782
Electricity losses in the grid* (GWh)	231	199	192
Heating and cooling energy (GWh)	2,322	2,424	1,993
Natural gas** (Mm³)	2,197	2,220	1,809

<sup>\*</sup> Source: Report on Operations.

### **Integrated waste cycle**

#### Figure 58 | Collected, transported and intermediated waste

	1	I	
	2012	2013	2014
Urban waste collected (t)	1,143,504*	1,191,539*	1,238,988
Special waste collected and transported (t)	615,617	351,405	249,611
$ \textbf{Special waste intermediated} \ (t) $	63,782	63,318	134,805
Special waste recovered	43.6%	57.0%	32.7%
Percentage of hazardous special waste	7.1%	6.5%	8.0%

<sup>\*</sup>Data recalculated to update some partially provisional figures upon drafting of the previous Sustainability Report.

### Figure 59 | Specific performance indicators of the service

	2012	2013	2014
Fuel/waste collected and transported $(MJ/t)$	280	284	299

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

### Environmental responsibility

Responsible management of the environment

Responsible management of the Energy Sector Responsible management of the Heat Sector

Responsible management of the Environment Sector Responsible management of the Integrated Water Service

#### **Environmental figures**

Social responsibility

Statement of compliance

<sup>\*\*</sup> Includes gas supplied directly to users by Retragas.

### **Environmental responsibility**

Figure 60 | Differentiated waste collection\*

	20	2012		13	2014	
	Quantity collected (t)	Index %	Quantity collected (t)	Index %	Quantity collected (t)	Index %
Bergamo	32,821	53.5%	36,595	60.3%	40,718	64.3%
Brescia	50,324	38.9%	50,230	38.2%	51,809	38.3%
Como	NA	NA	NA	NA	19,728	49.3%
Milan	244,389**	36.7%	282,318**	43.4%**	335,727	50.4%
Varese	22,250	56.0%	22,995	58.9%	24,303	60.9%
Province of Bergamo	NA	NA	4,883	58.6%	6,495	62.9%
Provinces of Brescia and Mantua	NA	NA	84,796	53.7%	85,400	63.5%
Province of Milan	NA	NA	46,571	54.6%	59,612	57.1%
Province of Varese	NA	NA	5,733	68.7%	5,884	70,0%
TOTAL/AVERAGE	349,784	39.0%	534,121	46.3%**	629,676	51.6%

 $<sup>\</sup>label{thm:continuous} {}^*\text{The quantity collected and the differentiated collection rate are calculated in accordance with the recommendations of the region of Lombardy.} \\ {}^*\text{Data recalculated to update some partially provisional figures upon drafting of the previous Sustainability Report.} \\$ 

Figure 61 | Waste processed by the Group's plants by type of plant\* - t

		i .	
	2012	2013	2014
Waste-to-energy plants	1,468,477	1,469,824	1,342,222
Landfills	247,111	286,873	465,198
Bio-drying plants and RDF production plants	425,412	415,340**	451,258
Other material recovery plants	433,310	332,692	359,682
Dust inertization plants	1,913	2,260	30,853
TOTAL	2,576,223	2,506,988**	2,649,214

 $<sup>\</sup>label{thm:condition} {}^*\operatorname{Includes} \text{ all waste received by Group facilities.} \\ {}^{**}\operatorname{Data} \text{ recalculated to update some partially provisional figures upon drafting of the previous} \\$ Sustainability Report.

### **Integrated water service**

#### Figure 62 | | Supply and distribution

	2012	2013	2014
Wells (no.)	262	262	262
Springs (no.)	198	213	232
<b>Drinking water treatment plants</b> (no.)	57	65	67
Total length of network (km)	4,709	4,738	4,747
Water supplied (Mm³)	74	68	65
Water extracted (Mm³)	117	112	112
Network losses (Mm³)	33	33	33
Potability analysis – samples (no.)	14,578	14,520	19,266
Potability analysis – total parameters (no.)	180,428	220,642	268,235

### Figure 63 | Specific performance indicators of the service

	2012	2013	2014
electricity/water supplied (kWh/m³)	nc	0.878	0.847
electricity/waste water treated (kWh/m³)	nc	0.424	0.431

### Figure 64 | Collection and treatment

	2012	2013	2014
Sewerage system – Network extension (km)	2,069	2,102	2,155
Waste water treated (Mm³)	51	57	57
Water treatment plants (no.)	59	59	59
Loads treated – COD (t)	14,775	13,906	13,235
Loads treated – BOD (t)	6,905	6,078	6,180
Loads treated - Nitrogen total (t)	1,558	1,732	1,469
Loads treated – Phosphorous total (t)	194	231	206

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

### Environmental responsibility

Responsible management of the environment
Responsible management

of the Energy Sector Responsible management of the Heat Sector

Responsible management of the Environment Sector Responsible management of the Integrated

**Environmental figures** 

Social responsibility

Water Service

Statement of compliance

### 4 Environmental responsibility

### 4.6.2 | Resources

Figure 65 | Resources used for the production of electricity and heat

	2012	2013	2014
FUELS (TJ)			
Natural gas	23,038	32,606	20,621
Coal	23,257	22,588	20,521
Oil (OCD, diesel)	610	16,143	16,371
Waste, biomass and SSF	15,226	16,232	15,063
Biogas (from Group landfills and water treatment plants)	757	769	782
AUTOMOTIVE FUELS (TJ)			
Petrol	2.3	2.8	2.9
Diesel	3.1	3.8	3.9
Methane	0.66	0.5	0.5
ELECTRICITY (TJ)	333	1,019	957
WATER RESOURCES CONSUMED (thousands of m <sup>3</sup>	3)		
From public supply	387	377	344
From wells	8,214	9,767	8,011
From surface water bodies	15	177	113
DERIVED SURFACE WATER RESOURCE FOR THE PRODUCTION OF ELECTRICITY AND FULLY RETURNED TO THE WATER BODY (thousands of m³)			
Hydroelectric production	2,765,278	10,849,566	13,426,028
Thermoelectric production	551,102	1,299,784	1,171,588

	1	1	
	2012	2013	2014
CHEMICAL PRODUCTS AND MATERIALS (t)			
Mineral acids	494	610	578
Additives/water conditioners	209	308	261
Ammonia (solution)	4,814	5,020	5,116
Gypsum and neutralizing solids	42,620	49,693	51,834
Active carbons	808	874	853
Cement, sand and inert materials	2,355	2,003	2,604
Sodium chloride	19	18	19
Technical gases (nitrogen, Co <sub>2</sub> , hydrogen, oxygen)	287	306	277
Sodium hydroxide (solution)	471	713	777
Methanol, solvents and other products	46	52	38
Odorizers	-	-	-
Oils and lubricants	112	189	108
Urea (solution)	2,541	2,580	2,341

Figure 66 | Resources used for the distribution of electricity

	2012	2013	2014
AUTOMOTIVE FUELS (TJ)			
Petrol	4.1	3.8	3.6
Diesel	7.8	7.6	7.0
Methane	2.8	2.6	2.9
ELECTRICITY (TJ)	49	61	82
WATER RESOURCES CONSUMED (thousands of ma	3)		
From public supply	221	251	205
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
Gypsum and neutralizing 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, Co <sub>2</sub> , hydrogen, oxygen)	0	0	0
Sodium hydroxide (solution)	0	0	0
Methanol, solvents and other products	0	0	0
Odorizers	0	0	0
Oils and lubricants	2.1	2.2	2.0
Urea (solution)	0	0	0

Figure 67 | Resources used for district heating

	2012	2013	2014
AUTOMOTIVE FUELS (TJ)			
Petrol	2.4	2.7	2.5
Diesel	1.7	1.7	1.6
Methane	1.8	1.7	2.0
Electricity (TJ)	31	32	23
Thermal energy (TJ – purchased externally)	882	856	913
WATER RESOURCES CONSUMED (thousands of m	3)		
From public supply	468	406	43
From wells	0	0	155
From surface water bodies	0	0	0
CHEMICAL PRODUCTS AND MATERIALS (t)			
Mineral acids	303	189	99
Additives/water conditioners	75	66	39
Ammonia (solution)	0	0	0
Gypsum and neutralizing 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, Co <sub>2</sub> , hydrogen, oxygen)	0.1	0.0	0
Sodium hydroxide (solution)	173	130	73
Methanol, solvents and other products	0.1	0.0	0
Odorizers	0	0	0
Oils and lubricants	0	0	0
Urea (solution)	0	0	0

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

### Environmental responsibility

Responsible management of the environment Responsible management of the Energy Sector Responsible management of the Heat Sector Responsible management of the Environment Sector

of the Environment Sector Responsible management of the Integrated Water Service

### **Environmental figures**

Social responsibility

Statement of compliance

Figure 68 | Resources used for gas distribution

	2012	2013	2014
FUELS (TJ)			
Natural Gas	48	48	34
AUTOMOTIVE FUELS (TJ)			
Petrol	4.1	4.2	7.1
Diesel	8.5	8.4	4.8
Methane	3.3	3.0	3.1
ELECTRICITY (TJ)	2.4	2.5	2.7
WATER RESOURCES CONSUMED (thousands of ma	3)		
From public supply	0.7	0.5	0.3
From wells	0	0	0
From surface water bodies	0	0	0
$\textbf{CHEMICAL PRODUCTS AND MATERIALS} \ (t)$			
Mineral acids	0	o	o
Additives/water conditioners	0	o	0
Ammonia (solution)	0	0	O
Gypsum and neutralizing solids	0	o	O
Active carbons	0	o	o
Cement, sand and inert materials	0	o	О
Sodium chloride	0.2	o	0.2
Technical gases (nitrogen, Co <sub>2</sub> , hydrogen, oxygen)	0	o	0.3
Sodium hydroxide (solution)	0	o	0
Methanol, solvents and other products	o	o	o
Odorizers	60	57	38
Oils and lubricants	0	0	0
Urea (solution)	0	0	0

Figure 69 | Resources used for the integrated waste cycle

	2012	2013	2014
FUELS (TJ)			
Natural Gas	0	1	1
Diesel	29	31	28
AUTOMOTIVE FUELS (TJ)			
Petrol	3.7	4.1	5.4
Diesel	318	354	346
Methane	95	64	94
Electricity for electric vehicles	0.1	0	0.1
ELECTRICITY (TJ)	85	90	97
WATER RESOURCES CONSUMED - PLANTS (thou	usands of m³)	)	
From public supply	182	180	202
From wells	304	255	224
From surface water bodies	0	0	0
CHEMICAL PRODUCTS AND MATERIALS (t)			
Mineral acids	2,307	1,685	987
Additives/water conditioners	215	229	192
Ammonia (solution)	455	516	321
Gypsum and neutralizing solids	389	269	270
Active carbons	14	50	71
Cement, sand and inert materials	59,057	68,573	228,833
Sodium chloride	1,592	1,810	102
Technical gases (nitrogen, Co <sub>2</sub> , hydrogen, oxygen)	444	533	514
Sodium hydroxide (solution)	3,774	2,660	1,874
Methanol, solvents and other products	25	155	1,685
Odorizers	0	0	0
Oils and lubricants	31	253	237
Urea (solution)	0	0	24

### Figure 70 | Resources used in the integrated water service

	2012	2013	2014
FUELS (TJ)			
Methane	0.7	0	0
Diesel	<0.1	<0.1	0
ELECTRICITY (TJ)	309	297	291
AUTOMOTIVE FUELS (TJ)			
Petrol	1.9	1.9	1.7
Methane	5.0	4.9	4.8
Diesel	1.0	1.3	1.3
<b>WATER RESOURCES</b> (thousands of m³)			
From public supply	26	126	141
From wells	0	7	14
From surface water bodies	0	0	0
CHEMICAL PRODUCTS AND MATERIALS (t)			
Mineral acids	351	296	215
Additives/water conditioners	4,105	5,621	7,819
Ammonia solution	0	0	0
Gypsum and neutralizers	62	50	50
Active carbons	36	78	52
Cement and inert materials	0	0	0
Sodium chloride (common salt)	0	0	0
Technical gases	29	126	146
Sodium hydroxide solution (caustic soda)	0	0	0
Methanol, solvents and other products	618	642	642
Odorizers	0	0	0
Hydraulic oils and lubricants	2	1	1
Urea (solution)	0	0	0

### Figure 71 | Resources used in general services

	2012	2013	2014
<b>WATER</b> (thousands of m³)	754	841	813
ELECTRICITY (TJ)	117	101	97
FUELS (TJ)			
Diesel	3	5	4
Methane	87	89	63
FUELS (TJ)			
Petrol	2	2	1
Methane	3	2	2
Diesel	11	11	10

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

### Environmental responsibility

Responsible management of the environment

Responsible management of the Energy Sector Responsible management of the Heat Sector

Responsible management of the Environment Sector Responsible management

of the Integrated
Water Service

#### **Environmental figures**

Social responsibility

Statement of compliance



### 4.6.3 | Air and Climate

### **Atmospheric emissions**

Figure 72 | Total NO<sub>X</sub> (nitrogen oxide) emissions from electricity and thermal energy production plants – t/year

		2012	2013	2014
Thermoelectric plants	High efficiency combined cycle	289	511	287
	Plants	3,401	3,809	2,156
Cogeneration plants	Fossil fuels	223	202	160
Waste-to-energy plants (including biogas)		644	652	623
Thermal plants	Fossil fuels (natural gas)	49	46	35
TOTAL		4,605	5,220	3,260

Figure 74 | Total NO<sub>X</sub> (nitrogen oxide) emissions from other plants/networks - t/year

	2012	2013	2014
Electricity distribution	0	0	0
District heating	0	0	0
Gas distribution	0.9	1.1	0.5
Integrated waste cycle	1.6	1.3	0.1
Water cycle	0.8	0.7	0.7
General services	0	0	0
TOTAL	3.3	3.2	1.3

Figure 73 | Total NO<sub>X</sub> emissions (nitrogen oxide) during transients – t/year

		2012	2013	2014
Thermoelectric plants  High efficiency combined cycle  Plants multi-fuel	High efficiency combined cycle	51	122	93
		5	128	90

Figure 75 | Total emissions of SO<sub>2</sub> (sulphur dioxide) during transients - t/year

		2012	2013	2014
The sum only obtain allowers	High efficiency combined cycle	0	0	0
Thermoelectric plants	Plants multi-fuel	4	120	45

Figure 76 | NO<sub>X</sub> emission factors of electricity and thermal energy production plants – g/kWh (e+t)

		2012	2013	2014
The sum and a state of a state	High efficiency combined cycle	0.11	0.14	0.13
Thermoelectric plants	Plants multi-fuel	1.53	1.15	0.68
Cogeneration plants	Fossil fuels	0.21	0.20	0.21
Waste-to-energy	Waste-to-energy	0.30	0.29	0.29
Thermal plants	Fossil fuels (natural gas)	0.12	0.12	0.11

Figure 77 | Total SO<sub>2</sub> (sulphur dioxide) emissions from electricity and thermal energy production plants – t/year

		2012	2013	2014
The serve electric plants	High efficiency combined cycle	0	0	0
Thermoelectric plants	Plants multi-fuel	810	1.595	818
Cogeneration plants	Fossil fuels	193	136	127
Waste-to-energy	Waste-to-energy	3	7	13
Thermal plants	Fossil fuels (naturalgas)	0	0	0
TOTAL		1,006	1,739	958

Figure 78 | Total SO<sub>2</sub> (sulphur dioxide) emissions from other plants/networks – t/year

	2012	2013	2014
Electricity distribution	0	0	0
District heating	0	0	0
Gas distribution	0	0	0
Integrated waste cycle	3.0	2.6	0
Water cycle	0.2	0.2	0
General services	0	0	0
TOTAL	3.1	2.8	0

Figure 79 | SO<sub>2</sub> emission factors from electricity production and thermal energy plants – g/kWh(e+t)

		2012	2013	2014
Thornsolostriculostr	High efficiency combined cycle	0	0	0
Thermoelectric plants	Plants multi-fuel	0.36	0.48	0.26
Cogeneration plants	Fossil fuels	0.18	0.13	0.17
Waste-to-energy plants (including biogas)	Waste-to-energy	<0.01	<0.01	<0.01
Thermal plants	Fossil fuels (naturalgas)	0	0	0

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

### Environmental responsibility

Responsible management of the environment

Responsible management of the Energy Sector Responsible management

of the Heat Sector

Responsible management of the Environment Sector Responsible management of the Integrated Water Service

#### **Environmental figures**

Social responsibility

Statement of compliance

### Environmental responsibility

Figure 80 | Total emissions of dust from production plants of electricity and thermal energy – t/year

		2012	2013	2014
The same all estatic all sate	High efficiency combined cycle	0	0	0
Thermoelectric plants	Plants multi-fuel	67	103	83
Cogeneration plants	Fossil fuels	2	2	1
Waste-to-energy (including biogas)	Waste (including biogas)	4	3	3
Thermal plants	Fossil fuels (natural gas)	0	0	0
TOTAL		73	108	87

Figure 81 | Total emissions of dust during transients - t/year

		2012	2013	2014
	High efficiency combined cycle	0	0	0
Thermoelectric plants	Plants multi-fuel	0.5	5	3

Figure 82 | Total emissions of dust from other plants/networks - t/year

	2012	2013	2014
Electricity distribution	0	0	0
District heating	0	0	0
Gas distribution	0	0	0
Integrated waste cycle	0.7	0.2	0.5
Water cycle	0	0	0
General services	0	0	0
TOTAL	0.7	0.2	0.5

Figure 83 | Dust emission factors of production plants of electricity and thermal energy - g/kWh(e+t)

		2012	2013	2014
The same all attications are	High efficiency combined cycle	0	0	0
Thermoelectric plants	Plants multi-fuel	0.05	0.03	0.03
Cogeneration plants	Fossil fuels	<0.01	<0.01	<0.01
Waste-to-energy (including biogas)	Waste (including biogas)	<0.01	<0.01	<0.01
Thermal plants	Fossil fuels (naturalgas)	0	0	0

Figure 84 | Total emissions of CO (carbon monoxide) of electricity and thermal energy production plants – t/year

		2012	2013	2014
The arms also the also also also	High efficiency combined cycle	74	74	53
Thermoelectric plants	Plants multi-fuel	76	109	171
Cogeneration plants	Fossil fuels	53	46	34
Waste-to-energy (including biogas)	Waste (including biogas)	153	164	138
Thermal plants	Fossil fuels (natural gas)	7	10	9
TOTAL		363	403	405

Figure 85 | Total emissions of CO (carbon monoxide) during transients – t/year

		2012	2013	2014
Thermoelectric plants	High efficiency combined cycle	528	1,721	1,800
•	Plants multi-fuel	9	46	31

Figure 86 | Total emissions of CO (carbon monoxide) from other plants/networks – t/year

	2012	2013	2014
Electricity distribution	0	0	0
District heating	0	0	0
Gas distribution	NA	NA	NA
Integrated waste cycle	0.6	0.6	0
Water cycle	0.3	0.2	0.3
General services	0	0	0
TOTAL	0.9	0.7	0.3

Figure 87 | Other pollutants - t/year

	2012	2013	2014
Hydrogen fluoride (HF)	8.6	7.6	5.0
Hydrochloric acid (HCI)	60	39	52
Total organic carbon	34	34	28

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

### Environmental responsibility

Responsible management of the environment

Responsible management of the Energy Sector Responsible management of the Heat Sector

Responsible management of the Environment Sector

Responsible management of the Integrated Water Service

### **Environmental figures**

Social responsibility

Statement of compliance

### **Environmental responsibility**

Figure 88 | Dioxins and Micro-pollutants – electricity and thermal energy production plants

	2012	2013	2014
Dioxins (gram equivalent)	0.014	0.010	0.021
OTHER MICRO-POLLUTANTS (KG)			
Polychlorinated biphenyls (PCBs)	0.04	0.12	0.02
<b>Metals</b> (Sb + As + Pb + Cr + Cu + Mn + Ni + V + Sn)	1,745	1,765	728
Cadmium + Thallium	16	7	6
Polycyclic Aromatic Hydrocarbons	0.63	0.22	0.63
Mercury	6	11	6

### Direct emissions of greenhouse gases and ozone-depleting gases

Figure 89 | Total CO<sub>2</sub> (carbon dioxide) emissions from electricity and thermal energy production plants\* - t/year

		2012	2013	2014
Thermoelectric plants	High efficiency combined cycle	1,009,967	1,538,100	954,569
	Plants multi-fuel	2,070,271	3,236,180	3,045,102
Cogeneration plants	Fossil fuels	324,153	332,215	262,668
Waste-to-energy plants**		989,633	964,710	909,195
Thermal plants	Fossil fuels (natural gas)	91,436	93,195	82,592
Process auxiliaries		1,150	1,508	1,366
TOTAL		4,486,610	6,165,908	5,255,492

Figure 90 | Total emissions of CO<sub>2</sub> from other plants/networks - t/year

	2012	2013	2014
Electricity distribution	0	0	0
District heating	0	0	0
Gas distribution	2,660	2,675	1,899
Integrated waste cycle	3,511	2,363	2,086
Water cycle	41	2	3
General services	5,065	5,396	3,839
TOTAL	11,277	10,436	7,827

<sup>\*</sup> The data reported is not relevant for the requirements of the Emissions Trading Directive 2003/87. \*\*Consists only of the CO2 emitted by the combustion of the non-renewable fraction.

Figure 91 | Total emissions of CO<sub>2</sub> from motor vehicles - t/year

	1	I.	
	2012	2013	2014
Production of electricity and heat	437	507	526
Integrated waste cycle (Waste collection and street cleaning)	29,219	30,246*	31,102
Integrated water service	510	503	486
General services	1,124	1,086	953
Electricity distribution	1,031	988	939
District heating	399	413	417
Gas distribution	1,112	1,094	1,046
TOTAL	33,832	34,835	35,469

Figure 92 | Emission factors of CO<sub>2</sub> of production plants of electricity and thermal energy – g/kWh(e+t)

		2012	2013	2014
Thermoelectric plants	High efficiency combined cycle (natural gas)	388	407	424
	Plants multi-fuel	929	974	954
Cogeneration plants	Combustibili fossili	315	319	347
Waste-to-energy plants	Waste-to-energy	467*	455*	429
Thermal plants	Fossil fuels (natural gas)	212	202	222

<sup>\*</sup> Data recalculated to update some partially provisional figures upon drafting of the previous Sustainability Report.

Figure 93 | Other emissions: greenhouse gases and harmful substances of the ozone layer – kg

	2012	2013	2014
Sulfur hexafluoride (SF6)	287	198	60
R134a	4,354	4,372*	2,002
<b>R22</b> (HCFC22)	252	112	27
R407C	626	116*	74
R410A	238	26	108
R427A	5	29	83
R422	8	36	352
Other refrigerant fluids	0	225	7
<b>Methane</b> (CH <sub>4</sub> )10 – losses from natural gas distribution networks**	21,138,391	23,647,473	19,077,148
<b>Methane</b> (CH <sub>4</sub> )11 – from biogas dispersed in the landfill	1,999,163	1,849,698	1,946,418

<sup>\*</sup>Data recalculated to update some partially provisional figures upon drafting of the previous Sustainability Report.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

### Environmental responsibility

Responsible management of the environment Responsible management of the Energy Sector Responsible management of the Heat Sector

of the Environment Sector Responsible management of the Integrated Water Service

#### **Environmental figures**

Social responsibility

Statement of compliance

<sup>\*\*</sup> 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.

### Indirect greenhouse gas emissions

#### Figure 94 | Indirect emissions of greenhouse gases - Scope 2\* - CO<sub>2</sub> eq/year

	2012	2013	2014
Production of electricity and heat	43,113	111,214	90,646
Integrated waste cycle (Waste collection and street cleaning)	8,880	9,860	9,203
Integrated water service	34,030	32,406	27,525
General services	12,818	10,985	9,176
Electricity distribution	NA	6,678	7,794
District heating	3,412	3,442	2,178
Gas distribution	227	269	257
TOTAL	102,479	174,853	146,780

<sup>\*</sup> Emissions of CO<sub>2</sub> 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 2012 (0.393 t/MWh) has been applied.

### **Global Impact indicators**

### Figure 95 | Global Impact indicators\*

	2012	2013	2014
<b>Total greenhouse gas emissions</b> Scope 1 (tCO <sub>2</sub> eq/year)	5,124,047	6,862,002	5,893,038
Indirect greenhouse gas emissions Scope 2 (tCO <sub>2</sub> eq/year)	102,479	174,853	146,780
Other indirect greenhouse gas emissions Scope 3 (tCO <sub>2</sub> eq/year)	727,446	746,150	1,457,729
Total emissions of ozone-depleting gases (KgR11eq)	9	4	0.9
Total acidifying emissions (tSO <sub>2</sub> eq)	4,279	5,473**	3,414

<sup>\*</sup> The increase compared with 2012 can be attributed to the inclusion of Edipower plants within the scope of the Group.

#### Figure 96 | Impact indicators due to the purchase of fuels

	2012	2013	2014
Water footprint (thousands of m³)	nc	nc	23,381
Carbon footprint (tCO <sub>2</sub> eq/year)	nc	nc	730,760

<sup>\*\*</sup> Data correct.

### 4.6.4 | Biodiversity

Figure 97 | Water released for MVF (Minimum Vital Flow) – thousands of m<sup>3</sup>

	2012	2013	2014
Water released	394,925	232,156	234,356

### 4.6.5 | Discharges and emissions into water

#### Figure 98 | Industrial waste water - volume - thousand of m<sup>3</sup>

		2012	2013	2014
	Energy production	303	268	251
	of which from waste-to-energy	185	157	158
	Integrated waste cycle	130	263	287
	General services	0	0	0
Discharged into sewers	Water cycle	0	0	0.6
	Electricity distribution	154	177	139
	District heating	0.3	0	0
	Gas distribution	4	1	1
	TOTAL	592	710	679
	Energy production	1,069	2,384	2,546
Discharged into surface water bodies	of which from waste-to-energy	o	o	o
	Integrated waste cycle	1,582	1,236	960
	General services	0	0	0

		2012	2013	2014
	Water cycle	0	0	0
Discharged into surface water bodies  Electricity distribution  District heating  Gas distribution  TOTAL	Electricity distribution	0	0	0
	District heating	0	0	0
	0	0	0	
	TOTAL	2,651	3,620	3,506
	Energy production	159	1,484	1,278
	Integrated waste cycle	236	255	237
	General services	0	0	0
Waste water recovered	Water cycle	0	0	0
in the production cycle	Electricity distribution	0	0	0
	District heating	3	1	3
	Gas distribution	0	0	0
	TOTAL	398	1,740	1,518

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

### Environmental responsibility

Responsible management of the environment

Responsible management of the Energy Sector Responsible management of the Heat Sector

Responsible management of the Environment Sector Responsible management of the Integrated

**Environmental figures** 

Social responsibility

Water Service

Statement of compliance

# Figure 99 | Industrial waste water - pollutant discharges into surface water bodies - t

		2012	2013	2014
Production and distribution of	BOD   6   16	13		
energy	COD	22	63	59
-fhishts ts seems	BOD	1	1	7
of which waste-to-energy	COD	7	10	7
Laboranto describe socile	BOD   6   16   16	14		
Integrated waste cycle	COD	130	84	42
Makerenale	BOD	0	0	0
Water cycle	COD	0	0	0
	BOD	0	0	0
Electricity distribution	COD	0	0	0
Plantakanta	BOD	0	0	0
District heating	COD	0	0	0
Can distribution	BOD	0	6 16 13 22 63 59 1 1 1 1 7 10 7 18 19 14 130 84 42 0	0
Gas distribution	COD	0	0	0
General services	BOD	0	0	0
General services	COD	0	0	0

### 4.6.6 | Waste produced by the Group

### Figure 100 | Non-hazardous special waste - t

	2012	2013	2014
Production of energy and heat	311,739	347,958	288,613
of which waste-to-energy	195,759	208,250	212,766
Integrated waste cycle	177,485	214,065	286,025
Integrated water service	20,849	20,185	20,340
General services	122	863	174
Electricity distribution	163	160	122
District heating	296	39	0
Gas distribution	443	457	154
TOTAL	511,095	583,726	595,428

#### Figura 101 | Cross-border hazardous special waste - t

	2012	2013	2014
Exported hazardous special waste Total A2A Group	47,213	36,261	21,237

<sup>\*</sup> Includes waste from treatment plants (inertization).

#### Figure 102 | Special hazardous waste - t

	2012	2013	2014
Production of energy and heat	93,340	92,501	89,037
of which waste-to-energy	92,160	89,187	84,661
Integrated waste cycle	425	428	648
Integrated water service	3	2	2
General services	47	9	11
Electricity distribution	355	35	34
District heating	11	1	4
Gas distribution	13	10	10
TOTAL	94,193	92,987	89,746
of which from PCBs	0	0	0

### Figure 103 | Special waste (hazardous and non-hazardous) sent for recovery

	2012	2013	2014
Production of energy and heat (excluding waste-to-energy)	98%	93%	96%
Waste-to-energy plant	87%	83%	77%
Integrated waste cycle	3%	1%	2%
Integrated water service	97%	98%	93%
General services	71%	93%	98%
Electricity distribution	9%	25%	100%
District heating	65%	34%	100%
Gas distribution	20%	41%	98%
AVERAGE DATA FOR THE A2A GROUP	65%	60%	49%

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

### Environmental responsibility

Responsible management of the environment Responsible management of the Energy Sector Responsible management of the Heat Sector

Responsible management of the Environment Sector Responsible management of the Integrated Water Service

#### **Environmental figures**

Social responsibility

Statement of compliance

# **5** Social responsibility dialogue School awards technology safety service quality training growth Thermoelectric plant in Sermide (MN)



5	Social responsibility	128
5.1	A2A people	130
	5.1.1 Employment	13:
	5.1.2 Industrial relations	133
	5.1.3 Health and safety	134
	5.1.4 Personnel development and management	136
	5.1.5 Corporate welfare and diversity management	139
	5.1.6 Tables: A2A people figures	143
5.2	Customers and public served	150
	5.2.1 Selling electricity and gas	15
	5.2.2 District heating and heat management	17
	5.2.3 Integrated water service	17
	5.2.4 Environmental services	179
	5.2.5 Site management	18:
	5.2.6 Management of complaints and disputes	184
	5.2.7 Tables: customer figures	18
5.3	Suppliers	190
	5.3.1 A2A and its value chains	198
	5.3.2 Tender procedures	199
	5.3.3 Supplier validation	200
	5.3.4 Sustainable supply chain management and certification	20:
	5.3.5 Disputes with suppliers	20
5.4	Institutions and local communities	204
	5.4.1 Environmental policy	206
	5.4.2 Support for initiatives and projects in the region	210
	5.4.3 Environmental education programs and initiatives	214
	5.4.4 Internal and external communication to stakeholders	21

### 5.1 A2A people



9,614 Employees of the A2A Group at December 31, 2014



Constant improvement in all accident indices



Provided 143,000 hours of training, for a per capita average of 14.9 hours



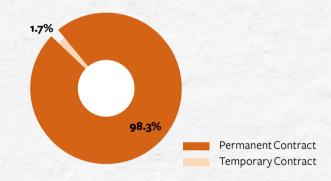
New professional development projects launched:

"Laboratorio delle Competenze" and "FuturA2A"



Over 4.7 million euro contributed to the Company recreational clubs

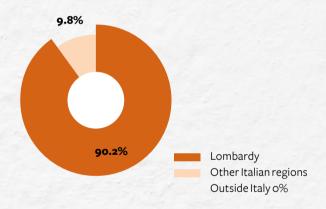
Figure 104 | Workers by type of employment contract



Of total employees, 10.3% have a university degree, 47.3% have a diploma or professional qualification and 42.5% have a high school diploma. The largest age range (37.6%) is between 41 and 50 years of age.

In 2014, 314 employees were hired in contrast to 648 terminations of employment.

Figure 105 | Personnel by workplace





### Material issues for "employee" stakeholders

#### **ISSUE 9 - EMPLOYMENT**

Employment is an important social issue and is at the same time, a key factor for the company to ensure the maintenance of adequate levels of employment and the monitoring of fundamental skills for the business. Targeted recruitments, development paths within the group and territorial outplacement ensure diversified management policies and targeted to different business needs.

#### **ISSUE 10 – INDUSTRIAL RELATIONS**

Industrial relations govern the contract (collective) of labor relations through negotiations conducted in association locations where the Group is a member and/or company headquarters. The subject contributes to a positive model of the social system of the company.

#### **ISSUE 11 – HEALTH AND SAFETY**

Accidents at work, in addition to suffering for workers and their families, have consequences for the company and for civil society. Reducing the number of accidents means improving the working environment and reducing staff absences, therefore, reducing costs and ensuring greater continuity in the production processes.

### ISSUE 12 – PERSONNEL DEVELOPMENT AND MANAGEMENT

The development of human capital, professional skills and managerial skills assumes high importance given the growing complexity of the labor market arising also from the evolution of the market and technology. A2A is investing in efforts to increase and develop the expertise of its people, through training and specific business processes (such as Performance Management) aimed at the exploitation of resources.

### ISSUE 13 – CORPORATE WELFARE AND DIVERSITY MANAGEMENT

The welfare activities for employees enhance the worklife balance and increase the sense of cohesion and belonging to the Group, as well as the integration of the company on the territory. Diversity Management is a system of human resource management oriented to the enhancement of diversity in the company, in order to create value in terms of organization and performance. Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

#### A<sub>2</sub>A people

The customers and public served Suppliers Institutions and local communities

Statement of compliance

### 5 Social responsibility



**9,614** employees at December 31, 2014.



Figure 106 | Hiring by type of contract



### 5.1.1 | Employment

At December 31, 2014 the A2A Group has **9,614 employees.** During the year there were in total **314 hires**, of which over 30% with permanent contracts.

The recruitment process has been developed in compliance with the principles of transparency, fairness and timeliness. The recruitment has allowed the coverage of the required personnel of the entire Group and was mainly realized with internal resources or with qualified personnel. In 2014, a **recruitment project for young diploma graduates** was launched to insert them in the operating departments of electricity and gas distribution, in favor of generational turnover of staff with specialized technical know-how.

Recruitment plans are supported by an **Employer Branding**, in collaboration with universities, secondary schools and high schools, in favor of youth employment, and with the objective of promoting the rapprochement between the academic and business world.

There were a total of **166 internships**, including 16 internships for obtaining the license to run steam plants and 48 placements for reintegration into work, organized in collaboration with the Municipality of Milan, for people with social and economic disadvantage.

The total number of hires decreased over the previous year by virtue of the enhancement of development/internal redevelopment paths.

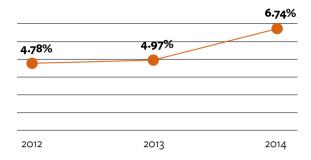
To increase opportunities of professional growth of current staff members, **49 internal recruitments**, were implemented in 2014 through job postings, tool that allows enhancement of the professional skills of all

employees. To date, about **half of these positions was covered successfully** by internal staff, demonstrating the effectiveness of the tool and appreciation by employees, as well as the Group's commitment in enhancing internal human capital and skills present.

Over the course of the year there were **648 separations** for a 6.74% turnover rate an increase over 2013. The increase in outgoing is the result of a staff reorganization policy, in relation to the market situation, realized through the adoption of measures of individual incentives and the start of mobility procedures involving employees of the business units Generation and Trading, Networks, Heat and the central staff of A2A and Edipower. These initiatives have had a low social impact, as employees involved accrue pension rights within the period of duration of mobility. The objective of the staff reorganization policy was to increase management effectiveness and efficiency, in order to maximize the competitiveness of the business and to support the process of integration of the central staff of A2A and Edipower began in 2013. To support these actions, professional and territorial initiatives for relocation of employees to areas less impacted by the mobility business were launched, for some areas of the business, as well as programs for retraining of personnel in order to facilitate the change of generations (such as the project "Laboratory of skills" for the Networks business unit).

In the year there was a **decrease in the number of terminations of fixed-term contracts** (from 266 to 173), while the use of seasonal contracts for the organization of work in the summer remained significant and, by Amsa, for the collection of leaves in autumn.

Figure 107 | Turnover rate



### 5.1.2 | Industrial relations

All of the Group's workers are covered by the National collective Labor Agreements (CCNL), which establish the means of dealing with trade union relationships at the various levels of representation: national, local and single company level.

National bargaining with the trade unions is carried out through employers' associations to which the Group adheres (first Assoelettrica, Federutility and Federambiente) and with the direct participation of representatives of major companies in the sector, including A2A.

The integrated bargaining of CCNL national collective labour agreement applied was ample and articulated, which takes place mainly at the corporate level with territorial trade unions and with internal union representatives (RSA or RSU). In particular, in this context, agreements have been negotiated for the period 2014-2016 with regard to increases in productivity and improved business performance.

In 2014 105 agreements have been signed with the unions, which can be grouped according to the following classes of reference:

- working hours and organization;
- the use of technologies for the safety of work sites and work activities;
- the transfer of companies, business units and contracts;
- personnel management, training and education;
- health and safety training;
- functioning of industrial relations and social institutions;
- reduction of surplus staff with the application of social guarantees and economic incentives;
- productivity enhancement.

The agreements have affected all business units and companies of the Group; in particular, 22 of them involved the parent company. Issues related to health and safety in the workplace have found ample space in relations with trade unions.

Laws, employment contracts and company agreements specify the required **notice period to be given in the case of transfer of personnel** following operational changes, organizational changes or contract succession.

As for the issue of the size of the workforce, the Group has provided great attention to developing policies and approaches to limit the social impacts, focusing on institutions that could allow the workers concerned to use early retirement schemes and incentives to support income

Regarding **strikes** the standards and safeguards provided by law no. 146/1990, as amended, are applied

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

### Social responsibility

### A<sub>2</sub>A people

The customers and public served Suppliers Institutions and local communities

Statement of compliance

### 5 Social responsibility

"Regulations on exercising the right to strike in essential public services and safeguarding the rights of constitutionally protected persons". In this case, the Group establishes the maintenance of minimum services essential for the safety of the plants. The criteria used to identify the staff required are determined with the trade union organizations.

Employees join or may elect to join **supplementary pension schemes** in compliance with their specific employment contracts. The main supplementary pension funds are: Pegaso, Fonte, Fopen, Fondichim and Previambiente, while for senior managers Previndai and Mario Negri. The Group also recognizes forms of individual benefits or supplementary remuneration in the event of special problems relating to personal situations, gender or age.

Labor disputes in progress or completed in 2014 to talled 175, including 27 concerning the appeal of dismissals (16 disciplinary, 2 for exceeding the period indicated and 10 for just cause). In 29 cases, claimants asked to be hired on a permanent basis. In other 5 proceedings, the claimants complained about a demotion and in 56 cases they requested a classification in higher categories. Moreover, 8 cases were in progress in 2014 for alleged occupational illnesses or accidents. The remaining causes concerned various requests such as, but not limited to: claims of remuneration differences other than for senior management, appeals to the sale of business units, appeals of conservative disciplinary proceedings.

### 5.1.3 | Health and safety

For A2A, the prevention of occupational accidents and illnesses is an indispensable objective of its business activities, going beyond merely meeting legislative requirements. Each function is required to act in compliance with the rules of business conduct, requiring the utmost attention to any work performed according to the rules on the health and safety of workers. The same commitment is required of all contractors with whom the Group works.

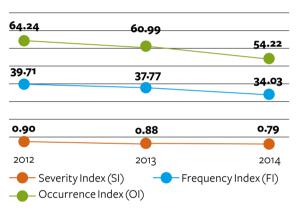
In this sense, work continued for **certification according to the OHSAS 18001 standard** to promote the adoption of a more effective and efficient safety management system, able to ensure not only compliance with the mandatory standards, but also continuous improvement in line with the objectives of the company's policy for safety.

In addition, the guidelines and procedures designed to identify significant roles in health and safety in the workplace have continued to be updated, with the aim of ensuring increased organizational consistency in managingthese issues and facilitating the implementation of the Safety Management System, in compliance with the legislative model in force in each Group company.

In particular, work has begun on mapping of the aspects related to health, safety and the environment in the process of tender management, aimed at the issuance of a guideline of the Group for the control of these aspects. At least once a year all the Group's companies and plants hold a meeting (pursuant to article 35 Legislative Decree 81/2008) which is attended by the employer (or representative), the Head of Prevention and Protection (RSPP), the physician in charge and the workers' safety representative (RLS), representing all workers.

The aggregated data of all companies of the A2A Group which fall within the scope of reference indicate a **constant improvement in all accident rates** during 2014, confirming the positive trend already noted in 2013 at Group level.

#### Figure 108 | Accident indices A2A Group



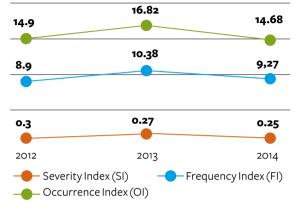
Companies that are similar from a work-risk standpoint have been grouped together into two macro-sectors to make the Group's accident statistics easier to understand and more comparable:

- **Environment Sector**, which consists of the companies operating in the waste cycle: Amsa, Aprica, A2A Ambiente and subsidiaries;
- **Energy Sector**, which consists of all the other Group companies, which essentially operate in energy generation and distribution and in the water cycle.

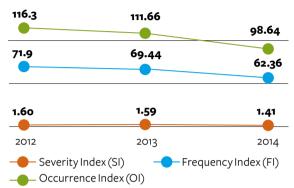
For the Energy Sector, the general trend of the 2012-2014 period indicates a situation of substantial stability, with an improvement in 2014 of all the indexes which, after a slight deterioration recorded last year, are back at the level reached in 2012. For the Environment Sector on the other hand there was a substantial improvement over the course of the three-year period.



Figure 109 | Accident indices - Energy Sector



#### Figure 110 | Accident indices - Environment Sector



#### **Safety of contractors**

In 2014, 9 injuries were recorded with a prognosis of more than 3 days to recover, involving employees of contractors during operating activities at the main A2A plants, with a total of 150 working days lost. In view of the number of hours worked, the indices of frequency and severity recorded are respectively a 5.90

and 0.10: a marked improvement in performance that corresponds to a halving of the number of accidents compared to 2013.

In 2014, training activities involved 93 employees of contractors, for a total of 372 hours of training provided.

#### Figure 111 | Accident indexes of contractors

	Hours worked by contractors	Number of accidents	Days lost	9.29 0.00	SI
Environment	430,511	4	34	9.29	0.08
Heat & Services	73,565	0	0	0.00	0.00
Generation	1,022,360	5	116	4.89	0.11
TOTAL	1,526,436	9	150	5.90	0.10

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility A2A people

The customers and public served Suppliers

Institutions and local communities

Statement of compliance

#### Workers' health

The A2A Group companies that have a significant biological risk are those that operate in the sector of environmental sanitation (Amsa and Aprica) and those that deal with civil water purification (A2A Ciclo Idrico).

Thanks to targeted activities of prevention and protection to mitigate as much as possible the risk in question, in the last three years there have been no cases of illness caused by contact with work-related pathogens.

**Occupational illness** (often referred to as "technopathy") is a condition that affects employees

during the performance of work and that is due to exposure over time to a risk factor in the environment and in the places where they operate; therefore, it provides an indication of the "preservation" of workers' health over time, even after the term of employment with the company. All Group companies operate with the goal of reducing the possibility that workers may suffer from an illness due to activities performed in the company. This is realized by implementing work on the plant using the best available techniques on the market and/or replacing hazardous materials with other non-hazardous

materials, as well as allocating specific budgets for the health and safety of workers. In 2014, there were 17 complaints of occupational illness, made by the worker himself with a personal doctor or the doctor in charge at the company. Of these, 14 concerned cases in northern Italy and 3 in southern Italy. Males were mostly concerned with 16 cases.

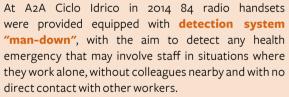
# 5.1.4 | Personnel development and management

**Enhancing the value of human resources** is one of the basic objectives that A2A set itself on creation, and each individual company of the Group is committed to promoting the growth of internal staff into positions of increasing complexity and responsibility.

In 2014, activities continued aimed at increasing the knowledge of the young employees of A2A with a view to rapprochement and listening. Specifically there were:

- 25tutoring interviews for new recruits (graduates), to support the employee in the induction in A2A through an individual session, essential to intercept the experience of new hires and guide choices in the management of human resources;
- 65 development centers for young professionals (graduates) is a path for development and enhancement in which the moment of observation and assessment of skills is integrated with training. Following participation, each employee receives structured feedback (in terms of strengths and areas for improvement) and can reflect on the personal path, developing greater awareness of the fundamental organizational conduct. As of

### Portable radios for employees of A2A Ciclo Idrico



Such devices in connection with the Remote Control unit of A2A Reti Elettriche allow, as a result of the emergency signal, detecting the position on the territory with an accuracy of 5-10 m, through the geo-referenced corporate radio network.

The staff was informed and trained on the use of the devices and the instruction manual "Procedures for managing and using the radio with man down device" was also drafted.



2014, the manager of the young professional is involved directly in the return phase, encouraging the development of greater managerial skills and a culture oriented to the exploitation of personal resources:

• 37 **follow-up**, meetings that enhance the conclusion of the path of development center and represent an important opportunity for participants to reflect on their own development, after about one year of professional growth.

From 2010 to date, 142 young professionals have been involved in development center activities.

In 2014, the **project "Laboratory of Skills"** was initiated aimed at enhancement of specific skills available in some companies of the Networks business unit.

The aim of this project is to establish skill development paths in order to foster the professional growth of staff, develop the technical know-how and organizational conduct important for the business. The definition of the role profiles directly involved employees: about 120 people.

In mid-December 2014 the pilot phase began, which involved a group of employees in the first phase of self census to define the next training and development programs. The project involves an extension to other resources in 2015: about 80 different profiles for a total of about 600 employees belonging to the Networks business unit. In the month of December 2014, "Futura2a", was launched initiative dedicated to young graduates of the Group (approximately 250), which aims to foster innovation by developing new ideas for the business and the creation of an online community and specific events.

### A2A Day for young new hires

Over the years A2A has developed an "induction" path for young new hires, to provide them with a more complete view of the Group's organization, to help them get to know some of the companies' most important activities and projects, and to foster a sense of identity and belonging.

In 2014, the same path proved useful for the induction plan of the Edipower workforce integrated into the Group. Specifically for Edipower staff, there were three editions of the "A2A Day" initiative (one of which dedicated to managers), involving 190 participants for a total of about 2,000 hours.

During the year, 143 thousand hours of training were provided, for an average of more than 14 hours per person.

The largest portion of **training activities** overall were devoted, as in the past, to **safety**, because regulatory changes continue to expand the scope of mandatory training and the Group's attention to this aspect. **IT training**, also increased following the acquisition of a new release of the management systems to support the various activities of the Group.

Figure 112 | Average training hours per person

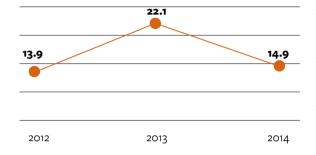
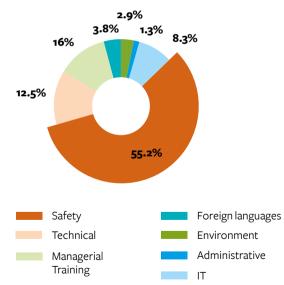


Figure 113 | Main training areas in A2A



Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

## Social responsibility

#### A<sub>2</sub>A people

The customers and public served Suppliers Institutions and local communities

Statement of compliance

### 5 Social responsibility

In 2014, **managerial training** resumed with 3,172 participants and more than 23,000 hours of training. **Language training** involved 275 people for about 5,500 hours; the main language is English, along with other languages courses for specific needs: French, German and Italian.

Work continued on the use of the **e-learning platform** as a supplementary channel for the provision of training, which recorded more than 2,670 hours in the year, with 2,870 participants.

At the end of each course a questionnaire is regularly distributed to all participants of training initiatives to collect feedback: the average satisfaction was quite high, reaching the value of 5.9 on a scale of 1 to 7.



### The right training for everyone

- A2A Energia: Innovation League. Training course dedicated to heads, aimed at strengthening the identity and cohesion of resources improving teamwork and team spirit through the realization of a project of company interest: the development of new business ideas. The initiative involved 57 people for a total of 1,766 hours of training, with 5.8 average approval out 7.
- A2A Calore & Servizi: Quality of customer relations. Actions
  continued dedicated to managers and key accounts, aimed at improving
  customer satisfaction, in relation to the quality of the service provided.
  The course consisted of 965 training hours, 129 participants, with average
  appreciation 5.7 out of 7.
- A2A Calore & Servizi: Team Building and corporate volunteering. Initiative conceived to create cohesion and strengthen the sense of belonging, in collaboration with a non-profit organization. Participants were involved in activities of social interest carried out at the Abbazia di Chiaravalle, enhancing teamwork and creating value for the host community and the territory. 40 people involved, for a total of 529 hours.
- Amsa: Project "DireFarePensare: my ideas for our company".
   Designed to collect suggestions for the improvement of daily activities and develop a sense of belonging to the company among operational staff. The 504 participants had 43 group discussions, developing more than 300 ideas. A technical and institutional jury chose the ideas that can be implemented immediately, awarded during the "loyalty bonus" for employees.
- Edipower: Effective and efficiency for reaching the objectives of the Business Plan. The initiative involved 14 managers of Edipower, for a total of 200 hours, with the aim of assisting managers in the integration process, in achieving challenging business objectives and finding a balance between efficiency and development, promoting an overall shared team vision and a homogeneous management culture.



A2A uses a **performance management** system which is gradually being extended to increasing sectors of the Company's employees. This process was set up in 2009 and by 2014 its use had extended to appraising all senior managers, middle managers and white-collar workers of the Group's companies, with the sole exception of Camuna Energia and Edipower.

A2A's 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 people's behavior within an organization: the individual results they achieve, the conduct they adhere to, and their personal improvement plans. In 2014, this training path involved newly appointed supervisors for a total of 355 hours and 25 attendances.

To develop organizational conduct in line with the Business Plan and new business challenges, downstream of a process of discussion and listening with the management, **the business skills model was revised**. This will simplify the performance evaluation for the year 2014.

#### Remuneration and incentives

As in previous years, in 2014 the remuneration policy was primarily aimed at ensuring the correct pay positioning of employees in relation to the activities assigned to them and to enhance the performance of work and conduct. Compared to previous years and in terms of employee assignees, the short-term incentives (MBO) was instead extended. This instrument, in the past limited to management and the sales force, was extended to some middle-managers in 2014.

For the remaining employees, economic recognition mechanisms of job performance and conduct were instead maintained in terms of "one-off payment".

To ensure all the Group's staff are involved, including those not assignees of MBO, 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 contributions to the supplementary pension scheme of the sector.

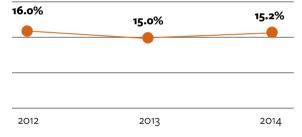
On induction, in the absence of past working experience, A2A pays men and women the minimum wage or salary established by the applicable national collective labour agreement for the category into which they fall.

Net of capitalized expenses, **labour costs** in the year ended December 31, 2014 amounted to 649 million euro, down 15 million euro compared to 2013.

# 5.1.5 | Corporate welfare and diversity management

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.

Figure 114 | Female population as a percentage of total personnel\*



\*The decrease in percentage of the female population is due to the acquisition of the company Edipower, in which 90% of employees are male.

By adopting the **Charter for Equal Opportunities and Equality at Work**, signed in 2012, the Group has made a commitment to promote the diversity of its organization by identifying and overcoming stereotypes associated with gender, age, disability, ethnicity, religion and sexual orientation.

In establishing the type of contract and remuneration, A2A abides scrupulously by Italian legislation, which excludes distinction of any kind by gender. With the same category level, there are no differences between

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

### Social responsibility

#### A<sub>2</sub>A people

The customers and public served Suppliers Institutions and local communities

Statement of compliance

### 5 Social responsibility



Figure 115 | Average salary of women vs. men

Category	2012	2013	2014
Senior managers	98.1%	98.9%	101.2%
Middle-managers	98.0%	98.5%	97.5%
White-collar workers	91.0%	90.3%	89.5%
Blue-collar workers	90.0%	91.3%	91.1%

the basic salary of women and men. Moreover, while there are still slight differences in the average salary of the different categories, managers on average do not show any differences. To help employees reconcile work and private life, the Group has granted 359 part-time jobs (3.7% of total employees), of which 69.3% 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 priority. Parental leave was granted to 457 people, of which 60% women. 93.8% of the people granted parental leave in 2014 returned to work in the same year.

A2A ensures working rights for **people with disabilities**, as required by current legislation. **419** disabled persons were employed by the Group in 2014, of whom 21.9% women.

#### Internal communication

The work at the company and the professional experiences, territories and industrial sectors, plants and networks: the corporate magazine **Inadueà** is a window on the activities of A2A and occupations of Group employees. The magazine began publication four years ago: its frequency is quarterly and is delivered in paper format by mail to all employees. A web version is also available on the company's Intranet.

The various phases of the Inadueà process is printed and distributed in accordance with precise eco-compatibility standards, ranging from the paper (FSC) and ink used, to the packaging in "mater-bi" bioplastic for mailing.

Regarding the contents, in addition to the projects and achievements that have characterized the different business sectors of the Group, also in 2014 Inadueà dedicated ample space to the company trades and life: from the sections "A day in the life of..." and "We and our Group" to the initiatives promoted internally to the different companies of A2A and aimed at collecting ideas and proposals, and strengthening cohesion and the sense of belonging among employees, up to the "open day" aimed at family members and organized at different locations and facilities.

Another internal communication channel is the **portal www.a2a.eu**, which represents for employees a valuable business tool through which to obtain information useful for the conduct of their business.

#### Other initiatives benefiting employees

In January 2013, a Social Policies team was established within the Group, with the aim of devising and developing **corporate welfare** activities for the benefit of employees, favoring an improved work/life balance and increased sense of cohesion and belonging. The activities are open to all personnel, whether working on a fixed-term or permanent basis, full-time or part-time.

For those who work in the Milan area, the agreement between A2A and ATM (the Milan transport company) has continued, enabling employees to purchase annual transport passes with particularly favorable conditions. The agreement consists in a price reduction of 15%, with the possibility of paying in twelve monthly installments without interest and receiving the pass directly at their place of work. In 2014, the agreement between Edipower and ATM was incorporated in the A2A-ATM agreement. Applications for 858 annual passes were made in the year. For the territory of Brescia at the beginning of 2014, an agreement was signed between A2A and Brescia Trasporti to purchase annual subscriptions at favorable conditions for employees. There were 32 requests during the year. For Amsa employees, specific initiatives have been continued to facilitate the daily commute of groups of workers.

For employees of Edipower an agreement was also created that provides favorable conditions for the **issue** of personal credit cards.

In 2014, the service of **socio-psychological assistance** pcontinued for employees, who have the opportunity to attend free talks with a psychologist present at some corporate offices of A2A (Milan and Cassano d'Adda) and Amsa. In 2013, the service was extended to the Brescia and

Bergamo locations, for a total coverage of 14 locations of the Group.

A2A has a **company daycare center** situated next to the Brescia location which gives priority to the children of the Group's employees. It also accepts, on a pro-rata basis, the children of employees of other companies with which it has an agreement and the children of private citizens in the area. The daycare center can accept up to 60 children, with ages ranging from 12 to 36 months. A2A and its partner companies contribute to a portion of the monthly charges payable by employees. During 2014, the pilot kindergarten project was consolidated for children aged 3 to 6, started in 2013, to ensure the continuity of the educational experience in the same facility. In 2014, 20 children in total of Group employees attended the facility. An important role in offering A2A's employees, retirees

and family members interesting ways to spend their free time through the **Company's Recreational Clubs**: CRAEM (Milan), CRASM (Brescia), FIDAS Amsa, CRAL ASM Bergamo, CRAL Beni Culturali Napoli and Arca for Edipower employees. The first two clubs have the widest membership and go back to the two companies, AEM Milano and ASM Brescia, that merged on January 1, 2008, creating the A2A Group. The A2A Group made **contributions totalling 4,741,928 euro** to the recreational clubs in 2014.

Introduction

The A<sub>2</sub>A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

### Social responsibility

#### A<sub>2</sub>A people

The customers and public served Suppliers Institutions and local communities

Statement of compliance

Statement of the level of compliance with GRI guidelines

### Employees' family visit

Open Day Silla 2. The plant was opened on October 19, 2014 to employees of Amsa, A2A Ambiente and their families. This special opening was proposed by employees of Amsa who took part in the project "DireFarePensare". The intention was to create an opportunity to meet and to share with their families how Silla 2 enhances non-differentiated waste and transforms it into heat and electricity. Nearly 200 visitors were presented with an overview of the plant and the integrated waste management system (collection, recovery, end use).

Open Day A2A Energia. As a follow up to one of the proposals arising from the project "The energy of your ideas" on November 14 and 15, 2014 the offices of different location of A2A Energia welcomed the families of employees. Over 180 employees and family members went to the headquarters of Brescia and Milan and call centers in Cermenate (Milan) and Sondrio for a visit to the offices and to visit the workplace of their parents and family members. For children, a prize competition was organized asking them to describe the work of their parents. The most original works, judged by a jury, were awarded.



### CRAEM and CRASM: an activity-packed 2014

In 2014, the CRAEM organized 135 cultural, tourism, sport and recreation initiatives that were attended by about 1,400 members. The four hotels and holiday resorts where there are CRAEM structures recorded the presence of more than 33,000 people and 157 children that attended the summer camps. All members (about 650) have received a voucher for purchases of books at the "Women's Day" and there were more than 1,000 orders of products (food, cosmetics etc.) through online sales from the website of the Club. Members who have used the health contributions or insurance "Insieme Salute" totalled 1,250 and more than 1,100 benefited from school, sports, cultural and sustainable mobility contributions.

Overall about 84% of members have used the services offered by CRAEM at least once.

Also in 2014 **CRASM** organized outings, trips and vacation stays, participation in exhibitions and musical events, parties, English language courses and study holidays abroad for older children, and holiday camps and trips with nature or English-language themes for younger children. CRASM has 15 thematic groups that organize cultural outings, sports tournaments, tennis, ski and computer lessons, and loans of movies and music CDs.



#### "Volunteers for a day" campaign

As part of the initiatives taken to strengthen collaboration between employees and the local community, also in 2014 A2A joined the campaign "Volunteer for a Day", created by the Sodalitas Foundation and sponsored by the Municipality of Milan, promoting through the corporate communication channels the participation of employees in volunteer for a day dedicated to more than 150 non-profit **associations** of the territory and province of Milan.

### 5.1.6 | Tables: A2A people figures

Figure 116 | Personnel by category and type of contract

		20	12		2013			2014				
	Men	Women	Total	%	Men	Women	Total	%	Men	Women	Total	%
Senior managers	111	21	132	1.5%	136	25	161	1.6%	128	26	154	1.6%
Middle-managers	293	90	383	4.3%	358	115	473	4.8%	357	114	471	4.9%
White-collar workers	2,577	1,076	3,653	41.0%	3,050	1,118	4,168	41.9%	2,927	1,095	4,022	41.8%
Blue-collar workers	4,400	202	4,602	51.7%	4,777	205	4,982	50.1%	4,600	199	4,799	49.9%
Permanent workers	7,381	1,389	8,770	98.5%	8,321	1,463	9,784	98.4%	8,012	1,434	9,446	98.3%
Fixed-term contract workers hired	74	24	98	1.1%	129	27	156	1.6%	134	31	165	1.7%
Job training and work entry contracts	24	7	31	0.3%	3	-	3	0.0%	-	-	-	0.0%
Fixed-term contract workers	98	31	129	1.4%	132	27	159	1.6%	134	31	165	1.7%
Contract workers abroad	1	1	2	0.0%	1	1	2	0.0%	3	-	3	0.0%
TOTAL	7,480	1,421	8,901	100.0%	8,454	1,491	9,945	100.0%	8,149	1,465	9,614	100.0%
Workers with part-time contract	94	259	353	4.0%	98	253	351	3.5%	110	249	359	3.7%
Workers with full-time contract	7,386	1,162	8,548	96.0%	8,356	1,238	9,594	96.5%	8,039	1,216	9,255	96.3%
Employees with atypical contracts (Outsourced/Interns/Staff)	76	42	118	100.0%	64	65	129	100.0%	144	44	188	100.0%

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

A2A people

The customers and public served Suppliers Institutions and local communities

Statement of compliance

Figure 117 | Personnel divided by age range

			20	)12					20	13					20	14		
AGE RANGE	Senior managers	Middle- managers	White- collar workers	Blue collar workers	TOTAL	%	Senior managers	Middle- managers	White- collar workers	Blue collar workers	TOTAL	%	Senior managers	Middle- managers	White- collar workers	Blue collar workers	TOTAL	%
Up to 30 years	0	0	299	458	757	8.5%	0	1	266	493	760	7.6%	0	1	263	410	674	7.0%
From 31 to 40	14	69	708	1,058	1,849	20.8%	12	83	742	1,078	1,915	19.3%	9	79	700	995	1,783	18.5%
From 41 to 50	62	159	1,557	1,830	3,608	40.5%	75	183	1,621	1,900	3,779	38.0%	68	185	1,513	1,853	3,619	37.6%
Over 50	59	157	1,167	1,304	2,687	30.2%	76	207	1,581	1,627	3,491	35.1%	78	207	1,587	1,666	3,538	36.8%
TOTAL	135	385	3,731	4,650	8,901	100.0%	163	474	4,210	5,098	9,945	100.0%	155	472	4,063	4,924	9,614	100.0%

Figure 118 | Personnel by seniority in the Group

			20	)12					20	13					20	14		
LENGTH OF SERVICE	Senior managers	Middle- managers	White- collar workers	Blue collar workers	TOTAL	%	Senior managers	Middle- managers	White- collar workers	Blue collar workers	TOTAL	%	Senior managers	Middle- managers	White- collar workers	Blue collar workers	TOTAL	%
Up to 10 years	67	106	1,064	2,066	3,303	37.1%	68	149	1,081	2,281	3,579	36.0%	60	143	1,082	2,083	3,368	35.0%
From 11 to 20	34	66	734	1,052	1,886	21.2%	51	69	613	871	1,604	16.1%	49	83	626	955	1,713	17.8%
From 21 to 30	28	159	1,425	1,240	2,852	32.0%	37	185	1,797	1,568	3,587	36.1%	38	173	1,655	1,434	3,300	34.3%
Over 30	6	54	508	292	860	9.7%	7	71	719	378	1,175	11.8%	8	73	700	452	1,233	12.8%
TOTAL	135	385	3,731	4,650	8,901	100.0%	163	474	4,210	5,098	9,945	100.0%	155	472	4,063	4,924	9,614	100.0%

Figure 119 | Personnel by workplace

REGION		20	12			20	13			20	14	
REGION	Men	Women	Total	%	Men	Women	Total	%	Men	Women	Total	%
Abruzzo	52	6	58	0.7%	52	5	57	0.6%	52	6	58	0.6%
Calabria	86	2	88	1.0%	83	1	84	0.8%	83	1	84	0.9%
Campania	193	13	206	2.3%	194	15	209	2.1%	194	15	209	2.2%
Emilia Romagna	8	3	11	0.1%	51	7	58	0.6%	49	7	56	0.6%
Friuli Venezia Giulia	145	4	149	1.7%	209	4	213	2.1%	194	4	198	2.1%
Lazio	1	2	3	0.0%	2	2	4	0.0%	2	2	4	0.0%
Lombardy	6,960	1,376	8,336	93.7%	7,504	1,432	8,936	89.9%	7,264	1,407	8,671	90.2%
Piedmont	23	10	33	0.4%	62	13	75	0.8%	64	13	77	0.8%
Puglia	0	0	0	0	81	3	84	0.8%	68	3	71	0.7%
Sicily	0	0	0	0	206	4	210	2.1%	169	4	173	1.8%
Veneto	11	4	15	0.2%	9	4	13	0.1%	7	3	10	0.1%
Overseas	1	1	2	0.0%	1	1	2	0.0%	3	0	3	0.0%
TOTAL	7,480	1,421	8,901	100.0%	8,454	1,491	9,945	100.0%	8,149	1,465	9,614	100.0%

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

### A<sub>2</sub>A people

The customers and public served Suppliers Institutions and local communities

Statement of compliance

Figure 120 | Personnel by educational qualification

EDUCATION QUALIFICATION		20	12			20	13			20	14	
EDUCATION QUALIFICATION	Men	Women	Total	%	Men	Women	Total	%	Men	Women	Total	%
University degree	536	320	856	9.6%	590	343	933	9.4%	620	369	989	10.3%
High school diploma	2,619	729	3,348	37.6%	3,286	775	4,061	40.8%	3,001	738	3,739	38.9%
Professional qualification	577	91	668	7.5%	595	91	686	6.9%	712	92	804	8.4%
Compulsory schooling	3,748	281	4,029	45.3%	3,983	282	4,265	42.9%	3,816	266	4,082	42.5%
TOTAL	7,480	1,421	8,901	100.0%	8,454	1,491	9,945	100.0%	8,149	1,465	9,614	100.0%

Figure 121 | Hires during the year by age, gender and geographical area\*

ITALY		2012			2013			2014	
Age range	Men	Women	Total	Men	Women	Total	Men	Women	Total
Permanent workers									
Up to 30 years	54	13	67	27	3	30	14	10	24
From 31 to 40	36	14	50	51	7	58	18	10	28
From 41 to 50	28	7	35	102	1	103	26	3	29
Over 50	7	0	7	80	1	81	15	0	15
Fixed-term contract workers									
Up to 30 years	165	30	195	91	15	106	85	19	104
From 31 to 40	14	1	15	82	6	88	64	5	69
From 41 to 50	9	3	12	41	6	47	31	4	35
Over 50	4	0	4	14	1	15	9	0	9
TOTAL	317	68	385	488	40	528	262	51	313
Percentage of hires of total employees	4.2%	4.8%	4.3%	5.8%	2.7%	5.3%	3.2%	3.5%	3.3%

<sup>\*</sup>Abroad in 2012-2014, two men under the age of 30 were hired with fixed-term contract. The first was hired in 2012 and the second in 2014.

Figure 122 | Training provided by position

	20	012	20	013	20	14
	Number of hours	Average hours of annual training per employee	Number of hours	Average hours of annual training per employee	Number of hours	Average hours of annual training per employee
Senior managers	1,651	12.2	7,377	45·3*	2,387	15.4
Middle-managers	10,464	27.2	22,452	47.4*	13,110	27.8
White-collar workers	71,980	19.3	105,171	25.O*	76,752	18.9
Blue-collar workers	39,308	8.5	84,541	16.6*	51,473	10.5
TOTAL	123,403	13.9	219,540	22.1*	143,722	14.9

<sup>\*</sup>Data recalculated.

Figure 123 | Training provided by gender

	20	012	20	013	20	14
	Number of hours	Average hours of annual training per employee	Number of hours	Average hours of annual training per employee	Number of hours	Average hours of annual training per employee
Men	101,553	13.58	197,677	23.38	124,154	15.24
Women	21,850	15.38	21,864	14.66	19,568	13.36

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

### A<sub>2</sub>A people

The customers and public served Suppliers Institutions and local communities

Statement of compliance

Figure 124 | Training provided by course content

COURCE	2	012	2	013	2	014
COURSE	Number attendances*	Number of hours	Number attendances*	Number of hours	Number attendances*	Number of hours
Environment	466	2,233	1,890	9,003	1,073	4,222
Administrative	1,292	4,730	1,968	3,463	757	1,825
IT	2,874	20,170	1,559	7,712	2,426	11,903
Quality	232	382	11	15	8	15
Security	12,065	57,781	28,133	136,795	18,014	79,282
Technical	2,108	13,810	4,702	37,293	3,949	17,224
Training with high professional content	8	285	562	6,740	98	713
Managerial Training	1,421	17,078	1,583	11,449	3,172	23,009
Foreign languages	277	6,934	422	7,071	275	5,529
TOTAL	20,742	123,403	40,830	219,540	29,772	143,722

 $<sup>{}^*</sup> People \, may \, be \, counted \, more \, than \, once \, depending \, on \, the \, number \, of \, courses \, they \, have \, attended.$ 

Figure 125 | Separations during the year by age range\*

			2012					2013					2014		
ITALY	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	152	152	0	0	0	60	60	0	0	0	99	99
Voluntary termination	17	17	14	34	82	15	24	6	32	77	10	17	6	20	53
Deceased	0	2	5	9	16	0	1	4	8	13	0	0	3	11	14
Dismissals	6	6	4	3	19	5	4	8	61	78	6	8	35	259	308
Other (ex. fixed-term contract)	64	52	33	7	156	89	34	39	104	266	95	49	19	10	173
TOTAL	87	77	56	205	425	109	63	57	265	494	111	74	63	399	647
Turnoverrate	11.49%	4.17%	1.55%	7.63%	4.78%	14.34%	3.29%	1.51%	7.59%	4.97%	16.49%	4.15%	1.74%	11.28%	6.73%

<sup>\*</sup> Abroad, in the 2012-2014 three-year period, there were two outgoing employees aged under 30. The first in 2013 and second in 2014.

Figure 126 | Separations during the year by gender\*

ITALY		2012			2013			2014	
ITALY	Men	Women	Total	Men	Women	Total	Men	Women	Total
Retirement	141	11	152	44	16	60	91	8	99
Voluntary termination	68	14	82	65	12	77	50	3	53
Deceased	16	0	16	12	1	13	14	0	14
Dismissals	18	1	19	64	14	78	254	54	308
Other (ex. fixed-term contract)	134	22	156	247	19	266	161	12	173
TOTAL	377	48	425	432	62	494	570	77	647
Turnover rate	5.04%	3.38%	4.78%	5.11%	4.16%	4.97%	6.99%	5.26%	6.73%

<sup>\*</sup> Abroad, in the 2012-2014 three-year period, there were two outgoing employees aged under 30. The first in 2013 and second in 2014.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

#### A<sub>2</sub>A people

The customers and public served Suppliers Institutions and local communities

Statement of compliance

### Figure 127 | Accident Data

	E	nergy sect	or	Envi	ronment se	ector
	2012	2013	2014	2012	2013	2014
No. of accidents (excluding while travelling)	67	90	77	512	521	453
No. days absence (excluding while travelling)	1,931	2,347	2,111	11,385	11,965	10,249
Average duration (days)	29	26	27.4	22	23	22.6
Frequency Index (FI)	8.9	10.4	9.3	71.9	69.4	62.4
Severity index (SI)	0.3	0.3	0.3	1.6	1.6	1.4
Occurrence Index (OI)	14.9	16.8	14.9	116.3	111.7	98.6
Accidents while travelling	57	42	44	59	76	58

When calculating the indices only occupational 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 recognized as occupationally related.

 $Occupational \ accidents \ also \ include \ those \ which \ occur \ due \ to \ a \ simple \ transfer, with \ or \ without \ the \ use of \ a \ vehicle.$ 

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

FI = frequency index (no. accidents x 1,000,000: hours worked)

SI = severity index (no. days absence x 1,000: hours worked)

OI = occurrence index (no. of accidents x 1,000: workforce)

Accidents while travelling: accidents involving workers on the way from home to work and vice versa (however outside of the workplace).

Figure 128 | Absenteeism: working days lost by gender

	20	012	20	013	20	014
	Men	Women	Men	Women	Men	Women
Illness	83,247	15,539	92,361	17,748	92,196	17,752
Maternity (compulsory, optional, breast feeding)	2,522	13,831	2,226	12,417	2,165	11,450
Trade union leave	10,895	748	13,143	825	11,320	654
Paid leave (medical visits, etc.)	3,246	1,118	4,966	1,391	3,287	1,167
Unpaid leave	5,032	2,037	5,183	1,642	4,990	1,830
Other absences (wedding leave, study leave, etc.)	42,526	6,742	43,903	7,400	47,781	6,982
Company strikes	0	0	108	2	78	2
National strikes	3,170	353	2,706	272	1,463	161
Accidents	14,421	1,737	14,635	1,553	14,544	1,716
Solidarity contract	0	0	931	170	8,997	1,051
Redundancy	0	0	3,240	521	3,907	318
TOTAL	165,059	42,105	183,401	43,941	190,728	43,083

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

### A<sub>2</sub>A people

The customers and public served Suppliers Institutions and local communities

Statement of compliance

Figure 129 | Absenteeism

		2012			2013			2014	
	Number days	N° of days %	Working days per employee	Number days	N° of days %	Working days per employee	Number days	N° of days %	Working days per employee
Illness	98,786	4.4%	11.0	110,108	4.4%	11.0	109,949	4.6%	11.2
Maternity leave (compulsory, optional, breast feeding)	16,353	0.7%	1.8	14,642	0.6%	1.5	13,615	0.6%	1.4
Trade union leave	11,643	0.5%	1.3	13,969	0.6%	1.4	11,974	0.5%	1.2
Paid leave (medical visits, etc.)	4,364	0.2%	0.5	6,358	0.3%	0.6	4,454	0.2%	0.5
Unpaid leave	7,069	0.3%	0.8	6,825	0.3%	0.7	6,820	0.3%	0.7
Other absences (wedding leave, study leave, etc.)	49,268	2.2%	5.5	51,303	2.0%	5.1	54,763	2.3%	5.6
Company strikes	0	0.0%	0	110	0.0%	0.0	105	0.0%	0.0
National strikes	3,523	0.2%	0.4	2,978	0.1%	0.3	1,458	0.1%	0.2
Accidents	16,158	0.7%	1.8	16,188	0.6%	1.6	16,260	0.7%	1.7
Solidarity contract	0	0.0%	0	1,101	0.0%	0.1	10,048	0.4%	1.0
Redundancy	0	0.0%	0	3,761	0.1%	0.4	4,225	0.2%	0.4
TOTAL	207,165	9.3%	23.1	227,343	9.0%	22.7	233,670	9.7%	23.9
		2012			2013			2014	
Average annual number of employees		8,974			10,013			9,789	
Total working days		2,234,151			2,516,085			2,413,114	
Total days worked		14,634,946		15,981,607			15,578,853		
Days of absence per person as a percentage of working days		9.3%		9.0%			9.7%		
Average annual days absence per employee		23.09			22.71		23.88		

### Figure 130 | Rate of days lost\* (total number of days lost for occupational accidents or illness as a percentage of the total hours worked by the workforce in the year)

	2012		2013		2014	
	Italy	Abroad	Italy	Abroad	Italy	Abroad
Hours lost for occupational illness	0	0	0	0	0	0
Hours lost for accidents	105,109	0	104,545	0	105,627	0
Rate of days lost	0.72%	0.0%	0.65%	0.0%	0.68%	0.0%

<sup>\*</sup> Days lost means days on which work cannot be performed due to an occupational accident or occupational illness. These are not counted if there is a partial return to work.

### Figure 131 | Absence rate (days lost for absence as a percentage of the total days worked by the workforce in the year)

	2012		2013		2014	
	Italy	Abroad	Italy	Abroad	Italy	Abroad
Total days absence	137,180	0	150,178	0	146,706	0
Absence rate	6.14%	0.0%	5.97%	0.0%	6.08%	0.0%

### Figure 132 | Return to work and retention rate after parental leave

	2012		2012 > 2013		2013		2013 > 2014		2014	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Parental leave taken	194	283	0	0	179	257	0	0	182	275
of whom returned to work	187	264	7	23	167	234	10	16	169	260

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

### A<sub>2</sub>A people

The customers and public served Suppliers Institutions and local communities

Statement of compliance

Figure 133 | Workers by type of employment contract

	20	012	20	013	20	014
	No.	%	No.	%	No.	%
Managerial contract	135	1.5%	163	1.6%	155	1.6%
Electricity-sector contract	2,805	31.5%	3,559	35.8%	3,333	34.7%
Gas and water sectors contract	1,292	14.5%	1,300	13.1%	1,271	13.2%
Commercial contract	272	3.1%	279	2.8%	283	2.9%
Urban sanitation contract	4,030	45.3%	4,087	41.1%	4,053	42.2%
FISE contract	176	2.0%	390	3.9%	360	3.7%
Chemical-sector contract	169	1.9%	166	1.7%	159	1.7%
Other contracts	20	0.2%	0	0.0%	0	0.0%
Foreign contracts	2	0.0%	1	0.0%	0	0.0%
TOTAL	8,901	100.0%	9,945	100.0%	9,614	100.0%

Figure 134 | Union registrations

	2012		20	013	20	014
	No.	%	No.	%	No.	%
Italy - members of federal organizations	3,677	41.3%	4,085	41.1%	3,738	38.9%
Italy - members of other trade union organizations	1,282	14.4%	1,381	13.9%	1,265	13.2%
Employees not members of trade unions	3,940	44.3%	4,477	45.0%	4,608	47.9%
Abroad - members of other trade union organizations	0	0.0%	0	0.0%	0	0.0%
Abroad - employees not members of trade unions	2	0.0%	2	0.0%	3	0.0%
TOTAL	8,901	100.0%	9,945	100.0%	9,614	100.0%

### Figure 135 | Strike hours

	20	012	20	013	2014		
	Total strike Strike hours hours per person*		Total strike Strike hours hours per person*		Total strike hours	Strike hours per person*	
Italy	18.769	2.09	19,197	1.92	10,848	1.11	
Foreign	0	0	0	0	0	0	

<sup>\*</sup>The per person hours are calculated on the basis of the average workforce.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

### A<sub>2</sub>A people

The customers and public served Suppliers Institutions and local communities

Statement of compliance

# Identity Card At December 31, 2014

# 5.2 | Customers and public served



A2A Energia always at the top for customer satisfaction



227,000 adhesions to electronic bill bollett@mail



Chiara2a Rewards Catalogue introduced: 147,191 egistered with the program, with an increase of 23.5% compared to the previous year.



Service Charter of District Heating drafted, shared and realized with 17 Consumer Associations



50% of differentiated collection reached in the municipality of Milan

 $A2A operates \ mainly \ in \ Lombardy \ but \ also \ in \ other \ Italian \ Regions \ and \ in \ a \ number \ of \ European \ countries.$  For further information on the various business sectors, see Chapter 1, page 14.

### Figure 136 | Customer distribution by sector

A2A GROUP	2012	2013	2014
Electricity customers (supply points)	1,007,978	990,098	979,649
Electricity sold¹ (GWh)	23,664	24,519	28,269
Gas customers (supply points)	1,171,722	1,140,112	1,114,972
Gas sold¹ (millions of cubic meters)	3,891	2,465	3,077
Water customers (aqueduct service users)	278,366	285,530	280,092
Water supplied to users (millions of cubic meters)	74	68	65
District heating customers (users served)	23,511	23,800	24,242
Heat sold (GWht)	2,217	2,382	1,951
Municipalities served for environmental sanitation	89	88	93
Waste collected <sup>2</sup> (thousands of tons)	1,759	1,543	1,489
Electricity network (km)	13,052	13,254	13,837
Gas networks (km)	7,980	7,838	7,627

<sup>&</sup>lt;sup>1</sup> Sales to wholesale and retail customers.



All the Group data may be found in the tables on pages 185 to 195

<sup>&</sup>lt;sup>2</sup> Municipal waste collected for the environmental sanitation service and special waste collected through paid services by Amsa and Aprica.

### Material issues for "customer" stakeholders

## ISSUE 14 - MANAGEMENT OF CATEGORIES OF VULNERABLE CUSTOMERS

A2A guarantees all citizens access to the services offered by the Group companies, regardless of cultural, physical, economic or social factors, so that they can take advantage of the opportunities and proposals that the commercial structures offer, as well as accurate information on all services managed. The criterion of full accessibility translates into ensuring impartial treatment to all customers, current or potential, and conditions of protection of vulnerable customers as required by regulations, so that everyone can benefit from the services overcoming cultural, language, age, disability, health or other barriers.

## ISSUE 20 - EFFECTIVE MANAGEMENT OF ROADWORKS FOR DIGGING AND PIPE-LAYING

For A2A, this issue is of great importance as it has implications of social responsibility and safety towards workers, internal and external (contractors), and citizens concerned with the sites. The protection of the people involved in the works, in the broadest sense, is one of the cornerstones of the mode of operation of the Group companies, as well as the commitment to minimize the impact of the works on the quality of life of citizens.

## ISSUE 21 - FAIRNESS AND TRANSPARENCY IN CUSTOMER RELATIONS

Fairness and transparency towards customers and citizens served are always among the cornerstones of the A2A Group, essential to building and maintaining a lasting relationship that is expressed through multiple contact channels. For several years, the A2A Group has been active against the growing phenomenon of unfair trade practices, performed even to the detriment of its own customers, by other energy companies and related agencies.

## ISSUE 22 - QUALITY OF SERVICES PROVIDED AND ATTENTION TO CUSTOMERS

The attention to quality of service has always been in first place in the choices and strategies of the companies of the A2A Group, from the acquisition phase of customers up to the contract and subsequent management of any claims. The basis of this attention is the awareness that the quality of the service is an essential element for building and maintaining a lasting and consolidated relationship with customers.

### **ISSUE 23 - CUSTOMER RESPONSIBILITY**

The Group has always been committed to promoting and supporting energy efficiency initiatives, increasing differentiated collection and environmental education, aiming to spread a growing concern for the environment and the correct use of resources.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

A2A people

The customers and public served

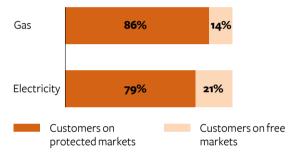
Suppliers
Institutions and local communities

Statement of compliance

### 5.2.1 | Selling electricity and gas

For the sale of electricity and gas, A2A operates through the subsidiaries **A2A Energia and Aspem Energia,** which operate primarily in northern Italy, especially in the region of Lombardy.

Figure 137 | Percentage of the number of supply contracts by type of market



Also in 2014, A2A Energia launched an intensive **commercial campaign** aimed at strengthening its identity as a company leader in the Lombardy region, by installing billboards in the regional capital cities, radio announcements, video clips on local and web broadcasters, and advertisements in the main newspapers.

Among the most successful campaigns, is that relating to the offer "Casa2a" with references to popular films among the general public. The offer proposed the fixed price for two years, both for electricity and for gas, in addition to a portion of free electricity, 1 year at the movies for 2 for the price of one and 2 years of free emergency insurance for the home.



A2A pays great attention to the completeness and ease of understanding of its contract forms, which are promptly updated in the event of legislative changes, with the collaboration of Consumers' Associations, as happened in 2013 with Altroconsumo for the contracts for domestic electricity customers.

Among the amendments introduced in 2014, the unification shall be recalled, under the company logo of A2A Energia, of the trademarks of the companies acquired after the establishment of the A2A Group (Asmea, Basomniservizi, Tidonenergie), which had been kept in business for some years to facilitate a greater recognition by customers. To further protect customers, the collection of privacy consent on individual contact channels has been introduced in the contract forms to allow customers to choose via which channels (fixed line, mobile phone, e-mail, regular mail, etc.) they wish to receive the company's promotional and commercial communications and/or via which method (phone calls from business consultants, SMS, etc.) they wish to be contacted.

 $Finally, among the \,new \,regulations \,that \,have \,generated$ 

changes, the RID form has been replaced for direct debit payment with the new SEPA mandate, under international banking regulations that came into force on February 1, 2014. To facilitate reading of the bills, the information details of which are imposed at national level by AEEGSI (Authority for Electricity, Gas and Water System) legislation, A2A Energia has created a "Guide to Reading the Bill" available, also in brief and multilingual version, on the company website.

The "Guide to reading the bill" is available on the website www.a2aenergia.eu under Info Point

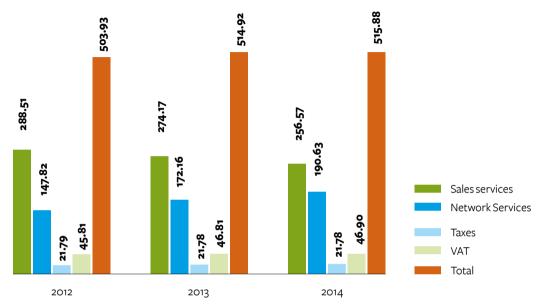
The main tariff components contained in the bill are:

- Sales Service, costs incurred to purchase and sell the electricity and gas supplied, split into a fixed portion (charged regardless of use) and an energy portion (charged depending on the amount of energy used);
- Network Service, costs incurred for transportation
  of energy to the meter, in turn split into a fixed portion
  (charged regardless of use) and a variable portion
  (charged depending on the amount of energy
  transported through the network);
- Taxes, this item includes a tax on use and any charges other than supply or not directly connected to the energy supplied (e.g. labor).
- **VAT**, calculated on all the bill items to which it is applicable, including excise taxes.

The graphs below show the trend in the last three years of the various cost components that make up the bill. Amounts shown are for a "typical" family with average consumption. For electricity, the Authority took as an example a resident domestic use contract, having 3 kW of available power and an average annual use of 2,700 kWh. For gas, domestic use with independent heating in the north-east and an annual use of 1,400 cm was taken as the example.



Figure 138 | Cost trends in the electricity bill for a typical household  $(\mathbb{\epsilon})$ 





Introduction

The A<sub>2</sub>A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

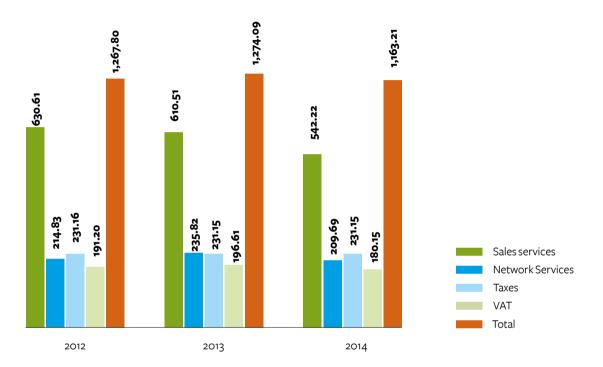
A2A people

The customers and public served

Suppliers
Institutions and local communities

Statement of compliance

Figure 139 | Cost trends in the gas bill for a typical household (€)



The trend of the average costs observed in the last three years shows a slight increase for the protected electric market, mainly due to the increase in network services, instead against a continued decline in the component related to sales services for both services.

## For all supplies of electricity and gas A2A issued in 2014 about 11 million bills.

At the end of 2014, the activation of the **online bill** achieved **227,000 registrations**, with an increase of

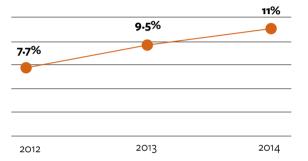
16% compared to the previous year.

The increase has been possible also thanks to a series of initiatives to support the promotion of the service, including:

- telephone campaign (January/February 2014);
- promotion of the service on the envelopes containing the bills (February/March 2014);
- direct e-mail marketing of simplified activation, without the needfor registration at the online counter, for eligible customers (March-September-December 2014);

• promotion of the service in the bill (for eligible customers) through QR Code (ongoing from November 2014).

Figure 140 | Online bill penetration



Thank to bollett@mail about 51 15-m high-medium-sized trees were saved in 2014 calculating that a single tree produces about 80,000 sheets'. Furthermore, it eliminated the pollution caused by the delivery trucks that travel to ensure the production and distribution of over 1,100,000 documents.

For customers who have not joined the bollett@ mail service, A2A Energia and Aspem Energia use a "certified" means of delivery of paper documents, thanks to a satellite system that is able to record the date, time and place of the delivery of each individual bill or other commercial document. This service has considerably reduced the number of complaints about the non-delivery of documents as it monitors every delivery step by step.

<sup>&</sup>lt;sup>1</sup>Source: www.focus.it/ambiente/natura/Quanti\_fogli\_di\_carta\_si\_ricavano\_da\_un\_albero281217\_1147\_C39.aspx

The number of documents (bills, contracts, letters) delivered by certified means reached 92.1% as a proportion of the total number of bills sent by post in 2014, with just 6.1% delivered late.

A2A customers can choose to pay their bills in a whole variety of different ways.

Figure 141 | Methods of payment used by customers\*

	A2A Energia	Aspem Energia*
SEPA direct debit	57.5%	56%
Pre-printed post office giro forms	23%	25%
Bank transfers and pre-printed bank giro	9%	16%
Sisal	6%	0%
Counters	2%	0%
Blank forms	0.5%	3%
Other (GDO, Lottomatica,)	2%	0%

<sup>\*</sup> Aspem Energia does not provide the possibility of paying through Sisal or Lottomatica, at the counter or via the portal.

# Channels of dialogue and assistance to electricity and gas customers

Customers can access services provided by A2A Energia and Aspem Energia through different ways:

• call center with operators at freephone numbers during office hours, with a system of automatic interactive response (IVR), active round the clock;

- branches available to the public throughout the local area;
- online counters at the sites www.a2aenergia.eu and www.aspemenergia.it accessible round the clock;
- supplier networks and specialized retailers;
- through communication by mail/fax/e-mail.

For further information on references and phonenumbersrefertotheInfoPointsection at www.azaenergia.eu; or Customer Area section at www.aspemenergia.it

The **call center** service is provided by employees in the structures of the company in Lombardy. This choice allows the direct consultation by operators of business information systems and allows processing almost all of the requests, reducing the waiting time of customers and avoiding the handover of the claim to other operators. The staff of the contact channels is guaranteed continuous and constant training for both regulatory and managerial updates.

In 2014, A2A Energia managed a total of nearly **2 million calls**, with an average waiting time of 86 seconds (6 seconds less than in 2013), including the time to answer to the navigation menu. For Aspem Energia, the waiting time recorded was 75 seconds.

Both values meet the minimum standards set by the AEEGSI.

### 51 trees

saved thanks to bollett@mail



Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

## Social responsibility

A2A people

## The customers and public served

Suppliers
Institutions and local communities

Statement of compliance

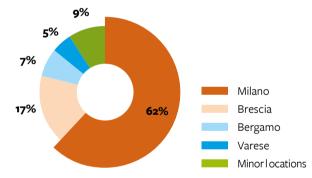


Figure 142 | Call Center services quality level\*

	AEEGSI	A2A ENERGIA			ASPEM ENERGIA		
	Target	2012	2013	2014	2012	2013	2014
Percentage of successful calls	>=80%	98%	96%	98.5%	90.40%	94.5%	96.0%
Accessibility of the lines and the service (free line time compared to the time when the operator is present)	>=80%	100%	100%	100%	99.6%	100%	100%
Average waiting time on the telephone (minutes and seconds)	240"	91"	92"	86"	36"	35"	75"

<sup>\*</sup> Aspem Energia is not required to monitor the data as it has fewer than 50,000 customers.

Figure 143 | Customers served at the branches by province



To be closer to its customers A2A Energia maintains

several branches operating in Lombardy: a branch is

present in the city of Milan, 4 are located in Brescia

and province, 5 serve customers in Bergamo and

neighbouring areas. Aspem Energia has a branch in the

city of Varese. A2A Energia and Aspem Energia have also chosen to focus on the digital channel as an additional

mode of contact between customer and company. The increase and the optimization of the services offered

In 2014 the commercial branches of the Group welcomed around 315,000 visitors<sup>2</sup>, in line with the figure of the previous year, with an average waiting time of about 10 minutes for A2A Energia (10 minutes less than in 2013) and about 20 minutes for Aspem Energia (2 minutes less). Among the claims managed, there was a progressive increase in requests for payment rescheduling of the bills by customers.

**315,000 visitors** 

to the commercial branches in 2014

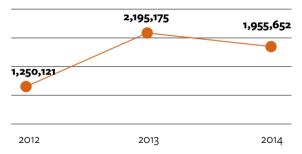
162 2014 Sustainability Report

<sup>&</sup>lt;sup>2</sup> Includes the bill payment service at the Milan branch.

through this channel have been accompanied, in particular for the **portal A2A Energia**, by a significant improvement, both functional and graphic.

During the first part of the year, the web portal was involved in many activities: graphic restyling (with relative simplification of navigation and access to the reserved area of the Online Counter), launch of the new service Call Me Back (through which the customer can specify the time period preferred to be contacted by phone and receive information about the commercial offers of the company), launch of the pilot project of the CHAT service (information support online in real time for the subscription of commercial offers), creation of the low-cost Guaranteed Price Web+ Gas online offer.

Figure 144 | Visits to the commercial websites\*



<sup>\*</sup> Number of individual sessions started by all website visitors.

The efforts made in the development and optimization of this channel, including the elimination of the portals of the different trademarks and unification under the one website A2A Energia, in 2014 led to having almost 2 million sessions initiated, while for Aspem Energia there were over 20,000 sessions. In terms of single pages viewed, the first site totalled 9,323,456 views (with

predominance of those related to Online Counter and Info Point), while the latter recorded 46,366 (with Customer Area and Homepage as the most viewed pages).

Through the **Online Counter**, accessible from the site by personal credentials, customers can conclude a contract, change personal data, view their bills, request duplicate copies. In March 2014, an additional feature was added: the possibility to request from the personal area direct debit of electricity and gas bills from personal bank accounts. For large customers we provide additional services, including the possibility to view historical consumption trends.

Customers registered with the Online Counter of A2A Energia at the end of 2014 amounted to 21% of the customer base, up 10% over the previous year.

For some time, there has also been a web service for communication of **meter readings** from customers (as an alternative to telephone communication or via SMS): a method in constant growth, which in 2014 came to represent 43% of total self-readings recorded annually. **In managing large customers and SME**, A2A Energia and Aspem Energia have a direct sales network that handles all aspects of customer relations, from contract negotiation to post-sales services.

# Activities for electricity and gas customers for a responsible service

A2A is particularly committed to ensuring customers with a service based on maximum transparency and fairness.

### A2A against unfair commercial practices

The detection of commercial actions implemented by competitors against customers of A2A Energia through the use of false and misleading information to consumers, in order to achieve the signing of supply contracts without the full knowledge of the customer, led the company to prompt the Consumers' Associations and the AEEGSI to ensure close monitoring of the phenomenon and the implementation of actions to prevent misconduct. In November 2011, the establishment agreement was signed of the Observatory on unfair commercial **practices**, designed to protect and inform customers, through dedicated campaigns and initiatives, on the spread of unfair business practices and potential resulting costs. On March 2013, A2A Energia and the Consumer Associations recognized by the Region of Lombardy signed an important Self-Regulation Protocol to prevent unfair commercial practices and to protect the consumer. Under this Protocol more stringent rules have been introduced with respect to the AEEGSI legislation, compensation for customers and penalties for unfair trading partners, extension of terms for the right to reconsider and a Joint Control Committee was set up, composed of three members designated by the Consumers' Associations and three by A2A, which oversees compliance with the rules.

Introduction

The A<sub>2</sub>A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

A2A people

The customers and public served

Suppliers
Institutions and local communities

Statement of compliance

## **(**\$\sqrt{)}

### **Toll-free number for fraud prevention**

To report unfair practices and obtain information and legal assistance, victims of misleading or aggressive conduct from suppliers of electricity and gas can call the **toll free anti-fraud number 800.912.760**, from Monday to Friday from 9:00 am to 3:00 pm. In 2014, there were 1,958 calls (664 in 2013), of which 811 related to unfair trade practices, in addition to 59 reports received by A2A Energia through its own channels.



## Joint conciliation: an additional law for A2A customers

The joint settlement service has been available since February 2009, to settle disputes with consumers quickly and free of charge, thanks in part to the protocol signed by A2A Energia and 17 consumer associations, and which was extended to Aspem Energia in 2012. A similar protocol was signed in 2011 with the Business Federations to resolve disputes with small and medium businesses.

For customers, access to the settlement procedure is free of charge and activation must be through one of the Consumers' Associations or Business Federations that participated in the agreements.

In 2014, A2A Energia received 34 new joint settlement requests from domestic customers; there were 16 cases continuing from 2013, for a total of 50 cases managed, of which 3 being defined. 77% of claims were concluded positively and 23% with negative results (no agreement). Claims concluded positively related to problems concerning the measurement of consumption for 77%, contract changes for 19% and billing problems for 4%. Aspem Energia did not received requests for settlement in 2014.

### **Energy customer settlement service**

The energy customer settlement service was established by AEEGSI in April 2013, and is an additional tool available to consumers for simple and swift resolution of any disputes with providers. The service can be activated directly by consumers or by the Consumers' Associations and provides for the intervention of a conciliator specially trained by the AEEGSI, who helps the parties reach an agreement without resorting to the courts. It is managed by the Single Purchase, is voluntary, free of charge and takes place entirely online, in accordance with the

European legislation on energy and alternative dispute resolution. A2A responded to AEEGSI's request that it take part in the service, adopting a selective approach (adhesion from time to time to the individual requests). In 2014, 5 claims were sent to A2A, of which 2 closed with agreement and 3 not accepted.

# 5.2.1.2 | Quality of services provided and attention to electricity and gas customers

A2A Energia places utmost importance on the quality and safety of the service and also in 2014 achieved the **ISO9001:2008 certification** by an external entity. It also achieved for the first time the safety certification under **OHSAS18001:2007**.

The adoption of a Quality, Environment and Safety Management System applies to all processes managed by A2A Energia, also in relation to different levels of risk and all the main locations where the company operates.

The company, as part of the Quality and Safety Management System, sets measurable improvement targets, which are regularly monitored. The following table shows the results of 2014 compared to some goals set and new goals for the year 2015.

As part of the Quality and Safety Management System A2A Energia has adopted a monitoring procedure of the so-called "non-conformities", which extends to the solution of the problem and, in some cases,

provides for the implementation of corrective and/or preventive actions of possible future events, with a view to continuous attention to service. Also in 2014, the company did not receive penalties from the AEEGSI or national or sub-national inspection Bodies for situations of non-compliance with laws or regulations regarding supply and related services. Moreover, also as part of the marketing activities, no abnormalities or incidents were reported that might represent cases of non-conformity with respect to regulations or voluntary codes, with reference to promotions, sponsorships and notifications.





Figure 145 | Objectives monitored as part of the Quality and Safety Management System of A2A Energia

INDICATOR	Objective 2014	Result achieved in 2014	New objective 2015
Degree of accessibility to the call-center	>97%	100%	>98%
Percentage of calls processed (net of abandoned calls)	>97%	98.7%	-
Effectiveness of the management system of automatic services requests (IVR)	>87.5%	99.5%	>96%
Average wait time at the branch in Milan	23'	10'24"	<22'
Average wait time at the branch in Brescia	18'	11'18"	<17'
Average wait time at the Branch in Bergamo	4'	3'42"	<4'
Timely response to written claims* received during the year	>85%	96.6%	-
Minimization of the claims index of the AEEGSI below a predefined minimum threshold	-	-	< 0.18%
Minimum number of annual surveys conducted by third parties for the detection of customer satisfaction	-	-	>=2

 $<sup>*</sup> Simple \ claims, according \ to \ the \ AEEGSI \ classification.$ 

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

## Social responsibility

A2A people

## The customers and public served

Suppliers
Institutions and local communities

Statement of compliance



166 2014 Sustainability Report

# Chiara2a: loyalty program of A2A Energia

During 2014, activities increased related to the loyalty program "Vantaggi Chiara2a" of A2A Energia, launched in 2012. The program aims to develop domestic customer loyalty, allowing members to collect points to be converted into shopping vouchers or to be used for discounts and benefits in a circuit consisting of 630 shops locally, 70 prestigious partners and 20 shops online.

For customers of A2A Energia, holders of a supply contract for domestic use of electricity or gas in the free market, registration is free and all members of the program can increase their collection points following some good conduct, such as: communicating self-reading of personal gas meters, activating for their supply the electronic bill and accessing online services. At the end of 2014, there were 147,191 registrations with the program, with an increase of 23.5 % compared to the previous year.

The main new feature of 2014 was the introduction of **Chiaraza Rewards Catalogue**: thanks to the accumulation of points, as well as shopping vouchers already in the program, each member also has the option, once the different thresholds are reached, to request the rewards from four different categories: (Home & Family, Technology, Leisure, Vouchers & Shopping Vouchers). The initiative was launched in May, for both customers registered and those not yet registered with the program, through an enclosure included with the bill, the creation of a website section dedicated to the rewards catalogue and promotion of digital campaigns on the website of A2A Energia and Chiaraza and via e-mail marketing.

The increase in registrations compared to 2013 was made possible thanks to activities involving customers activated in the year, including:

✓ Competition "Vote and Win with Chiara2a": purely digital engagement activities involved the creation of a survey in March to determine the rewards to be included in the new Chiara2a rewards catalogue, through a vote of several rewards divided by price ranges.

### ✓ Competition "Enter and Win Light and Gas":

the goal was to increase awareness and the value perceived by domestic customers on the circuit of affiliated businesses and offer program partners the opportunity for promotion and visibility of their activities on the territory, following a principle of "proximity/closeness" as a cornerstone of the program. The campaign involved the use of both physical channels (enclosing a leaflet with the bill to more than 1,000,000 customers, distribution at the counters of A2A Energia and at the POS of operators involved) and digital channels (e-mail marketing, dedicated website, SMS).

# Satisfaction of and listening to electricity and gas customers

A2A Energia has implemented a highly developed monitoring plan of its services and sales channels which aims to obtain constant feedback from its customers and measures the level of satisfaction.

#### Databank survey on the protected market

Databank-Cerved Group conducted in 2014, for the 7th year, a customer satisfaction survey on a sample of electricity and gas customers of major Italian energy companies to measure the level of satisfaction.

The results confirmed the very positive feedback in 2013, which place A2A Energia always at the top of the ranks. For electricity customers of the domestic sector, which recognize A2A Energia as first among the 10 companies analyzed, it can still be improved, in addition to clarity and simplified reading of the bills, the possibility for customers to choose solutions and tariffs.

The excellent result that A2A Energia has achieved also in 2014 for the domestic segment will be communicated to customers through a quality stamp affixed on the envelopes of bills issued in 2015.

### A2A ranks at the top

in customer satisfaction surveys



Figure 146 | Databank survey on the level of satisfaction of customers on the protected market

		2012				2013		2014		
	Type of customer	Score A2A Energia	Sector average	A2A Energia ranking	Score A2A Energia	Sector average	A2A Energia ranking	Score A2A Energia	Sector average	A2A Energia ranking
<b>C</b>	Domestic	91.7	87.1	1 <sup>st</sup> out of 9	90.1	87.0	1 <sup>st</sup> out of 7	90.8	88.9	3 <sup>st</sup> out of 8
Gas	VAT number&SME	87.9	84.3	2 <sup>st</sup> out of 6	87.0	86.3	3 <sup>st</sup> out of 6	87.9	87.4	2st out of 7
Flooricity	Domestic	92.0	87.2	1st out of 9	93.1	85.2	1 <sup>st</sup> out of 8	91.7	87.1	1 <sup>st</sup> out of 10
Electricity	VAT number&SME	92.0	80.8	2 <sup>st</sup> out of 10	92.2	82.5	2st out of 10	89	85.8	2st out of 11

) Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

## Social responsibility

A2A people

## The customers and public served

Suppliers
Institutions and local communities

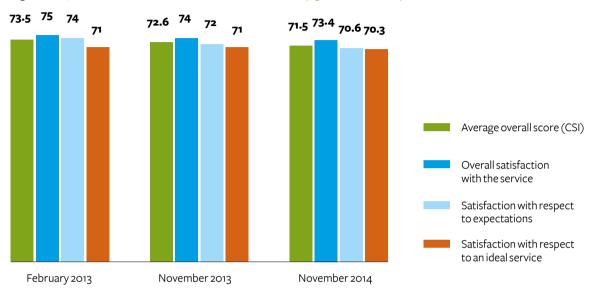
Statement of compliance



CFI survey free market

In November 2014, CFI Group Italia performed for A2A Energia, as already in 2013, a telephone survey to measure the level of satisfaction and loyalty of customers and collect indications for improvement in the quality perceived. The sample selected to interview was of about 1,500 domestic and micro-business customers with supplies of electricity and/or gas on the free market. The results showed that the overall CSI indicator (Customer Satisfaction Index) is stable and there was a slight decline only among domestic customers. The overall situation reflects quite closely the trend of almost all the main indicators of quality of service, which are mostly fairly stable. The level of satisfaction was higher than the threshold of good satisfaction (70) on almost all

Figure 147 | Satisfaction of customers in the free market (figures in hundreds)



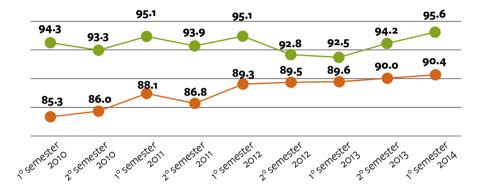
aspects, both as regards the sales channel, and as regards the contact channels (call center, counter, customer care, site): partial results have contributed to the degree of overall satisfaction.

### Call center survey

AEEGSI carries out surveys every six months on the quality of telephone services received by end customers. Even in the first half of 2014, customers of A2A Energia confirmed the appreciation for the call center service of the company, measured by a Customer Satisfaction Index (CSI) of 95.6%: the best result among the 37 companies involved in the survey and 5% higher than the national average. In particular, A2A Energia obtained a very positive result for the ability to solve problems as quickly as possible: 95.4%

obtained, 9 points higher than the national average (86.3%), is a sign of careful preparation and continuing training of operators, who prove to be competent and rapid in troubleshooting. This aspect is accompanied by the figure for clarity in the answers provided, which is awarded with a value of 97.1% (5.3 points higher than the national average).

Figure 148 | Customer satisfaction on call center operations





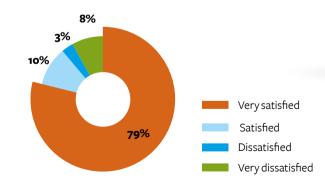


### After call survey

For several years, a survey has been carried out to detect the degree of satisfaction of the users of call center services with a method defined "after-call", which measures customer satisfaction at the end of a claim recently discussed over the phone. As is clear from the graph, also for 2014 survey results were again very positive for A2A Energia.

Furthermore, more than 53% (+9 points vs. 2013) of the interviewees reported that the service exceeds expectations and 55% (+3 points vs. 2013) found that the company performance in resolving problems was better than expectations.

Figure 149 | Customer satisfaction after



(% satisfied customers)

---- National average

---- A2A Energia

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

## Social responsibility

A2A people

## The customers and public served

Suppliers
Institutions and local communities

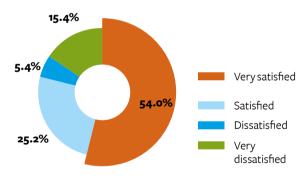
Statement of compliance

### Quality of branches

A similar survey was conducted in 2014 to determine appreciation of the service at the main branches of Milan, Bergamo and Brescia, expressing an overall opinion and an assessment of the main quality indicators: the ability to solve problems, courtesy and waiting time.

Collection is promoted through a notice on the light panels for call booking, present in the halls and is implemented through anonymous delivery of the questionnaire in a dedicated urn. Even for this service customers have expressed a very positive result: 79.2% were satisfied or very satisfied.

Figure 150 | Customer satisfaction on the services provided at the counter



The updated monthly data are available on the site **www.a2aenergia.eu** under About Us - Our service section

# 5.2.1.3 | Customer responsibility electricity and gas and management of vulnerable customers

With reference to the sales initiatives for the services of electricity and gas, A2A Energia and Aspem Energia have several proposals aimed at particular attention to aspects of sustainability.

In particular, A2A Energia and Aspem Energia in 2014 continued to develop and offer products with energy from renewable sources (water and biomass). The offers that promote green energy are identified by the **"ENERGIA A2A Rinnovabile 100%"** brand, which ensures respect for the environment.

The attention of A2A Energia for the sale of energy from renewable sources in 2014 has resulted in an increase of offers on the two main customer segments:

- Domestic customers: Prezzo Sicuro Verde (monofuel electricity offer), Casa2a (dual-fuel offer) and Unica2a (dual-fuel offer)
- Business customers: Energia Pulita A2A,
   Rinnova2a Doppio Risparmio (mono-fuel) and
   Rinnova2a Doppio Risparmio DUAL (dual-fuel)

The actual production from renewable sources is guaranteed by a procedure with certificates of origin, recognized at European level, with GO certificates (Guarantees of Origin). The "GO" is an electronic certification attesting to the origin of the sources used by qualified plants. Each GO issued by the GSE (Energy Services Manager) on electricity fed into the grid, in accordance with the Directive 2009/28/EC, has a value of 1 MWh. The GO certificates are issued, transferred and cancelled electronically.

In 2014, **401.4 GWh of green energy** was sold. In 2014, a major commercial campaign was carried out for the sale of Green Energy in the business and domestic segments resulting in 89% of Green Energy contracts out of total contracts signed in the year.

Figure 151 | Energy distribution contracts by segment

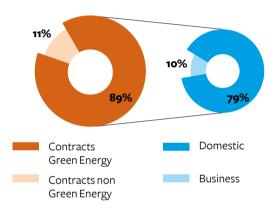
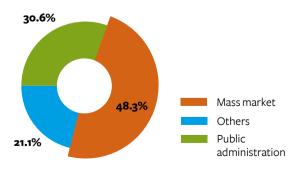


Figure 152 | Consumption of green energy by market







In 2014, A2A Energia launched an offer to the free market **RinnovA2A**, particularly aimed at business customers, offering a kit of 2 energy-saving LED lamps together with the contract for the supply of electricity.

The LED lamps are made in Italy, have an output of 11 W (equivalent to a lamp with incandescence of 75

W) and guarantee a savings of approximately 86% compared to conventional lamps.

In 2014, along with offers to the free market, **about 19,500 LED lamps**, were provided for a total of almost 9,750 energy-saving kits.

Mix of energy sources in the bill

A2A periodically informs customers about the composition of the energy consumed to make consumers aware of their energy choices (Fuel Mix Disclosure). The sales companies are required, in fact, to provide their end users with information on the composition of the energy mix to produce the electricity supplied, together with the national average mix of production of electricity fed into the Italian electricity system. In 2014, A2A fulfilled its reporting obligations for the year 2013, as a producer of electricity and as selling company,

communicating to GSE its mix of production sources and the composition of the energy sold to its customers.

The disclosure to customers is communicated in the bill, in the commercial offers and on the website. A2A Energia stated a percentage of energy sold from renewable sources of 31.54% (forecast figure) for the free market and 23.5% for the protected market.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

A2A people

The customers and public served

Suppliers
Institutions and local communities

Statement of compliance

Attention to vulnerable customers is evidenced by various solutions adopted to facilitate the different needs.

For **customers who are blind** A2A Energia has been issuing bills in Braille for about ten years and, from the second half of 2012, the service has been further enhanced with the release of the bill in both black and Braille (overlay), allowing reading also for sighted people. For customers who do not know Italian, the main branches provide multilingual brochures and operators are able to manage multilingual relations.

For **customers with limited mobility** at most branches open to the public there is facilitated and priority access for specific situations such as: the disabled, pregnant women, the elderly and other citizens belonging to disadvantaged groups.

Finally, for easy reading of electricity and gas bills for all **customers** A2A Energia has created for about 4 years a "Guide to reading the bill" in seven languages: Italian, English, French, Spanish, Arabic, Chinese, Romanian. The guides are available at the commercial branches and consumers' associations participating in the initiative, as well as on the website of A2A Energia in "navigable" version.





### **Energy discounts with the social bonus**

As required by the AEEGSI, A2A provides specific "bonuses" for the purchase of energy. They are compensation measures for the supply of electricity and gas to domestic customers in difficult economic or social conditions or those with household members who have serious problems of health and are keptalive by home-based electro-medical equipment. The bonuses are funded by the State and through the use of specific tariff components determined by the AEEGSI and are provided to all qualifying domestic customers who have submitted an application to the Municipality in which they live for admission to the social tariff.

In 2014, the economic bonus for electricity ranged from 72 to 156 euro per year in relation to the number of family members and the level of income (ISEE), while for the situations of physical discomfort, the value was between 177 and 639 euro. The value of the gas bonus is instead related to the climate zone and the type of use (heating, hot water, cooking and hot water, cooking and heating): for A2A in 2014 it ranged between 35 and 318 euro per year.

#### A2A customers who have used the social bonus

	2012*	2013	2014
Gas Bonus	21,715	21,863	19,174
Electricity Bonus	17,897	18,717	18,552**

<sup>\*</sup> Excluding Aspem.



<sup>\*\*</sup> Of which 1,030 for physical discomfort.

# 5.2.2 | District heating and heat management

For over 40 years, A2A has been a leader in the production, distribution and sale of heat in the areas of Milan, Brescia, Bergamo through A2A Calore & Servizi and in the Varese area through its subsidiary Varese Risorse.

This service, which continues to grow, is currently delivered to over **24,000 users** (individual residential units in the case of independent heating or whole buildings in the case of centralized heating), for a total served volume of **92.7 million cubic meters** (+4% vs. 2013)

Figure 153 | Volume served by the district heating network (Mm<sup>3</sup>)

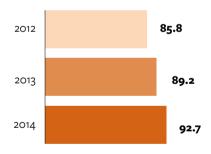
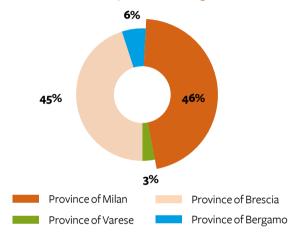


Figure 154 | Geographical distribution of the volume served by district heating at the branches



For further information on the district heating development plan, refer to the section on Environmental responsibility from page 90 to 93

A2A Calore & Servizi and Varese Risorse also have specific skills in rationalizing the **energy management of buildings** through measures to improve efficiency, such as:

- the conversion of heating plants fuelled by liquid fuels to methane;
- condominium heat management;
- energy management for large property complexes and public administrations.

In 2014, A2A Calore & Servizi made 57 changes to plants for a total capacity of 37,340 kW (+151% compared to 2013).

### 92.7 million cubic meters

is the volume served by the district heating of A<sub>2</sub>A



Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

A2A people

The customers and public served

Suppliers
Institutions and local communities

Statement of compliance

# 5.2.2.1 | Fairness and transparency with customers of district heating

The development plan for district heating is implemented in line with the guidelines on urban planning and planning of actions, defined with the Municipalities.

Citizens are provided with communication on the development in their neighborhoods through the widespread distribution of **leaflets**, about **80,000** were distributed by A2A Calore & Servizi in 2014.

In the "Work in progress" section on the website of A2A Calore & Servizi site notices are regularly published to allow citizens to be constantly updated.

Through the "Direct Line" section it is possible to request via the web commercial and contractual information, technical assistance or general information about the service.

A **toll-free number** is also active whose operators through specific constantly updated search models may verify whether the building subject of the request falls within the commercial areas. The number is also active for information or reports.

# 5.2.2.2 | Quality of services provided and attention to district heating customers

The district heating service is provided ensuring continuity, punctuality and energy saving.

A2A Calore & Servizi and Varese Risorse monitor and measure the parameters of their services to consistently monitor compliance with all technical, commercial, quality, environmental and safety specifications. Both companies are certified ISO 9001:2008 and ISO 14001:2004, while only A2A Calore &

Servizi is certified OHSAS 18001:2007. In depth analysis of service quality provided is important to retain existing customers and to acquire new customers, also in view of new network extensions.

District heating offers many advantages in terms of safety, convenience and efficiency of the plants.

Boilers are in fact replaced by simple heat exchangers, which ensure:

- a lack of combustion and open flames;
- the elimination of any danger of gas leaks or poor combustion, and any risks of explosion or fire;
- easy management and maintenance;
- longer durability of the plants.

In 2014, the **Charter of Services of the District Heating** was drafted and is valid in all the territories where A2A Calore & Servizi operates.

The Charter was agreed on and realized with the 17 Consumers'Associations recognized by CRCU Lombardia (ACU Adiconsum, Adoc, Adusbef, Altroconsumo, Assoutenti, La Casa del Consumatore, Cittadinanzattiva, Codacons, Codici, Confconsumatori, Coniacut, Federconsumatori, Lega Consumatori, Movimento Consumatori, Movimento Difesa del Cittadino, Unione Nazionale Consumatori) and aimed at customers of all areas in which A2A Calore & Servizi operates. The objective of the Charter is to present in a clear and transparent manner the commitments that bind the company to its customers. The document contains details of service quality standards, the way in which customers are listened to and the tools available for protecting consumers.

The Charter is free and can be collected at any company branch open to the public or at the premises of Consumers' Associations, or via a request to Customer Service of A2A Calore & Servizi, by calling the toll free number 800.912.198 or downloaded from the website www.a2acaloreservizi.eu

The collaboration with the Consumers' Associations has not been completed with the drafting of the Charter, but will continue in control and monitoring activities for the quality of services provided by the company and with a Settlement Protocol to resolve any disputes out of court

(a)

For more information on the benefits of district heating visit the Home Page of the site www.azacaloreservizi.eu

# 5.2.2.3 | Responsibility of district heating customers

The heating and cooling sector is responsible for half of the energy demand of end users in Europe. For this reason, the latest European directives and national legislation (Directive 2012/27/EU and Legislative Decree 102/2014) require an integrated approach to urban development planning, including energy, heating and cooling issues. The Stratego Project, involving partners from 16 European countries, aims to help the national authorities and local authorities in this task. A2A Calore & Servizi is the Italian partner of the project.

The objectives of the **Stratego Project**, co-financed by the European Union under the Intelligent Energy Europe program, are:

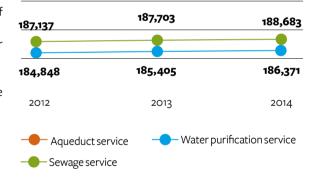
- provide concrete support to the development of National Plans for efficient heating and cooling;
- assist local authorities in assessing the potential for efficient heating and cooling of their territory;
- identify priorities for action;
- identify concrete projects to be implemented in the territory.

### 5.2.3 | Integrated water service

The integrated water service (aqueduct, purification, sewers) in the Group is managed by a company called **A2A Ciclo Idrico**, which operates in Brescia and its province, while the subsidiary **Aspem** distributes drinking water in Varese and the surrounding province.

Figure 155 | Integrated water service users

278,336	279,188	280,092
	•	



23%
Province

Figure 156 | Geographical distribution of aqueduct

service users

5.2.3.1 | Fairness and transparency with customers of the water cycle

A2A Ciclo Idrico and Aspem offer their customers branches located throughout the territory where they can conduct business or ask for information. It is also possible to contact the company through a toll free number and a dedicated number and via an online counter. This channel in A2A Ciclo Idrico can also be used to pay bills, a service that is garnering growing success among customers and which recorded approximately 40,000 operations in 2014. The A2A Ciclo Idrico call center continued to achieve very high quality levels again in 2014, with 80% of calls being successful. The average waiting time slightly worsened, from 116 to 137 seconds.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

of Brescia

Province

of Varese

Social responsibility

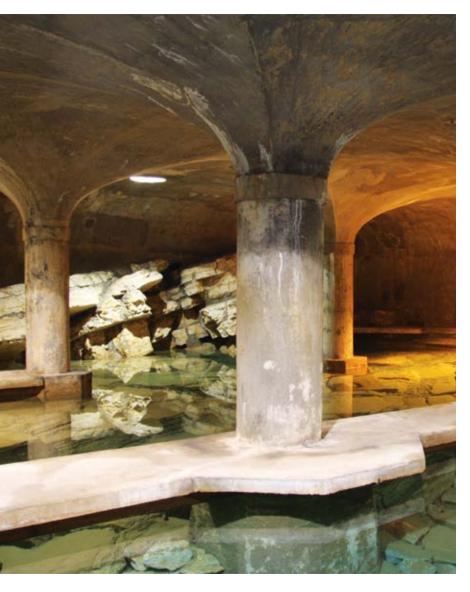
A2A people

The customers and public served

Suppliers
Institutions and local communities

Statement of compliance





As of 2014, the **bill of the integrated water service** of A2A Ciclo Idrico has been made compliant with the AEEGSI resolution 586/2012/R/IDR of December 28, 2012 ("Approval of the First Directive for the transparency of bills of integrated water service"), which requires to communicate, in particular:

- the contact details via which the end user can contact the operator, in case of emergencies or to obtain information or make a complaint;
- information on the readings and consumption, including variations of the same consumption over time;
- summary and breakdown of the amounts charged, including charges other than those relating to the tariff of the integrated water service;
- information on payments and some supply conditions, including the consequences in case of non-payment of bills;
- information on the quality of the resource and on the standards of quality of service guaranteed to users.

# 5.2.3.2 | Quality of service provided and attention to customers of the water cycle

Both A2A Ciclo Idrico and Aspem are certified ISO9001:2008 and ISO14001:2004 while only A2A Ciclo Idrico is certified OHSAS:18001:2007.

At **Aspem** the parameters that are useful to monitor the efficiency and effectiveness of the service are recorded in management software, through which appropriate indicators are monitored that are able to highlight, in summary, compliance with predefined standards of service to end users, allowing the adoption of corrective action. The parameters analyzed are related to the

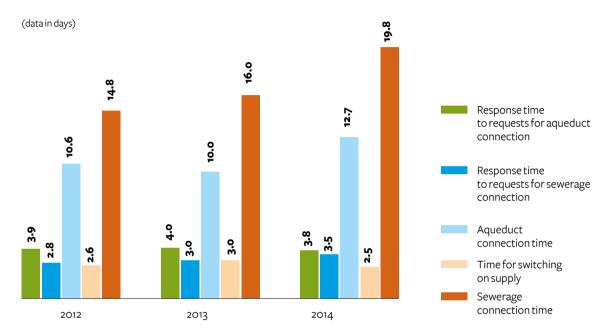
effectiveness and efficiency of the service, for example, the average waiting time at the branches or the degree of respect with the analysis program of water potability or the number of hours spent on a connection. A2A Ciclo Idrico also has its own system of monitoring various parameters associated with the service.

## ISO 9001:2008 ISO 14001:2004

are the certificates of A2A Ciclo Idrico and Aspem



Figure 157 | Quality indicators of A2A Ciclo Idrico service



The integrated water service is **governed by a Charter of Services**, which sets out the commitments the company must maintain with its customers regarding various aspects, such as: methods and times for preparing estimates, and how long it takes to obtain a water connection, etc.

A round-the-clock emergency service is available for reporting any faults noted in the public sewage system.

Supplying quality water is the primary objective of the Group companies providing the aqueduct service. Therefore, quality checks are performed along the entire production chain in accordance with the law.

The water undergoes special tests and disinfecting treatments, and chemical-physical or biological purification treatments where necessary before it is fed into the network and reaches the tap.

In addition to the traditional analyses, in January 2013, A2A initiated research and experimentation for **the removal of hexavalent chromium in water** (see detail on pages 107 and 108) and since the end of August 2014 has gradually commissioned the related reduction equipment. In early January 2015, 75% of the drinking water of Brescia contained an amount of hexavalent chromium lower than 2 gg/l (below the soglia rilevabile

For more information, visit www. a2acicloidrico.eu; and the Activities section of the site www.aspem.it

For more information on data related to concentrations of the parameters characteristic of the water distributed visit the Water Quality section at www.a2acicloidrico.eu; and the Activities section of the site www.aspem.it

threshold detectable by the analytical methods currently used). A2A will incur expenditure of more than 4 million euro over a two-year period in order to achieve an improvement in the quality of the water distributed in the city of Brescia.

## Satisfaction of and listening to customers of the water cycle

In 2014, A2A Ciclo Idrico conducted a survey of user appreciation for the "branch service" through the completion of a simple questionnaire relating to the following: ability to solve problems, courtesy of the staff and waiting times.

The greatest dissatisfaction was related to waiting times. The main complaints made to the company instead concern billing and leakage of water.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

A<sub>2</sub>A people

The customers and public served

Suppliers Institutions and local communities

Statement of compliance





### Brescia: safe water from the tap

To make citizens aware of the project to improve the water quality and the good results achieved progressively, A2A Ciclo Idrico, in agreement with the Municipality of Brescia, has set up a **communication plan** designed to bring people closer to tap water, making them rediscover **good water quality** and promoting use as **"drinking water"**. In April 2014, all the houses of the families in Brescia were delivered a publication on the quality of water distributed from the aqueduct, to review progress on the issue at a time of particular sensitivity of public opinion in the town. The publication referred to national legal regulations, the European Union and the World Health Organization and also provided accurate values, broken down by areas of the city, of the water analyses carried out by A2A Ciclo Idrico.

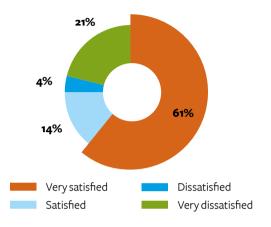
In November 2014, a second publication was delivered with the objective of updating the public on the quality of the water, after the start of the reduction of hexavalent chromium.

To stay informed on the quality of water supply, inhabitants of Brescia have access to the websites of ASL Brescia and A2A Ciclo Idrico, where all data analyses are constantly updated.

The site of A2A Ciclo Idrico will also highlight the values of total chromium and hexavalent chromium.

The project also had an environmental value: the reduction of the consumption of bottled water in fact translates into a reduction of CO2 emissions from the production, transport and disposal or recycling of the bottles.

Figure 158 | Index of customer satisfaction at the branches



# 5.2.3.3 | Customer responsibility and management of vulnerable categories

A2A Ciclo Idrico and Aspem perform numerous initiatives to raise awareness, through the publication of information on websites and guides on water saving. Moreover, they offer their customers the option to subscribe to insurance policies at promotional rates (for domestic customers only) against the risk of concealed drinking water leaks.

As for the management of vulnerable customers, A2A Ciclo Idrico has a database with information on users that cannot be disconnected.

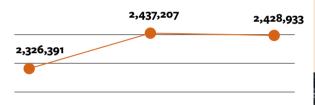


For further information visit the Communication section at www. azacicloidrico.eu; and the Activities section of the site www.aspem.it

### 5.2.4 | Environmental services

As part of the A2A Group, the urban sanitation service is performed by Amsa (Milan and province) and Aprica (Brescia, Bergamo, Como and provinces), subsidiaries of A2A Ambiente, as well as Aspem (Varese and province). The companies globally cover 93 Municipalities (+5 compared to 2013), for a total of over 2.4 million people served.

Figure 159 | Population served by the urban sanitation service



2012 2013 2014

In 2014, the extension of wet waste collection to the entire city of Milan by Amsa was concluded. This has allowed **reaching the level of 50% in the portion of differentiated waste**.

At the end of 2014, Amsa was awarded the tenders called for the management of environmental services by the Municipalities of:

- Pero, from January 1, 2015 (five years);
- Cesate, from March 1, 2015 (five years):
- Corsico, from March 1, 2015 (for six years).

# Special mention for Amsa in the initiative of Legambiente "Recycling Municipalities"

The collection managed by Amsa has reached 50% in the Municipality of Milan. For this result, Milan has received a special mention at the XXI edition of "Recycling Municipalities", the event organized by Legambiente in Rome which awarded the best performing Municipalities in the management of municipal waste. Milan has recorded a significant increase in the percentage of differentiated collection in the last year, ranking first among the major Italian cities and, together with Vienna, among the European

cities with more than 1 million inhabitants. Legambiente has justified the prize awarded to the Municipality of Milan with the effectiveness of the "door to door" waste management system active throughout Milan and with the extension of wet waste collection to households, completed June 30, 2014. The activation of the new service of collection of organic waste throughout Milan has made it possible to achieve 50% of differentiated waste, an increase of 14 percentage points in 18 months.



Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

## Social responsibility

A2A people

## The customers and public served

Suppliers
Institutions and local communities

Statement of compliance

In September 2014, the experimentation of "door to door" collection started in Zones 3 and 4 of Milan of low energy and neon exhausted light bulbs which will continue until May 30, 2015. The project, developed by AMSA in collaboration with the Consortium Ecolamp, identified 120 collection points, including schools of all levels (from nursery schools to universities), libraries, recreation centers, offices of the Zone Councils, sports facilities, centres for the elderly, parishes and stores that have joined the initiative. For more information about the project, see the section "Institutions" on page 212.

In June 2014, the service started **door-to-door waste collection in the Municipality of Come** performed by Aprica that, at the end of 2013, won the tender for 10 years.

On February 10, 2015 **Aspem** started testing **the accurate collection of non-differentiated waste** for 2,500 users of 41 streets of the city of Varese. The experiment, through the use of special detectors (TAG), will allow identifying how many bags of non-differentiated waste are produced and by whom and will allow calculating a more equitable tariff (called accurate tariff) because it is calculated according to the principle of "pay as you throw".

In addition to the environmental sanitation services managed through the two subsidiaries, **A2A Ambiente** manages waste-to-energy plants and works for local authorities and businesses guaranteeing advanced efficiency In the management of urban waste and hazardous and non-hazardous industrial waste, as well as environmental reclamation of water and soil on industrial sites, whether or not they are still in operation.

The company also manages the processes of recovering energy and materials from waste, it also designs, executes, and manages integrated waste-to-energy systems, including for third parties.

# 5.2.4.1 | Fairness and transparency with customers of environmental services

Amsa maintains a direct relationship with citizens and customers through various channels, including the **telephone** which is the most used. However, there was a turnaround in the number of calls: from +6% in 2013 over 2012 to -6% in 2014 over 2013. Also, reports received through IT channels are increasing. There was an increase in reports from the local police in Milan via the CRM "Ambrogio" application (+156% with 8,271 contacts in 2014), whose integration with the operational management of the service is imminent. Demonstration of the increasingly widespread use of web tools and Apps is also the upward trend of bookings for the collection of bulky waste in self-service mode via the web application (+27% compared to 2013) and contacts received via servizioclienti@amsa.it (+10%) and via the web channel" Contacts "and the App "PULlamo" (+122%). In 2014, Amsa responded within 7 days to 87% of written contacts.

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 submit reports and complaints.

Aspem has a desk open to the public from Monday to Friday from 8:30 to 12:30 p.m. and dedicated numbers for the urban sanitation service, depending on the type of information requested.

For **A2A Ambiente**, which operates almost exclusively with companies, the main channel for customer contact is via the **direct relationship between sales agent and the customer**.

Figure 160 | Quality levels of the Amsa call center

	2012	2013	2014
Percentage of successful calls	95%	93%	93%
Accessibility of the lines and the service (free line time compared to the time when the operator is present)	100%	100%	100%
Average waiting time on the telephone (minutes seconds)	61	84	94

## +27% compared to 2013

the use of the web application for collection of bulky waste



# 5.2.4.2 | Quality of service provided and attention to customers of environmental services

All Group companies that manage environmental services are certified ISO 9001:2008 and ISO 14001:2004, while only Amsa and Aprica are certified OHSAS 18001:2007. In the management system of Aprica some indicators are monitored related to the management of complaints, such as the number of responses to written complaints sent within the guaranteed time (20 working days) out of the total written complaints received or the average response time. Even Aspem analyzes similar information, related to the effectiveness and efficiency of the service.

Amsa and Aprica govern their service to citizens with the charter of Services, which describes the methods, timelines, and quality of the services the companies commit to guarantee.

In July 2013, a new edition of the **Amsa Services Quality Charter** was published, also valid in 2014, illustrating the services provided to the city, based on the Service Contract signed with the city of Milan. The document contains details of service quality standards, the way in which residents are listened to and the tools available for protecting users.

In 2013, Aprica created the **Quality Charter of Environmental Sanitation Services** for the

The Service Charters of Amsa and Aprica are available respectively on the sites www.amsa.it and www.apricaspa.it Citizens section

municipality of Bergamo and in 2014 for the Municipality of Concesio. The Charter clearly states the commitments of Aprica for compliance with contractual provisions entered into with the Municipality and detail of the services to be provided to citizens.

The work of preparing and defining content, performed in collaboration with the Consumers' Associations in the province of Brescia and the Municipality of Concesio, has resulted in a result which, with the appropriate changes related to service specifications, may be a valuable support for Service Charters to be realized also in other Municipalities.

For **Aspem**, the urban sanitation service is governed by the **urban sanitation service regulation** of the Municipality of Varese.

#### Customer satisfaction

Amsa periodically conducts customer satisfaction surveys to monitor how satisfied citizens of Milan and surrounding Municipalities are with the company's services, as well as to ensure ongoing improvement in the quality of the services delivered and to offer its customers innovative services.

In 2014, the survey was conducted in April, through **5,200 telephone interviews**: 4,000 families living in Milan, 1,000 families in surrounding Municipalities, and 200 people who own businesses in Milan. Some of the most important aspects analyzed included waste collection, street cleaning service, relationships with citizens, special services, and services provided on request. As for the families residing in Milan, overall satisfaction was essentially good, although slightly lower than in the survey in 2013: -0.2 points in the instinctive satisfaction indicator (6.9) and the **reasoned** 

**satisfaction indicator** (7.4). Citizens are very sensitive to issues related to street cleaning, which has the highest impact on reasoned satisfaction and is the area that has the most room for improvement. Additional services to be monitored are the special services and, as recently introduced in some departments, the compostable bag. Clarity of the instructions on collection procedures was highly appreciated: more than half of respondents (+8% compared to 2013) expressed assessments between 9 and 10 and 89% however considers them clear.

Aprica, in agreement with the Municipality of Bergamo, carried out a customer satisfaction survey aimed at surveying the satisfaction of domestic and business users of the Municipality with respect to environmental sanitation services. In March, 1,000 telephone interviews were conducted with domestic users and 300 with commercial users. The interview was based on a questionnaire designed to measure the opinion of citizens on specific areas such as: satisfaction regarding waste collection and street cleaning; the importance of differentiated collection, satisfaction concerning differentiated collection and channels of contact with Aprica (customer counter, toll-free number, website, etc.), as well as a general assessment of the service as a whole and on the level of awareness of the service provider of environmental sanitation and waste collection and disposal. Before the start of the survey, the questionnaire layout was shared with the Department of Environment and with the representatives of Consumers' Associations active in Bergamo. Regarding domestic users, overall reasoned satisfaction with Aprica was higher than that expressed instinctively and went from an average of 7.46 to 7.92 (on a scale of 1-10). At commercial users, the overall reasoned satisfaction stood at 7.5. For both

Introduction

The A<sub>2</sub>A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

A2A people

The customers and public served

Suppliers
Institutions and local communities

Statement of compliance

## **(**)

## Aprica for an ethical city

"ABITO in una città solidale" is a responsibility project that took place in Bergamo, sponsored by the Cooperativa Ruah in collaboration with Caritas Diocesana Bergamasca, Municipality of Bergamo and Aprica. With the distribution of special red bags, differentiated collection became ethical turning into a door to door collection of used clothing, linens, purses, shoes, belts. The initiative was aimed at several objectives: to optimize the collection of used clothing, recover textiles and leather, increase differentiated collection, promote the reuse of clothes, create new jobs. Clothing collected helped to support various social projects of Caritas Diocesana Bergamasca and Cooperativa Ruah.



types of respondents, cleaning of roads and pavements is the main reason for satisfaction with Aprica, but also the main aspect to be improved further, additional demonstration of its relevance.

## 5.2.4.3 | Responsibility of customers of environmental services and attention to vulnerable groups

In 2014, Aprica arranged several town meetings and **information points** for the launch of the service in new Municipalities, dedicating ample space, to practical aspects and the environmental reasons of the service set-up choices. The information material was produced in different languages, on the basis of ethnic groups mostly present in the area. On other occasions Aprica, in agreement with the Consumers' Associations, organized evening meetings and gazebos to inform citizens about the results achieved in the differentiated collection and provide further stimulus to the increase in environmental awareness. In addition, following the request by a large number of deaf people and in collaboration with ENS (Ente Nazionale Sordi), on the occasion of the implementation of the new waste collection service in the Municipality of Flero (Brescia), an informative meeting was organized with the support of a sign language interpreter (Italian Sign Language).

During the year, **Amsa** initiated an informative project on recycling for foreign communities in the area of Milan, in collaboration with the relative associations. The association Italo-Senegalese Sunugal was committed, during the Football World Cup and during events organized by the association at Fabbrica del Vapore, to presenting the multilingual informative material of Amsa

and organizing training sessions in the related language on the subject of differentiated collection, with the aim of raising awareness on this issue among their community. In 2014, the **new website of Aprica** went online with new graphics and a renewed, simple and effective navigation map, in line with the other sites of the Group companies. Particular attention was paid to multilingual accessibility: various sections of the site are available in 8 languages other than Italian, also to allow the many foreign residents in the Municipalities to consult and download the main information on differentiated collection.

Amsa launched on its website an informative campaign on "fake workers", informing the public that company personnel can enter the homes of citizens by appointment only, and at the specific request of the citizen itself, for home collection of bulky waste directly at the door.

## 5.2.5 | Site management

A2A strictly controls the management of sites for workoninfrastructure, expansion of networks and plants, as well as for maintenance tasks entrusted to external companies. The verifications concern in particular: effective implementation of the commissioned works, respect for timing, use of established materials, performing the tests requested, environmental and social impact and the provisions of the tender specifications. Regarding the impact on traffic and the environmental context concerned with the works, the company adopts site management procedures that are as little invasive as possible, scrupulously following the indications of granting Administrations and respecting related rules and regulations. The conduct standards

of A2A also include: the commitment not to perform work at night except for exceptional cases, the use of soundproofed machinery, prompt and widespread information provided to the areas affected by the work, and careful management of any complaints or reports from citizens and road users.

**A2A Servizi alla Distribuzione** provides its support to Group companies operating in network services, using methods and procedures that ensure quality and respect for the environment and safety. The company is certified ISO 9001, ISO 14001 and OHSAS 18001 and has among its objectives the continuous improvement of operational safety.

The plan "Audit Environment, Health and Safety 2014" was scheduled on a regular basis, conducting monitoring visits on a sample of road works, in accordance with the provisions on health and safety at work (Legislative Decree 81/2008) and the environment (Legislative Decree 152/2006), to verify the performance of maintenance work on the distribution networks of electricity, gas, water, telecommunications networks.

The methodological approach adopted for carrying out checks on road work sites considers the following aspects:

- current legislative references and company procedural framework;
- census of road works in progress and selection of sites to visit;
- acquisition of information and data on the work sites (ex. location, type of intervention, companies, etc.) and contacting the internal managers;

- perform verifications at construction sites with the support of the functions that are entrusted with the management of the site and with the help of special check lists and photographic surveys;
- sharing the results of the verifications with the competent internal managers;
- drafting of the final report and presentation of the conclusions to the Management.

In 2014, more than 20 verifications were performed at road construction sites managed by the Group companies, in addition to the verifications that each company performs periodically at their work sites. In general, the sites were properly managed, although the visits resulted in some points for improvement, especially with regard to document management and site signage.

In 2014, a total of 1,292 reports, were received for road anomalies, distributed as follows:

- 892 reports in the Municipality of Milan, of which 449 through the portal CRM "Ambrogio", an innovative technological system whereby agents of the Local Police, road inspectors and Area Councillors can directly submit reports, via smartphones and PDAs, to a single municipal focal point which shall allocate them by competence, saving time and paper;
- 393 reports in the Municipality of Brescia, of which 277 via dedicated e-mail and 46 via system within the company;
- 77 reports in the Municipality of Bergamo, from dedicated e-mail address.

The matters raised most frequently in the reports are those classified as "components" (mainly lighting points which are not working or damaged street cabinets) and "potholes/manholes". Other frequent causes for reporting are related to delays in restorations and restorations performed incorrectly or prematurely deteriorated.

## **CRM Ambrogio:**

for timely management of complaints



Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

A2A people

## The customers and public served

Suppliers
Institutions and local communities

Statement of compliance

# 5.2.6 | Management of complaints and disputes

The A2A Group companies handle the management of disputes with customers or situations that require investigations to establish the facts diligently and with the help of several tools. If there has been a misunderstanding or complaint or the need for clarity is felt, each company operates punctually paying great attention to customers and their reasons for complaint. In 2014, throughout the A2A Group there have been 5,415 written complaints (with the exception of the company Selene).

For the specific nature of the service offered, the companies that receive the highest number of complaints are those involved in the sale of energy. In this regard, A2A Energia has implemented a series of measures to ensure a timely and effective handling of complaints. In particular:

- an organizational function was created dedicated to the processing of complaints, which handles all written complaints received and ensures accurate and timely responses;
- the Joint Conciliation service was established for disputes;
- 'Guides to reading the bill' have been published both for gas and for electricity, to allow easy understanding of the document;
- a Quality and Safety Management System was adopted under which cases of non-conformities that arise in the different activities are regularly recorded.

The number of written complaints received, in relation to the number of electricity and gas customers, is still at low levels and below market data, as can be seen from the table below.

Figure 161 | Complaints trend 2012-2014

	c	omplain	ts	Simple Complaints as % of average number of customers					
	2012	2013	2014	2012	2013	2014			
A2A Energia	2,807	3,607	3,008	0.14%	0.18%	0.16%			
Aspem Energia	26	1	0	0.07%	<0.01%	0			
TOTAL	2,833	3,608	3,008	0.14%	0.18%	0.15%			

Nota: The Electricity, Gas and Water Authority (AEEGSI) defines "simple complaints" as complaints which are the exclusive responsibility of the seller and for which providing a reply does not entail obtaining data that is the responsibility of the distribution company. The number of customers used for the calculation refers to the type indicated by the AEEGSI.

An analysis of the reasons of complaints shows that about two thirds are due to:

- complaints regarding consumption or meter readings;
- contractual and tariff aspects;
- aspects related to the management of non-payment;
- payments, including direct debit.

As for litigations, at the end of 2014, 2 legal proceedings were ongoing against two customers of A2A Energia: a billing dispute due to fiscal problems and one for a meter malfunction. Another 47 cases are also pending, in which citizens demand compensation, mostly for small amounts, for loss or damage of property or things, often caused by contractors. Another 33 pending cases concern claims for personal damage related to injuries, often occurred during work performed mainly by contractors. Of the 33 cases with physical injury 2 are related to fatal

accidents, the first of which was caused by malfunction of the gas plants of the end customer and the other involved a Group company in charge of managing the traffic light. Finally, three cases are still pending for alleged violations of property rights of citizens.



## 5.2.7 | Tables: customer figures

## Marketing of electricity and gas

#### Figure 162 | Electricity supply contracts by type of market

	2012	2013	2014
Protected market	876,486	831,198	774,722
Free market	131,492	158,900	204,927
TOTAL	1,007,978	990,098	979,649

#### Figure 163 | Gas supply contracts by type of market

	2012	2013	2014
Protected market	1,105,203	1,063,484	954,120
Free market	66,519	76,628	160,852
TOTAL	1,171,722	1,140,112	1,114,972

## Figure 164 | Customer satisfaction with the call center (AEEGSI survey)

	1St HY 2012				1st HY 2013		1st HY 2014			
(% SATISFIED CUSTOMERS)	A2A Energia	National average	Difference	A2A Energia	National average	Difference	A2A Energia	National average	Difference	
Time taken to find the line free	96.3	93.2	+3.1	96.3	94.1	+2.2	97.1	94.2	+2.9	
Simplicity of the automatic answering system for being able to speak with the operator	89.1	92.7	+3.6	95.1	93.5	+1.6	95.3	94.3	+1	
Waiting time to speak with the operator	97.4	92.5	+4.9	96.6	93.2	+3.4	97.1	95.2	+1.9	
Politeness of operators	98.9	96.3	+2.6	98.2	95.5	+2.7	98.3	95.9	+2.4	
Clarity of answers	97.2	90.6	+6.6	95.6	90.4	+5.2	97.1	91.8	+5.3	
Ability to resolve the problem in the shortest time possible	95	84.9	+10.1	90.1	84.8	+5.3	95.4	86.3	+9.1	
CUSTOMER SATISFACTION INDEX (CSI)	95.1	89.3	+5.8	92.5	89.6	+2.9	95.6	90.4	+5.2	

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

A2A people

# The customers and public served

Suppliers
Institutions and local communities

Statement of compliance

Figure 165 | Technical quality of the electricity production process: average availability factor\* (%)

TYPE OF SOURCE	2014
Traditional - coal	80%
Traditional -heavy fuel oil*	85%
Natural gas -combined cycle	79%
Hydroelectric - flowing	79%
Hydroelectric -dams	76%
Hydroelectric -reservoirs	85%

<sup>\*</sup> Hours in which the plant is ready for operation, weighed on installed capacity.

## **Electricity and gas distribution**

Figure 166 | Extension of the electricity distribution service

	2012	2013	2014
Km of electricity network	13,052	13,254	13,837
of which underground cable	10,905	11,192	11,787
Customers connected	1,115,157	1,118,073	1,121,954
Municipalities	54	54	54

Figure 167 | Customers of the electricity distribution service by geographical area

	2012	2013	2014
Lombardy	1,115,241	1,119,348	1,121,954
of which Milan	881,906	883,250	886,338
of which Brescia	233,251	236,098	235,616
Other northern Italian Regions	0	0	0
The rest of Italy	0	0	0

### Figure 168 | Extension of the gas distribution service

	2012	2013	2014
Km of gas network	7,980	7,838	7,627
End users connected	1,344,373	1,259,457	1,216,607
Municipalities	208	202	200

#### Figure 169 | Customers of the gas distribution service by geographical area

	2012	2013	2014
Lombardy	1,288,106	1,203,780	1,173,930
Other northern Italian regions	27,427	26,741	13,305
The rest of Italy	28,840	28,936	29,372

Note: A2A owns around 400 km of high and medium pressure gas transportation network through the company Retragas, covering a total of 69 municipalities in Lombardy, Trentino Alto Adige and Piedmont.

#### Figure 170 | Technical quality - electricity

	MILAN											
SERVICE CONTINUITY	High concentration area			Medium concentration area				L	Low concentration area			
INDICATOR	2012	2013	2014	AEEGSI Objective 2014	2012	2013	2014	AEEGSI Objective 2014	2012	2013	2014	AEEGSI Objective 2014
Average minutes of interruption per year for LV users due to long interruptions without notice	27.59	24.83	23.79	26	69.41	45.56	44.63	44	na	na	na	na
Average number of interruptions per year for LV users due to long interruptions without notice	1.27	1.3	1.21	1.44	2.84	1.65	1.96	2.04	na	na	na	na
						BRE	SCIA					
Average minutes of interruption per year for LV users due to long interruptions without notice	6.87	7.97	6.34	25	16.27	15.42	14.49	40	28.97	25.6	29.56	60
Average number of interruptions per year for LV users due to long interruptions without notice	1.09	1.08	1.06	1	1.63	1.63	1.61	2	2.51	2.34	2.60	4

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

A2A people

## The customers and public served

Suppliers Institutions and local communities

Statement of compliance

Figure 171 | Electricity emergency interventions

	MILAN			BRESCIA			
	2012	2013	2014	2012	2013	2014	
No. of MV customers with more than 6 interruptions a year for high-concentration areas	12	26	25	0	0	2	
No. of MV customers with more than 8 interruptions a year for medium-concentration areas	0	0	0	0	0	0	
No. of MV customers with more than 9 interruptions a year for low-concentration areas	na	na	na	5	4	6	

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 **www.a2aretielettriche.eu**.

Figure 172 | Commercial quality - electricity: specific indicators - Milan/Brescia area

	AEEGSI Level	Service provided within the timeframe specified (%)			Average time for service provision		
		2012	2013	2014	2012	2013	2014
Time for making estimates for work on the LV network	20 working days	94.19%	98.34%	99.54%	10.32	7.88	7.33
Time for performing simple jobs	15 working days for LV 30 working days for MV	99.25%	98.92%	99.57%	6.83	5.28	5.56
Time for switching on supply	5 working days	98.47%	99.49%	99.81%	1.72	1.45	1.13
Time for switching off supply	5 working days for LV 7 working days for MV	98.75%	98.86%	99.68%	1.77	1.27	0.94
Time for switching on supply again after suspension for default	1 week day	98.34%	98.73%	99.41%	0.25	0.26	0.16
Punctuality band observed for appointments	2 hours	99.30%	99.73%	99.64%	-	-	-
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	92.11%	90.69%	87.99%	1.82	1.79	1.97
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	94.50%	95.92%	97.06%	1.91	1.49	1.83
Time for communicating the result of measurement group checks	15 working days	96.32%	99.66%	99.57%	8.43	7.35	8.51
Time for communicating the result of voltage checks	30 working days	95.00%	71.43%	100.00%	18.16	17.50	29.50

Figure 173 | Commercial quality - electricity: general indicators - Milan/Brescia area

TYPE OF SERVICE	AEEGSI		Service provided within the timeframe specified (%)					
	Level LV	2012	2013	2014				
Percentage of requests to perform complicated jobs which were completed within a maximum of 60 working days	85%	99.24%	99.42%	99.91%				
Percentage of justified replies to written claims or information requests communicated within a maximum of 20 working days	90%	98.18%	91.74%	95.29%				

TYPE OF SERVICE	AEEGSI		Service provided within the timeframe specified (%)					
	Level MV	2012	2013	2014				
Percentage of requests to perform complicated jobs which were completed within a maximum of 60 working days	90%	100.00%	100.00%	98.80%				
Percentage of justified replies to written claims or information requests communicated within a maximum of 20 working days	95%	100.00%	98.88%	97.18%				



Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

A2A people

# The customers and public served

Suppliers
Institutions and local communities

Statement of compliance

Figure 174 | Technical quality - gas

TVDF OF SERVICE	Base	Reference		Actual le	evel 2012			Actual le	evel 2013		Actual level 2014*			
TYPE OF SERVICE	level	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%	100%	99%	40%	100%	100%	100%	44%	71%	100%	99%	57%
Annual percentage of the network under low pressure inspected	20%	70%	87%	58%	25%	69%	89%	66%	36%	72%	68%	74%	61%	90%
Average number of leaks localized per km of network inspected	0.8	0.1	0.07	0.12	0.01	0.28	0.023	0.06	0.12	0.25	0.084	0.065	0.068	0.189
Average number of leaks localized per km of network following third party reports	0.8	0.1	0.32	0.13	0.05	0.24	0.308	0.13	0.06	0.25	0.21	0.085	0.45	0.042
Conventional number of measurements of the degree of odorization of the gas per thousand end customers	0.19	0.5	0.58	1.1	3.63	1.35	0.6	1.08	3.3	1.38	0.895	1.55	3.66	1.38
No. of end customers with notice greater than or equal to 3 days for interruption without notice*	/	/	17,584	112	341	0	15,806	186	201	0	96,785	NA	NA	21
No. of end customers with notice of less than 3 days for interruption with notice*	/	/	2,281	187	138	0	4,283	298	0	0	8,999	NA	NA	10

<sup>\*</sup> The 2014 figures have been included under the new resolution 574/13 of the AEEGSI, which provides for the inclusion in these indicators of some new categories of requests: provision requests of end users; interventions following telephone calls for emergency intervention; replacement of the measurement group for a single end user with duration of the interruption of the gas supply of less than two hours. The values are therefore not comparable with previous years.

## Figure 175 | Gas emergency interventions

TYPE OF SERVICE	Base	Reference		Actual le	evel 2012			Actual le	evel 2013			Actual le	evel 2014	
TYPE OF SERVICE	level	level	Milan	Brescia	Bergamo	Varese	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%	97.70%	99.60%	100.00%	98.84%	97.55%	99.41%	100.00%	99.75%	98.17%	99.39%	100.00%	99.46%

Figure 176 | Commercial quality - gas: specific indicators - Milan area, Brescia, Bergamo and other provinces

TYPE OF SERVICE	AEEGSI Level		provided wi		Average time for service provision		
		2012	2013	2014	2012	2013	2014
Time for making estimates (simple jobs)	15 working days	95.91%	97.36%	99.18%	7.95	7.38	6.34
Time for performing work (simple jobs)	10 working days up to 25D 15 working days over 40D	95.71%	96.68%	97.50%	5.72	5.54	6.12
Time for making estimates (complicated jobs)	40 working days	95.46%	93.35%	93.11%	19.51	18.37	15.47
Time for switching on supply	10 working days up to 25D 15 working days over 40D	98.66%	99.74%	99.89%	4.44	3.48	2.79
Time for switching off supply	5 working days up to 25D 7 working days over 40D	98.96%	95.92%	99.86%	3.39	3.49	3.05
Time for switching on supply again after suspension for default	2 weekdays	97.68%	97.35%	96.59%	1.13	1.14	1.15
Punctuality band observed for appointments	2 hours	99.83%	99.75%	99.83%	na	na	na

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

A2A people

The customers and public served

Suppliers
Institutions and local communities

Statement of compliance

## Figure 177 | Commercial quality - gas: specific indicators - Varese

TYPE OF SERVICE	AEEGSI Level		provided w ame specif		Average time for service provision		
		2012	2013	2014	2012	2013	2014
Time for making estimates (simple jobs)	15 working days	100.00%	100.00%	100.00%	7.3	8.2	6.7
Time for performing work (simple jobs)	10 working days up to 25D 5 working days over 40D	100.00%	100.00%	100.00%	1.85	2.1	2.5
Time for making estimates (complicated jobs)	40 working days	100.00%	100.00%	100.00%	17.7	5.1	3.7
Time for switching on supply	10 working days up to 25D 15 working days over 40D	99.95%	100.00%	100.00%	1.6	1.15	1.3
Time for switching off supply	5 working days up to 25D	100.00%	100.00%	100.00%	2.1	1.9	2.1
7 working days over 40D	100.00%	100.00%	100.00%	100.00%	1	0.84	1
Time for switching on supply again after suspension for default	2 weekdays	100.00%	100.00%	100.00%	na	na	na
Punctuality band observed for appointments	2 hours	100.00%	100.00%	100.00%	na	na	na

## Figure 178 | Gas commercial quality: general indicators

SERVICE PROVIDED WITHIN THE TIMEFRAME SPECIFIED (%)	AEEGSI Level		Brescia, Be other provi	_	Varese		
		2012	2013	2014	2012	2013	2014
Percentage of results of measurement group tests at the customer's request communicated within a maximum of 20 working days*	85%	86.98%	96.82%	98.53%	100.00%	100.00%	100.00%
Percentage of justified replies to written claims or information requests communicated within a maximum of 20 working days	90%	83.71%	87.23%	93.58%	100.00%	100.00%	100.00%
Percentage of justified replies to written claims or information requests communicated within a maximum of 20 working days	90%	92.27%	95.02%	96.79%	100.00%	100.00%	100.00%

 $<sup>*</sup>From \verb|o1.01.2014| this indicator became of Specific Level; for a comparison with previous years it was still kept in the table of general indicators.$ 

## District heating and heat management

## Figure 179 | Geographical distribution of the district heating service

	2012		20	013	2014		
	Customers* (no.)	Volume served (Mm³)	Customers* (no.)	Volume served (Mm³)	Costomers* (no.)	Volume served (Mm³)	
Brescia and province	20,373	41.3	20,430	41.6	20,634	41.8	
Bergamo and province	390	4.7	451	5.2	518	5.8	
Milan and province	2,607	37.2	2,776	39.8	2,945	4.4	
Varese and province	141	2.6	143	2.6	145	2.7	
TOTAL	23,511	85.8	23,800	89.2	24,242	92.7	

<sup>\*</sup>They may correspond to a single residential unit in the case of independent heating or a whole building in the case of centralized heating.

## **Integrated water service**

## Figure 180 | Extension of integrated water service

	Aqueduct service			Water purification service			Sewage service		
	2012	2013	2014	2012	2013	2014	2012	2013	2014
Municipalities	108	108	108	66	66	66	69	69	69
Total customers	278,336	285,530	280,092	184,848	191,277	186,371	187,137	193,585	188,683
Inhabitants	812,280	812,814	813,466	549,188	549,296	546,937	563,203	563,809	564,051

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

A2A people

# The customers and public served

Suppliers
Institutions and local communities

Statement of compliance

Figure 181 | Online transactions of A2A Ciclo Idrico

	2012	2013	2014
New activations electronic bill	1,352	758	765
No. payments online	23,107	34,561	39,549
No. self-readings	894	5,902	8,777

## **Aqueduct service**

Figure 182 | Urban sanitation service: collection and sweeping

	2012	2013	2014
Municipalities served	89	88	93
Population served	2,326,391	2,437,207	2,428,933

Figure 184 | Waste disposal and other private services

	2012	2013	2014
Municipalities served	688	688	1,047
Companies served	1,320	1,203	1,960

Figure 183 | Paid services: waste disposal and other private services

CUSTOMERS SERVED	2013	2014
Amsa	8,298	8,045
Aprica	2,270	1,290

### Figure 185 | Customer satisfaction Amsa Milan

<b>EVALUATION OF AMSA SERVICES</b> (scores in tenths)	2012	2013	2014
Urban waste collection	7.94	8.15	8.26
Overall organization of waste collection	7.84	8.03	8.01
Frequency of removing the various fractions of waste	7.80	8.02	8.09
Information about the waste collection service	7.23	7.99	8.13
Noisiness of the service	6.83	6.83	6.73
Obstruction and inconvenience caused to traffic by collection vehicles	6.70	6.54	6.59
Street and pavement cleaning	6.72	6.82	6.76
Speed of the cleaning service and the presence of vehicles on the street	7.26	7.29	7.27
Means by which the cleaning service is organized	7.02	7.18	7.14
Frequency of cleaning of streets and sidewalks	6.97	6.95	6.95
Washing of streets	7.21	7.21	7.23
Cleaning service market areas	7.83	8.13	8.15
Bulky waste collection service	8.50	8.58	8.97
Bin emptying	6.85	6.97	6.98

## Other services

## Figure 186 | Public lighting

	2012	2013	2014
Lighting points (no.)	199,209	202,564	204,498
Lighting towers (no.)	479	466	466
Lamp posts (no.)	122,288	124,442	139,427
Suspensions (no.)	10,634	10,646	11,214
Architectural sights lit (no.)	98	98	98

#### Figure 187 | Traffic lights - Milan

	2012	2013	2014
Traffic light regulators (no.)	719	724	726
Supports (no.)	11,000	10,430	11,288
Traffic light lanterns (no.)	21,620	21,997	22,044
Lamps (no.)	64,311	54,465	65,662

#### Figure 188 | Safety equipment - Milan

	I	I.	
	2012	2013	2014
Video cameras (no.)	1,239	1,293	1,573
Traffic monitoring (no.)	160	160	160
Environmental monitoring (no.)	12	10	-
SOS bollards (no.)	148	152	174
Digital islands (no.)	na	na	27
WIFI Antennas (no.)	na	na	1,100

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

A2A people

The customers and public served

Suppliers Institutions and local communities

Statement of compliance

# Identity Card At December 31, 2014

# **5.3** | Suppliers



Supplier validation processes performed during the year: 3,926 (+ 66% compared to 2013)



72% of tenders were managed by means of e-procurement



52% of the value of contracts for urban sanitation services entrusted to third parties was assigned to social cooperatives and non-profit organizations



Alignment process completed of the General Conditions of Purchase in all Group companies.

More than **4,000¹ validated suppliers** on the A2A portal (+12% compared to 2013). They are mainly small and medium-sized enterprises, most of which validated for multiple categories.

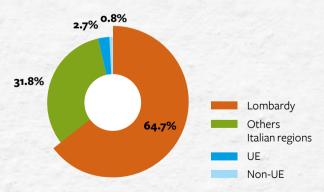
Of validated suppliers 53% received at least one order in 2014. In the year, 7,542 orders were issued by the Group companies, for a total of over 830 million euro and 3,788 suppliers were activated with new orders/contracts. 87% of the value of orders2 was assigned to suppliers with at least a valid qualification (66% of the number of orders).

- 1 Suppliers with at least one ongoing validation at December 31, 2014. Not included are suppliers validated on the Edipower Portal, as yet not fully integrated with the Group Portal.
- 2 Excludes orders made by the plant in Acerra of A2A Ambiente (not subject to the Group's validating procedure) and intercompany contracts.

Figure 189 | Breakdown of orders by type

TYPE	Number of orders	Order amounts (€)
Supplies	3,250	276,124,834
Works	1,535	260,742,046
Service	2,757	293,360,632
TOTAL	7,542	830,227,512

Figure 190 | Breakdown of orders by geographical area



## Material issues for "supplier" stakeholders

# ISSUE 2 - RESPONSIBLE MANAGEMENT OF THE SUPPLY CHAIN

The supply chain is a key aspect for the management and maintenance of the business of a company. For A2A, it is important to relate in the best way possible with their suppliers, also with a view to management of the supply chain in terms of sustainability. The main objectives include: ensuring purchase performance thanks to an effective and efficient supplier base; enhancing suppliers of the territory where the Group operates and/or categories of disadvantaged suppliers (ex.: cooperatives); selecting suppliers also based on respect for environmental and social aspects and safety at work.



Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

A2A people
The customers
and public served

#### **Suppliers**

Institutions and local communities

Statement of compliance



## 5.3.1 | A2A and its value chains

The A2A Group is present with its activities in three different value chains:

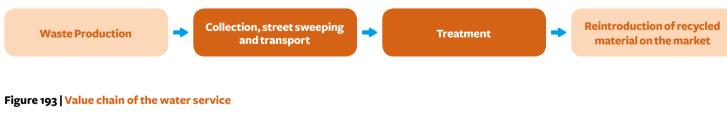
- **energy** (electricity, gas and heat through the district heating network): from production to distribution, to the sale to the end user;
- **integrated waste cycle**: from collection to processing of municipal and special waste;
- water service: from collection to distribution to the end user.

#### Figure 191 | Energy value chain

A2A external activities
A2A internal activities



#### Figure 192 | Value chain of the integrated waste cycle





## Energy, integrated waste cycle, water service,

are the value chains in which A2A is present



In 2014, orders for these three value chains, were as follows:

Figure 194 | Number of orders and value of orders by value chain \*

TYPE	Number of order	Total orders (€)
Energy	3,430	382,901,705
Environment	3,425	363,145,783
Water	322	15,115,081
Other	364	69,064,942
TOTAL	7,542	830,227,512

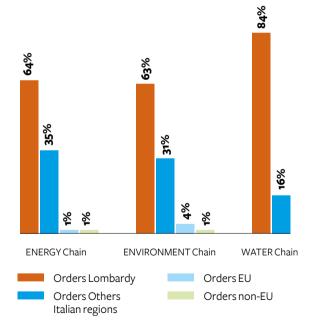
\* For the calculation of the number of orders and total orders, divided by the 3 value chains, all companies operating in the 3 different areas were considered, with the inclusion of A2A S.p.A. in the Energy chain (therefore, corporate activities were also included excluding IT services) and the value equal to 1/3 of the number of orders and the total orders of Aspem S.p.A. for each of the 3 chains (Aspem manages gas distribution, environmental sanitation services and integrated water services in Varese and province). The category "other" includes A2A Logistica, Selene S.p.A. (active in telecommunications) and the IT services of A2A S.p.A.

As shown in table, the value chain with the most impact on the supply chain is that of energy, where the figure does not include purchases of fuel, followed by the environment chain. The "energy chain" the most relevant company in terms of total orders is the parent company A2A S.p.A., which meets the needs both in corporate and in energy production: in 2014, the most substantial expenditure was relating to the plant for reducing nitrogen emissions at the Monfalcone thermoelectric plant. For the "environment chain" the company with the greatest

number of orders is A2A Ambiente, with a significant expense in the waste treatment process and plant maintenance. The "Water chain" is represented by A2A Ciclo Idrico and, in part (see previous note) by Aspem S.p.A., whose total orders focused on maintenance of the networks and water purification plants.

For all three value chains more than **90%** of total orders concerned Italian suppliers, which for the "Water chain" represent **100%**.

Figure 195 | Geographical breakdown of orders by value chain



In 2014, over 896 million euro was spent for the purchase of fuel, relative to the supply of coal, heavy fuel oil, diesel and natural gas. Purchases were made exclusively with European suppliers, for a total of 92 suppliers. Specifically, the coal purchased was: 31% from Russia, 29% from Colombia and 40% from Kazakhstan.

## 5.3.2 | Tender procedures

As part of the works, supply and service tenders in the ordinary and special sectors (urban sanitation, electricity grids, gas and district heating) are governed by European Community regulations that ensure the application of the provisions of Italian Legislative Decree 163/06, "Code for public contracts relating to works, services and supplies implementing Directives 2004/17/EC and 2004/18/EC", A2A has adopted a **system for ascertaining the suitability of enterprises**, in order to ensure the existence of the technical, economic and financial capacity that meet the requirements of the Code.

The main tools of information to suppliers about the buying activity of the A2A Group are:

- the **website** and the **Official Gazette** of the Italian Republic and/or the EU Gazette for European validation systems and Calls for Tenders;
- letters of invitation, in case of non-public tenders; in these cases the potential participants are selected mostly from the Group's Vendor List, based on qualifications held in the product classes of reference. In parallel, to the benefit of the competition, scouting activities are performed to identify possible alternative suppliers. Companies chosen are invited to undertake the validation process to join the List of Suppliers.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

A2A people

The customers and public served

#### Suppliers

Institutions and local communities

Statement of compliance



In 2014, the Group continued its dematerialisation of procurement processes through the use of **e-procurement systems**, thanks to which **72%** of the tenders was conveyed, also to further guarantee transparency and traceability of all stages of the tender. Finally, the use of the **MicroPurchases catalogue** was further extended: a service at the disposal of all Group companies to facilitate the purchasing process for indirect materials (office supplies, hardware, tools, plumbing equipment, etc.), with an increase in the number of suppliers involved and of internal users authorized to use the service.

In 2014, **7,935** electronic orders were handled online for a transaction volume of almost 3 million euro; which means: complete dematerialization of the process for generating orders and optimizing the management of the passive cycle, by reducing the number of invoices.

## 5.3.3 | Supplier validation

The relationship between A2A and its suppliers is based on respect for the principles of economy, efficiency, quality, fairness, equal treatment, transparency and impartiality. The Code of Ethics defines the guidelines that apply to all Group companies, on procurement and supplier validation. The same guidelines have been incorporated in internal procedures governing its operation in accordance with the organizational model pursuant to Legislative Decree 231/2001. In the selection and validation of suppliers A2A is open to all companies interested in participating in tenders called by the Group, ensuring the maintenance of a Qualified Vendor List by product category, which buyers can refer to for the definition of "vendor list" of a tender.

This process activates **the prior assessment** of the supplier.

To submit application for the A2A Vendor List, suppliers are required to register on the portal "www.pleiade.it/vendor\_a2a" and fill out a questionnaire for general, financial and organizational information, supplementing it with data and certificates relating to quality, environment and safety. For the evaluation of candidates, of fundamental importance are the references from companies for similar activities carried out recently, and the data relating to the economic-financial stability of the enterprise, given by a specialist external provider, and other publicly available data.

No charge is required to be able to apply for the Vendor List. This is to encourage a large number of companies in the tenders called by the Group, making it possible for them to become part of the Vendors List of A2A gaining visibility in a broad context such as that in which the Group operates.

During 2014 the Group database for suppliers was consolidated, thereby improving the level of integration and convergence between company processes and systems. The supplier portal currently includes a little under 4,000 registered and validated suppliers in at least one product category, and of these 53% received at least one order in 2014. 59% of registered suppliers are based in Lombardy, 39% in other Italian Regions, 1.6% in other EU countries, and 0.4% in countries outside the EU.

Vendors that register on the A2A portal are mostly small/medium-sized Italian companies.

Figure 196 | Validated suppliers by geographical area

	2013	2014	Change % 2014/2013
Lombardy	2,316	2,435	+5%
Other Italian regions	1,302	1,607	+23%
EU	41	65	+59%
Non-EU	13	14	+8%
TOTAL	3,672	4,121	+12%

Figure 197 | Validated suppliers by number of employees

	2013	2014	Change % 2014/2013
Micro-company (1-10 employees)	1,118	1,342	20%
Small business (10-50 employees)	1,399	1,495	7%
Medium-sized company (50-250 employees)	606	663	9%
Large company (over 250 employees)	220	233	6%
Information not available*	329	388	18%
TOTAL	3,672	4,121	12%

<sup>\*</sup> Data not provided by the supplier at the registration phase and not included in the other databases used.

## (V)

## Global Vendor Rating

For the vendor assessment, A2A uses a synthetic indicator (Global Vendor Rating), obtained from the weighted average of the following components:

- economic and financial stability, it assesses the risk of default of the supplier and, consequently, the risk of cessation of supply for the Group; the assessment may also be based on information provided by leading financial evaluation companies;
- **business characteristics**, evaluates the general characteristics of the supplier declared in the Company Details questionnaire such as, for example, the availability of certifications;
- technical adequacy, evaluates the capabilities and technical experience of the supplier on the specific category, based on the statement made by the Supplier in Category Questionnaire and possibly as determined by Audit:

- operating performance with the Group (Total Vendor Rating), assesses the performance of vendors on a single contract with A2A regarding:
- punctuality
- o administrative accuracy
- o quality (compliance)
- o service level
- o safety-related conduct
- o environmental conduct

The results of the vendor rating are managed by Group Procurement Management via a dash board that is able to highlight **inadequate** performance which might lead, on occasion, to steps being taken against the supplier, including: suspending validation, watch listing, blacklisting, etc.



The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

A2A people
The customers
and public served

#### Suppliers

Institutions and local communities

Statement of compliance



# 5.3.4 | Sustainable supply chain management and certification requirements

The systematic collection of information relating to supplier certification, i.e. **ISO 9001** (Quality), **ISO 14001** (the environment), **OHSAS 18001** (Safety) is carried out by the Group companies, in order to help increase the number of validated suppliers with certification.

At December 31, 2014 **58%** of validated suppliers (+12% compared to 2013) claimed to have at least one certification among those mentioned above.

At the Group level, **70%** of the value of the orders issued in 2014 went to suppliers with at least one form of certification.

Figure 198 | Validated suppliers, by certification held

	2013	2014	Change % 2014/2013
ISO 9001	2,115	2,360	+12%
ISO 14001	618	756	+22%
OHSAS 18001	327	455	+39%
AT LEAST ONE CERTIFICATION	2,130	2,377	+12%

# A2A and Global Compact for Sustainability of suppliers

A2A, along with other industry partners, was among the first to join the Work group "Sustainable Supply Chain", actively participating in the drafting of the self-assessment questionnaire and implementation of the sharing platform, accessible via the link that A2A has made available on its website in the Suppliers section.

The questionnaire covers the 10 principles of the Global Compact (TENP) and the result is expressed both with an overall score and with partial scores of each subject area (human rights, labor, environment, fight against corruption), to be able to identify for each supplier areas of greatest strength or weakness.

Vendors who proceed with the request for validation on the A2A portal can thus also respond to the **TenP**, questionnaire obtaining the following advantages:

- become aware of the importance of sustainability in the conduct of its business;
- measure up to the "best practices" of the business sector;
- stimulus to continuous improvement, even through support mechanisms through TenP;
- obtain competitive advantage with respect to its customers;
- visibility with respect to all partners participating in the TenP.







## Amsa and green procurement

Amsa is highly focused on ecological purchases. The following are some examples:

- vehicle fleet: 70% of the means of Amsa are Euro 4 or higher or natural gas or electric:
- technical cleaning cloths: are washed and/or replaced periodically and thus reused;
- cleaning products for public parks: preference for environmentally friendly products that are not harmful for organisms and plant species;
- cleaning of streets and squares: in entrusting cleaning services and application of the protective product of some squares, Amsa requires that manholes and/or gratings are protected to prevent the dispersion of hazardous substances into the sewer;
- bins and containers for waste collection: preference for those composed wholly or largely of recycled plastic, as well as bags blacks for bins;
- oil absorption products: sepiolite, of mineral origin and therefore natural, is used.

In the allocation of recovery, disposal and transport services, suppliers with ISO14001 certification are chosen, given the same economic conditions.

## 5.3.5 | Disputes with suppliers

In 2014, 51 labor disputes were in progress or were completed with employees of contractors who provided service as part of contracting work commissioned by A2A Group companies:

- 13 for compensation for damages resulting from illnesses allegedly contracted during the contract work;
- 11for requests for the establishment of an employment relationship by the client company;
- 19 for payment of salary differences claimed against the contractor, and the A2A Group company in the role of principal, because of joint liability;
- 1 for non-payment of bills caused by non-fulfilment by the supplier;
- 7 for damages caused by their non-employment by the contractors and the client company (jointly).

**+12%** (compared to 2013) certified suppliers



The A2A Group

Strategies and policies for sustainability

Economic responsibility

# Social responsibility

Environmental

responsibility

A2A people
The customers
and public served

#### **Suppliers**

Institutions and local communities

Statement of compliance

# **5.4** Institutions and local communities



During the year, over 22,500 visitors, including many schools, registered on the 37 different Group websites



More than **4,500** visitors to the Casa dell'Energia e dell'Ambiente



19,000 students from 2,200 schools involved in A2A Progetto Scuola

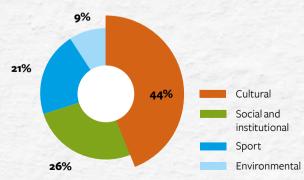


More than 50 local initiatives in collaboration with Consumers or Environmentalist Associations

Figure 199 | Funding to the territory in the last three years

Contributions to theatres and foundations	3,340,000	3,100,000	3,100,000
Donations	1,669,349	284,650	29,400
Sponsorships	1,471,107	1,759,114	1,310,945
(amounts in euro)	2012	2013	2014

Figure 200 | Breakdown of sponsorships in 2014 by area of activity





## Material issues for "institutions and communities" stakeholders

# ISSUE 16 - SUPPORT FOR INITIATIVES AND PROJECTS IN THE REGION

The support to the territory and community of reference in the areas in which the Group operates is a constant element of its activities. The commitment of A2A is aimed at responsible development, able to have positive effects even within the territories in which it operates in social, economic and environmental terms.

# ISSUE 17 - ENVIRONMENTAL EDUCATION PROGRAMS AND INITIATIVES

Environmental education and related projects are forms of investment for future generations. For public administrations, these activities have become fundamental, so as to insert them into calls for tenders for the award of public services. Sustainability and environmental education are well-established issues, involving all stakeholders and are among the fundamental objectives of the 2020 Europe agenda. Environmental education will be introduced in schools as a subject already starting from the school year 2015/2016.

#### **ISSUE 19 - PUBLIC POLICY**

The report and the comparison with the public policy has a key role for the Group's activities. It is a relationship that allows dealing with, at various levels and through specific round tables, the many issues of the energy and environment sector involving multiple players within the institutions, both nationally and supranationally.

# ISSUE 24 – INTERNAL AND EXTERNAL COMMUNICATION TO STAKEHOLDERS

Communication is an essential tool to be able to share with its stakeholders the actions, objectives and the performance of the company within Sustainability issues. A2A uses multiple channels and tools to communicate with its interlocutors of reference, always acting with fairness and transparency.

# Citizens, community associations, institutions

are among the main interlocutors that A2A addresses



Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

A2A people

The customers and public served

Suppliers

Institutions and local communities

Statement of compliance

## 5.4.1 | Public policy

Relations and discussions between A2A and institutions (local, regional, state, supranational), which will translate into dialogue and cooperation, are of great importance for the Group.

The issues covered are linked to the Group's activities and are also addressed to the search for proactive actions, able to positively engage territories and communities where A2A is present with its plants and services.

Discussions are often by means of working tables, during which energy and environmental issues are addressed. Normally, these interventions involve **direct dialogue** with members of the parliamentary committees of the House and Senate concerned with the issues, as well as officials and staff of the Ministries concerned (in particular: Prime Minister's Office, Ministry of Economy and Finance, Ministry of Economic Development, Ministry for the Environment, Land and Sea Protection). If the issues involving the companies of the sector or the entire sector preference is for **collaboration with the trade** associations of which the company is part (Assoelettrica or Federutility and Federambiente).

The instrument that defines and regulates this activity is the **Code of Ethics** of A2A.

In 2014, the national rules and issues that had the greatest impact on the A2A Group were:

- the law on district heating;
- the inclusion of sites for energy recovery from waste among the strategic infrastructure of national importance;
- procedures and terms for the renewal of hydroelectric concessions in Italy;

 measures for the reorganization of local government aimed at strengthening and consolidating the sector of subsidiaries.

#### Local Authorities

The relations with the institutions are not restricted to only the central government or to activities related to supranational bodies, but also involve the **local authorities with which A2A holds important and fundamental dialogue**, marked by a strong foundation of collaboration. This approach leads to the creation of several joint interventions, with a positive impact at local level.

This area includes the activities of so-called observers: bodies set up by the various categories of stakeholders, who perform monitoring and formulate proposals for improvement on issues concerning the environment and public health.

In Brescia, for example, the municipal administration, given the interest shown by citizens towards the issue of the quality of the water distributed by the municipal aqueduct and attention devoted to the subject by the media, in January 2014 **the Observatory "Water Common Good"** was established with the aim of addressing this issue in several aspects (health, environment, communication), involving representatives of the various stakeholders and A2A Ciclo Idrico, the A2A Group company that manages Integrated water services in Brescia and other towns of the province.

Representatives of A2A Ambiente are part of the Observatory **on the waste-to-energy plant**, also set up by the city of Brescia, which aims to improve access to

information on the operation of the plant to the various stakeholders. The activities include the preparation of reports on the operation of the waste-to-energy plant, in order to provide citizens and all stakeholders accurate and timely information on matters such as: treated materials, waste, air emissions, energy efficiency, etc., and on the progress of differentiated collection.



For more information on the Observatory, please visit **www.comune.brescia.it** 



## **Teams against deterioration**

A collaborative project between Amsa and the City of Milan has made it possible to create a new intervention group: the "Teams against deterioration", which support operators of Amsa in daily street cleaning, waste disposal, collection of objects, signalling of homeless people in difficulty. The teams, recognizable by the yellow bib that says "Un lavoro incomune", are active in 13 areas of the city to provide the community with assistance

in the monitoring of areas repeatedly mentioned by the citizens themselves as particularly critical. The social value of "Teams against deterioration" lies not only in their function, but also in their composition. People "enrolled" have in fact been unemployed for at least two years, with an average age of 50 and long followed by the Public services for adults in difficulty.



#### **Floods in Milan**

To address the emergency of the flooding of the Seveso and Lambro in November 2014, **Amsa** and **A2A Reti Elettriche** (coordinated by the Department of Safety of the Municipality of Milan, with the Local Police and Civil Protection) have operated for the removal of mud, the unblocking of the wells in the affected areas and the reactivation of the electric current. Citizens have been kept up to date on the progress of the work via normal channels of communication and through the Facebook and Twitter profiles of A2A and AMSA.

#### Sector Authorities and Trade Associations

The activities of the A2A Group (Energy, Heat & Services, Environment and Networks) are regulated by the sector Authority, namely: **the Authority for Electricity, Gas and Water System** (AEEGSI) and the **Competition and Market Protection Authority** (AGCM), with which A2A maintains ongoing relationships.

A2A is part of **Utilitalia**, the Association whose creation was announced at the end of 2014, following approval of the merger between Federambiente (environmental sanitation) and Feder Utility (energy, gas and water), chaired by the Chairman of A2A Giovanni Valotti, representing all local public services companies with industrial value.

A2Ainteractsconstantlywithnumeroustradeassociations, regulatory bodies and supervisory authorities such as the **Energy Services Operator** (GSE); the National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA), the RSE (Research on the Energy System), etc. The Group's environmental companies are instead part of the specific national and international associations of the sector.

In addition, A2A is part of **Confindustria**, within which it adheres to **Association** of Electricity Enterprises).

# Consumer protection and environmental associations

FortheA2AGroup,the collaboration with the Consumers' and Environmental Associations is developed through a proactive relationship consisting of dialogue and discussion, with the intention to initiate actions, even in partnerships, aimed at the promotion and dissemination of issues related to sustainability, the protection of consumers and the territory.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

Suppliers

A2A people The customers and public served

Institutions and local

Statement of compliance

This activity is carried out nationally, regionally and locally, through interaction with the 18 Consumers' Associations recognized by CNCU (National Council of Consumers and Users, chaired by the Ministry of Economic Development), with the most important environmental associations nationwide and the various committees in the area in which the Group operates.

Various tools are used: periodic meetings with the individual associations, work groups dedicated to projects and activities required by law, plant visits, presentations of activities for customers-consumers, participation in seminars, conferences, workshops on issued related to consumerism organized by the various associations and organizations committed to these issues.

In 2014, there were more than 50 initiatives, including:

- adhesion of A2A as partners in the projects financed by the Lombardy Region for **Expo 2015** in collaboration with the Consumers' Associations;
- in Brescia meetings and conferences on water quality, the project for the reduction of hexavalent chromium and the related communication prepared by A2A and distributed to all citizens;
- in Acerra (Naples) meetings dedicated to issues regarding the business of A2A in Campania: waste cycle, role of STIR (Waste Shredding, Sifting and Packaging Plant), renovation of the IEA and EMAS certification of the WTE plant project for its expansion;
- also in Acerra (Naples) the project "Collect, Transform, Create" continued in schools and the project "Ecoreporter" was launched in cooperation with four associations active in Campania:



### **Projects for Expo2015**

- "L'expo del consumatore risparmia(ti) lo spreco". Started with Adiconsum, Cittadinanzattiva and Movimento Consumatori, the project is focused on the adoption of correct conduct and consumption patterns consistent with sustainability and environmental protection and minimization of food waste. At the Casa dell'Energia e dell'Ambiente an event was organized for the presentation of the results of the survey on food waste, in collaboration with Banco Alimentare, Università Cattolica and Siticibo.
- "The Expo of consumers. Food: energy for life". Launched in collaboration with Movimento Difesa del Cittadino, Assoutenti, Confconsumatori and Unione Nazionale Consumatori, the project aims to promote models of conduct and proper and sustainable consumption, also through the creation of videos on the waste collection cycle to be disclosed during the Expo.



Amici della Terra, ACSSA, Consumers' League and Adiconsum (described more fully in the section "Programs and initiatives for environmental education");

- in Catanzaro meetings were held for the verification and discussion of issues of fish restocking and drainage of Silani Lakes;
- the activity of the Consumers Forum of Friuli Venezia
   Giulia with participation in the conference "CSR:
   Businesses and consumers involved in a new
   challenge."

As for other activities, see the description of stakeholder engagement initiatives activated in 2014 (pages 40-45).

#### Universities and Research Institutes

A2A actively collaborates with the academics world and research institutions, developing projects and new solutions in the energy and environment for process optimization, improving the quality of services and the expansion of supply.

This commitment is realized through projects, in some cases co-funded, resulting also from the continued development and expansion of relations with research institutions such as RSE (Research on the Energy System), **ENEA** (National Agency for New Technologies, Energy and Sustainable Economic Development) and universities, as well as from participation in initiatives and conference aimed at collecting requirements, new ideas and creating new opportunities.

From November 11 to 14 at the Milan Triennale was the eleventh edition of **Urbanpromo**, a landmark event on the issues of urban and territorial marketing, organized by the National Institute of Urban Planning and Urbit. A2A took part supporting the event and bringing two interventions: the first related to the issue of lighting "Led public lighting Project in Milan and Brescia," the second on district heating "Urban district heating systems and networks: the warm heart of the metropolitan city."

## Bicocca makes the difference



without bins and with the ecological islands in the buildings of the campus where experimenting started, has allowed increasing differentiated collection from 25% to 70%. Of this fraction, paper accounts for 50%, plastics 15% and glass 5%. The ecological islands for the disposal of glass, paper, plastic and non-differentiated waste (packaging, food waste, rubber objects) have QR code and can be monitored by users that, with the mobile application **PolApp**, can send "alerts" on the correct differentiation of waste and the filling level.

# Achieve universal access to energy

system. The new waste management model



"WAME & Expo2015"

(World Access to Modern Energy & Expo 2015) association is the result of the alliance between Expo 2015 and eight major

Italian and European energy companies: A2A, Edison, Enel, Eni, E.ON Italia, Gas Natural Italia, GDF SUEZ Energia Italia and Tenaris The association aims to raise awareness worldwide on the difficulties of access to modern forms of energy, promoting research, scientific, technological, economic and social initiatives to overcome the barriers that make it difficult to access modern energy and developing knowledge of best

practices and virtuous projects already in place. Increase the chances of access to modern forms of energy can help facilitate the availability of food and drinking water and significantly reduce levels of extreme poverty in the world, resulting in a real factor of development for humanity.

WAME opens dialogue and participation in the project to the world of NGOs, government and international agencies and all the players involved in the development of this issue.

To explore the themes and activities of the association: www.wame2015.org

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

#### Social responsibility

A<sub>2</sub>A people The customers and public served Suppliers

Institutions and local communities

Statement of compliance

# 5.4.2 | Support for initiatives and projects on the territory

A2A is traditionally very involved with the local territories in which we operate, a closeness that can be seen in the relations and interactions established with communities. In 2014, as in previous years, many initiatives, projects and activities in the social, environmental, sports and cultural areas received the support of the Group. For some of these activities, A2A and Group companies cooperated closely with the local Institutions and associations involved in implementation. In 2014, this commitment led to providing funding of over 4.5 million euro.

#### Interventions in support of social issues

An important place in the Group's activities in favor of local communities is occupied by support for social initiatives and interventions.

The communication campaign "Milan is my future", is dedicated to the foreign communities living in Milan started in 2013 and continued throughout 2014.



with a request to place, inside their premises, some displays with the guides on differentiated collection. The displays were also sent to associations and Italian language schools for foreigners in the Milan area.

To support the activities of the Volunteers' Association "L'Immagine" which gives assistance to families and children in the area south of Milan, in May A2A contributed to the realization, at the Teatro degli Arcimboldi in Milan, the show "Renzo & Lucia: un amore difficile", free interpretation of the novel "The Betrothed" by Alessandro Manzoni, specially set up for the purpose of fundraising.

In the area of support to communities and families, and according to an established relationship with the **Intercultura Foundation**, Edipower has provided **six scholarships** for summer study abroad, reserved for particularly deserving young people from schools in the provinces of Brindisi, Mantua, Piacenza, Sondrio, Turin, Udine. The call was open to students of secondary schools of second grade to improve the knowledge of a foreign language.

## AMSA for sustainable canteens

Already in April 2012, AMSA launched the project "Sustainable Canteens" to reduce food waste and packaging waste. Under this project, since January 2014, thanks to the collaboration of Elior Ristorazione and Siticibo, meals not consumed at the canteen of the Amsa department in Via Silla are donated to the Fondazione Progetto Arca, which assists refugees and homeless people. This canteen has been added to those of via Olgettina and via Primaticcio, which already donate food respectively to Rehabilitation Therapeutic Residential Community "Cascina Verde", historical reality of Milan for people with mental health and social problems related to drug addiction, and the Care Facility "Ambrosiano" for mothers and children in distress.

The initiative promoted by Amsa, CONAI (National Packaging Consortium) and the City of Milan, has raised awareness among "new citizens" on issues of differentiated collection, recycling and respect for the environment, involving the most represented foreign communities in Milan. Some representatives have been selected for each ethnic group, who are engaged in the distribution of 180,000 guides for differentiated collection to their compatriots, explaining the content and clarifying any doubts. The information materials were printed in Italian and in nine languages: **Arabic, Chinese, Sinhalese, French, English, Romanian, Spanish, Tagalog** and **Ukrainian**;

"Milan is my future" was supported by initiatives of multilingual communication, such as billboards, advertisements and a dedicated App called "PULIamo". Also, a letter was sent to the Chairs of the Area Councils

#### Actions supporting culture

For the A2A Group promotion and enhancement of the artistic and cultural heritage of the territories in which it operates have a particular meaning of proximity to local communities.

There are many interventions in this area of significant importance. Among them: the support of **Teatro alla Scala in Milan**, the **Teatro Grande in Brescia**, and the **Centro Teatrale Bresciano** (CTB), in addition to the collaboration with the Municipality of Milan and the Ministry of Arts and Culture for the restoration of the **Sala delle Asse of the Castello Sforzesco in Milan**, which houses Leonardo's paintings threatened by degradation.

Major projects that however do not forget other initiatives, which are also important, worthy of note, and which had the support of A2A such as:

- Exhibition "Don Lorenzo Milani and painting: from his early works to the Holy Schoolboy", at the Diocesano Museum in Milan from May 12 to June 8, 2014;
- the 26<sup>th</sup> edition of the Festival of Villa Arconati, musical and cultural project held in July and promoted by the Municipalities of Bollate, Arese, Garbagnate Milanese and the Province of Milan;
- 51st International Piano Festival of Brescia and Bergamo, one of the major world events dedicated to the piano, which took place from April 25 to June 12 at the Teatro Grande in Brescia and at the Teatro Donizetti in Bergamo, with the presence of highly renowned orchestras and soloists:
- the "Magna Grecia Film Festival", the film festival dedicated to the first works, now in its 11<sup>th</sup> edition and held as usual in July and August in Catanzaro.

#### Actions supporting the environment

Attention to the environment and its protection are cornerstones in the conduct of social responsibility of the A2A Group. A responsibility that, as well as expressing itself through continuous improvement objectives of the performance of its systems and services, is also through initiatives and collaborations in support of the territories in which the Group operates.

In conjunction with the international workshop "Milan Recycle City", June 6, 2014 the City of Milan promoted, in collaboration with Amsa, Comieco, CONAI and Novamont, a day of discussion on the experiences of differentiated collection in large metropolitan areas worldwide with testimonies from representatives of New York City, Berlin, Gothenburg, Ljubljana and the Netherlands. On this occasion, Amsa distributed a free bag of compost obtained from the differentiated collection of wet waste, used as domestic fertilizer to enrich the soil for plants.

A similar initiative was implemented in October, on the occasion of the visit of representatives of C40 (www.C40.org), a network of cities whose objective is the fight against climate change, even through better management of solid waste. The conference was focused on the collection of organic waste in metropolitan areas, including Milan, which is the most extensive and advanced case in Europe.

In October A2A took part in the "National Conference on Waste: closing the circle" organized by the "Amici della Terra" Association with the aim of highlighting the need for integrated waste management, consistent with the broad community aim to develop prevention and recycling in synergy with energy recovery, in order to minimize the role of the landfill.

In May 2014, in the park adjacent to the hydroelectric plant of A2A in Lovero, in the province of Sondrio, the "Day in the Green" was held with the participation of more than 200 primary school pupils from the school "L. Credaro" in Tirano (Sondrio). The event is part of an activity consolidated over years: that of the knowledge of the territory and environmental resources, for which the natural Oasis "Le Piane" and hydroelectric plant in Lovero are considered of excellence.

From May 15 to 17, A2A participated in the Politecnico di Milano seventh edition of the "Festival of Energy": one of the main events in the sector nationally.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

A2A people
The customers
and public served

Suppliers

Institutions and local communities

Statement of compliance

# Collecting energy saving and neon exhausted light bulbs

In October 2014 and ending June 30, 2015, was the experimentation of proximity collection of low energy and neon exhausted light bulbs, promoted by **AMSA** in collaboration with Ecolamp. The project involves about 100 collection points in **Zones 3 and 4 in Milan**: schools of all levels, libraries, recreation centres, offices of the Area Councils, sports facilities, centres for the elderly, parishes and stores that have joined the initiative. The operation was designed to promote the importance of recycling of everyday objects and to increase the collection of electric and electronic waste: already in 2013 Milan won the comparison with the other major Italian regional capital cities, with more than 3 kilograms pro-capita collected. Citizens can dispose of this particular type of waste in the appropriate containers at the sites indicated, without the need to go to one of the 5 recycling centres active in the area. To properly inform those involved in the experimentation, meetings were held and information materials were distributed.

For the 12<sup>th</sup> edition of the **"FAI Spring Days"** A2A opened the doors of the Mompiano Spring (Brescia). Visitors were welcomed by the volunteers of the FAI delegation and technicians of A2A Ciclo Idrico, which accompanied the guests on a guided tour inside the Spring and the area where a part of the Roman aqueduct can still be seen.



Also for 2014, A2A was present at the **28<sup>th</sup> Sondrio Film Festival**, an international festival dedicated to nature documentaries. The objectives of the Festival are the spread of the culture of parks, protected areas and environmental protection, environmental education and the promotion and enhancement of the nature documentary.

#### Actions for sport

For A2A, sport is a value to be protected. For this reason the Group is committed to following up and supporting many activities and sports initiatives. In 2014, the activities supported by A2A have ranged among several areas, giving the opportunity for many athletes and fans to share emotions and passions.

The partnership continued with the sports clubs "Basket Brescia Leonessa" and "Atlantide Pallavolo" (volleyball) of Brescia. Also as part of volleyball, A2A has partnered with the club "US Pallavolo ACLI Ronchi dei Legionari" (Gorizia).

In terms of football, on May 1, at the municipal sports ground in Grosio (Sondrio), the **Trofeo A2A** "Energy in action ... you're good at ...", sporting event was held involving several teams and young athletes of Grouping of Football Schools Valtellina- Valchiavenna-Alto Lario. An important event, such as the well-established **Trophy** "Contea di Bormio" that, in April, led on the slopes of the Valtellina mountains nearly 400 people including athletes, teachers and guests of the 16 secondary schools in the Province of Sondrio and the nearby Valley of Poschiavo (Switzerland). Skiers competed on the slopes of Bormio 2000, while the "brainers" ventured into a test on the subjects of history and geography and the activities of A2A, with a particular focus on sustainability.

Many other initiatives were promoted or supported by A2A in the year. Among these:

- the World Canoe Championship, which took place along the rapids of the river Adda, which runs through Valtellina, natural ground for the best paddlers at international level;
- the two fishing competitions organized in collaboration with the FIPSAS (Italian Federation of Sport Fishing and Underwater Activities) section of Catanzaro:
- the 43<sup>rd</sup> edition of the **Stramilano**, Italy's most

famous non-competitive marathon and one of the most famous in the world, which involved more than 50,000 participants of all ages and abilities, from 5 continents, young and old, professional and amateur, that crossed the streets of the city;

• Kima Trophy, one of the most challenging races in the world in skyrunning, which took place in Val Masino (Sondrio) over a distance of 52 km, difference in height of 4,200 meters and the same downhill, crossing seven passes all above 2,500 meters.

A2A also supported the new challenge of Marco Confortola, well-known Valtellina mountaineer who. after conquering the giant Himalayan Lhotse in Nepal (8,516 meters), the fourth highest mountain in the world, decided to face the **Kangchenjunga** that, with a height of 8,586 meters, is the third highest mountain on earth.

#### Foundations of the A2A Group

The two Foundations headed by the A2A Group are a fundamental connection point for the region and the community through the many activities they carry out: a series of actions, initiatives, projects that open up in social, cultural, educational and environmental areas and that focus, with particular attention, on research and innovation in the energy and environment sectors.

The **AEM Foundation**, among its many activities in social



and cultural areas, is committed **AEM** to supporting scientific research, training and the development of innovative knowledge and skills

in the field of energy and environmental sustainability. The Foundation supports "Progetto Scuola A2A" through its educational activities related to energy and

environmental issues, through lectures and guided visits for students of the schools of Lombardy, which take place at the Casa dell'Energia e dell'Ambiente, in Piazza Po 3 in Milan. It also supports some University Masters on energy and sustainability such as "RIDEF 2.0-Reinventing energy", run by the Politecnico di Milano and Università degli Studi of Milan, and the "MaGER -Master in Green Management, Energy and Corporate Social Responsibility" at Bocconi University.

In 2014, as well as cooperating in the activities of the EnergyLab and Wame Association, the AEM Foundation organized directly or contributed to the creation of important exhibitions and conferences, for example, "The energy of work" and "Science, technique, industry in Italy during the Great War ", in collaboration with the Culture Department of the Municipality of Milan, the Politecnico di Milano and the Micheletti Foundation in Brescia.

The **ASM Foundation** supports, through its ongoing



relationship with the territory in which it operates (Brescia, Bergamo and respective provinces), a series of activities dedicated to social aspects,

the promotion of art and culture, as well as support for training and environmental protection. Among other actions, in 2014, the ASM Foundation contributed to the important and many initiatives organized by the "House of Memory" of Brescia in occasion of the 40th anniversary of the massacre of Piazza della Loggia.

In the area of environmental protection and awareness of ecological issues, the ASM Foundation funded the project "Classe amica" of the FAI, which allows creating a network of cooperation and exchange between the FAI, the students and teachers who visit the facilities of the A2A Group, with the aim of offering an educational

program with high-value content that can be immediately consulted.

In the social sphere the ASM Foundation supported a project of prevention in oncology, designed by the ASL of Brescia and realized together with three other local foundations, funding the set up of a mobile unit operating in the area to raise awareness among the population to adhere to programs of cancer screening.



For more information on the two foundations visit the sites www.fondazioneaem.it and www.fondasm.it

### **AEM e ASM**

Foundations of the A2A Group



Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

#### Social responsibility

A<sub>2</sub>A people The customers and public served

Suppliers

Institutions and local communities

Statement of compliance

## 5.4.3 | Programs and Initiatives **Environmental education**

Taking into account young people for A2A means thinking and working for the future. This is why the Group has always been committed to the world of education, aiming to develop environmental education projects, with the aim of raising awareness of the importance of preserving the ecosystem that surrounds us and safeguard our territories.

Performing this activity with schools for A2A and for Group companies means spacing between issues related to sustainability, the environment, production and energy savings, up to issues related to the collection, recovery and recycling of waste.

Opening the doors of its production facilities to schools and the community is a great opportunity for A2A to raise awareness of the technologies used in the various plants, the company's best practices, the importance for the Group to be able to deal with all its interlocutors, starting with the youngest. This, in brief, is the driving force that has led A2A for many years to collaborate closely with schools, creating specific educational paths, targeted to the promotion and growth of a culture of sustainability.

Central instrument of this way of working is the "Progetto ScuolaA2A", aimed at schools of the territories where the Group is present with its activities. The project begins each year in September, with the sending of a poster- school calendar to approximately 2,200 institutions involved, and continues throughout the school year, focusing each year on specific issues. For the 2014/2015 school year, the theme of the poster-calendar was the fight against food waste, a tribute to EXPO2015. Another tool of environmental education are the visits to Group plants, of which 36 can be visited: 6 WTE plants, 7 treatment/waste disposal plants, 2 cogeneration plants, 9 thermoelectric plants, 5 hydroelectric plants, 6 water cycle plants, 1 gas plant network. These include the educational and museum center Casa dell'Energia e dell'Ambiente (House of Energy and Environment) in Milan Piazza Po 3 (see box on the next page).

Thanks to the "Progetto Scuola A2A", more than 19,000 students in 2014 were able to visit the facilities of A2A and the Home of Energy and Environment.

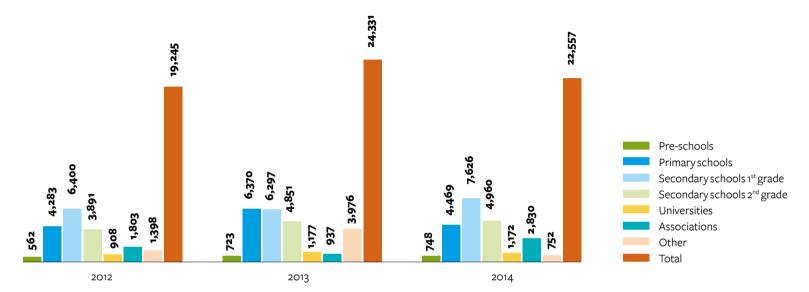
Even in 2014, A2A offered all students and teachers visiting the Group's plants registration with the FAI -Italian Environmental Fund, a foundation that works for the preservation of artistic and natural heritage of our country. In addition to by schools, the facilities of the A2A Group are visited by Italian and foreign delegations and various associations, for a total of over 22,500 visitors in 2014.

## Project "Save-paper" in the Milan schools

At the end of 2014, a new project was launched for differentiated collection of paper in schools, promoted by the Municipality of Milan in collaboration with Amsa and Comieco (National Consortium for the recovery and recycling of packaging made of cellulose). Amsa sent a letter to school principals of 360 primary and secondary schools of 1st grade in the city to inform them of the project and then supervised the distribution of containers to all the schools involved, along with a poster that illustrates the main rules for proper differentiated collection of paper and cardboard and the "cycle of recycling" of paper material. In early 2015, 8,000 classes in Milan received the "Savepaper" box. The project is a valid initiative to further improve differentiated collection: in 2014 Amsa collected 83,102 tons of paper and cardboard in Milan, 12.5% of the total municipal waste collected.



#### Figure201 | Visitors to A2A plants and to the Home of Energy and the Environment



## Casa dell'Energia e dell'Ambiente (House of Energy and the Environment)



The House of Energy and Environment, operational premises of

the AEM Foundation, is primarily a museum open to schools and to the public, where it is possible to learn about and explore the issue of energy and sustainability. However, it is also a reference point for citizens who need information and advice on issues of energy efficiency and home safety.

In 2014, the House of Energy and Environment set up a new educational path for schools: "Waste from discarded material to resource", aimed at raise awareness among children on the recovery and recycling of certain waste and related energy recovery (and not only). With the collaboration of Comieco a laboratory of paper recycling was created, thanks to which participants experience how to produce paper from old newspapers. This

way, young people can learn about, in a practical and engaging manner, the mechanism by which it is possible to obtain a new product starting from waste. In 2014, the structure recorded a turnout of over **4,500** visitors and through its telephone support service, processed more than **1,800** requests for information on various issues of energy efficiency.

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

A2A people
The customers
and public served

Suppliers

Institutions and local communities

Statement of compliance



The leading environmental projects implemented or assisted by A2A during 2014 are set out below, in addition to those already outlined.

### **ENVIRONMENTAL EDUCATION FOR THE YOUNG: MAJOR PROJECTS 2014**

"RICICLART" CONTEST Who: Aprica Where: 25 Municipalities of Valle Sabbia (Brescia) To: Primary schools 1st and 2nd grade	The objective of the contest is to convey, through interventions in class on issues related to prevention and integrated waste cycle, a growing environmental awareness and promote sustainable conduct. 34 classes attended for a total of about 400 students who, under the guidance of teachers, made everyday objects with recycled materials.
Who: A2A Calore & Servizi and Aprica Where: Brescia and Bergamo To: First classes of secondary schools of 2 <sup>nd</sup> degree	Project aimed at first-year students through interventions in the classroom on the integrated energy system of Brescia and Bergamo, by personnel of the two promoting companies, in preparation for the visit to the WTE plant in Brescia and Bergamo.
"COLLECT, TRANSFORM, CREATE" PROJECT Who: A2A Ambiente Where: Naples, Acerra, Caivano To: Primary schools 1st and 2 <sup>nd</sup> grade	Project promoted in collaboration with some associations active in Campania (Amici della Terra, ACSSA, Adiconsum, Consumers League) to raise awareness among young people on the issue of waste, reuse, recycling and treatment. There have been 80 classroom lessons and more than 130 classes were involved, for a total of over 1,100 students.  In 2014, the project was enriched by a new initiative: EcoReporter, a pen stroke and ink challenge on waste, to enact new young writers of "Fiuto e rifiuto", the publication of A2A Ambiente dedicated to the project.
LET'S LEARN TOGETHER ABOUT ENERGY AND THE CREATION Who: A2A Calore & Servizi Where: Milan To: Fourth and fifth classes of the primary and secondary school 1st grade	Activities organized in collaboration with the School Commission of Zone 4 of Milan, with the goal of preparing students to the visit to the Canavese cogeneration plant.  Meetings were held in preparation for the visit, held by personnel of A2A Calore & Servizi.
OUR ENERGY FOR THE ENVIRONMENT Who: A2A Where: Brescia To: Primary and secondary schools	Tv quiz game that involve 5 primary schools and six secondary schools in Brescia. The broadcast was aired on Teletutto on Saturday night and replica on Teletutto2 on Sunday, for a total of 11 episodes plus the final with the award ceremony.

## **Environmental education**

 $\ \, \text{A2A and projects with young people} \\$ 



#### **DIVERSITY ENERGY AND GROWTH**

Who: Edipower

Where: San Filippo del Mela To: Primary schools 1st and 2nd grade The theme of the project was "Diversity" as wealth and energy for our country. Each class developed

#### CONFERENCE:

"A2A Day School - Environmental education: comparing experiences"

Who: A2A and AEM Foundation Where: Milan Home of Energy and the

Environment To: School executives and teachers of all

grades and levels

## **ENVIRONMENTAL EDUCATION**

IN CLASS Who: Aprica Where: Como

To: Fourth classes of primary and second

secondary schools 1st grade

their design, illustrating the cultural and environmental diversity of its territory through different modes of expression: thoughts, themes, fairy tales, drawings, photographs, video and much more. The project involved 19 schools, 72 classes and over 1,400 students.

Intended for teachers of primary and secondary schools of 1st and 2nd grade of the provinces of Lombardy, the conference was also a means to present the additions of Progetto Scuola 2014 of A2A. These include the launch of the path "Waste from discarded material to resource", dedicated to the recycling of waste and energy enhancement, by the House of Energy and Environment.

For the first time Aprica, which has been managing since 2013 the urban sanitation service in Como, proposed, in agreement with the Municipality, a path of awareness and information on Environmental Sustainability and prevention, differentiated collection, reuse and recycling of waste. The project included meetings in class curated by experts and the provision of educational materials to students and teachers.



Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

### Social responsibility

A<sub>2</sub>A people The customers and public served Suppliers

Institutions and local communities

Statement of compliance

## 5.4.4 | Internal communication and external communication to stakeholders

For A2A communication it is part of those essential tools to be able to relate better, both internally and externally, with all its interlocutors of reference.

This activity is supported by tools of corporate communications, internal communication products such as the house organ or the company Intranet, video productions disseminated through the youtube channel of A2A, commercial communications for customers, specific brochures for the Group's plants and communications products for the service activities that A2A performs such as those aimed at environmental sanitation services.

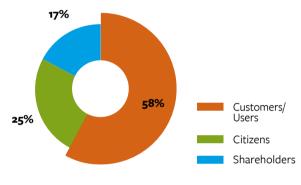
For further details please visit www.a2a.eu to browse some of the publications produced by the Group and the youtube channel to see the videos produced by A2A.

In the external communication of A2A an important role is played by media relations. For the Group, in fact, the media are an important channel not only to ensure constant, timely and transparent communication to all stakeholders, but also to convey to citizen customers/ users a lot of information of practical interest related to the services provided.

In 2014, there were a total of 165 press releases, of which 62% contained information for customers/users, 17% of citizens and the remaining 21% to shareholders.

During the year, letters sent to the media totalled 62, with content that for 42% concerned issues for customers/ users, 56% citizens in general and 2% for shareholders. Answers to interviews and columns are not included.

Figure 202 | Breakdown of A2A media communications by intended recipient



releases), 58% was direct and of specific interest for customers/users, 25% for citizens and the remaining 17% for shareholders.

Numerous opportunities to meet with journalists: more than 300 interviews, one-on-one interviews, press conferences and other initiatives directly related.

Of sure relevance is also digital communication that is an increasingly strategic tool to inform and communicate promptly with all stakeholders of reference.

means of sharing that can provide tools able to generate value for citizens-customers, which places strong emphasis on the expectations of all interlocutors who use the services offered by the Group.

In 2014, thanks to the complete renovation of the sites of the companies of environmental sanitation Amsa and Aprica, which are part of the A2A Group, and implementation of new features in the APP PULIamo, this type of communication was further developed.

During the year, "PULIamo" was translated into 10 languages with regard to the services linked to the Municipality of Milan, to promote and support the dissemination campaign of the rules for differentiated collection for most major foreign communities living in Milan. Furthermore, also in agreement with the Municipality of Milan, the project Biciclami was developed for reporting abandoned bicycles and their removal.

Easy access to information also through mobile devices has created an additional value for the end customers. In fact, as shown by recent data published by industry media, free mobile internet connection has surpassed that from personal computers thus creating the need to access increasingly more frequently information from smartphones and tablets.

As for the website of A2A, 2014 confirmed the steady growth of access data with more than 2.8 million pages visited: the site has been enriched with new multimedia content and interactive tools to search for information on the Group's plants.

A2A is also present in the major social networks such as **Facebook** and **Twitter** through which it can interact with its interlocutors and achieve well-defined goals that range from useful public communication to the sharing

of activities, projects and actions that affect the Group's activities: from energy to environmental issues, from commercial to service activities.



## The new site of Aprica

In 2014, Aprica renewed its website in line with the standards for mobile devices (tablets and smartphones). The home page focuses on the target audience; the interactive tool "Services in the area", based on Google map, immediately identifies the Aprica services available in the area, such as: street containers, containers for expired medicine, ecological platforms, Ecocar, etc. In addition, by entering their address, users can know the timing of the collections for their area.

The site is available in nine languages: Italian, English, Spanish, French, Chinese, Arabic, Ukrainian, Romanian and Sinhalese. Citizens-users can use a variety of tools to interact with the company, learn what services are available, use the various services and report irregularities. The website is complete with a back office system, which handles incoming messages and integrates them directly with the company operating system.



Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

# Social responsibility

A2A people
The customers
and public served
Suppliers

Institutions and local communities

Statement of compliance

#### Statement of compliance



## INDEPENDENT REPORT ON THE LIMITED ASSURANCE ENGAGEMENT OF THE SUSTAINABILITY REPORT 2014

To the Shareholders of A2A SpA

We have carried out a limited assurance engagement on the Sustainability Report (hereinafter the "Report") of A2A Group (hereinafter the "Group") for the year ended 31 December 2014.

#### Responsibility of the Directors for the Report

The Directors are responsible for preparing the Report in compliance with the G4 Sustainability Reporting Guidelines defined in 2013 by the GRI - Global Reporting Initiative and by the G4 Sector Disclosure - Electric Utilities defined in 2013, as indicated in the chapter "Introduction" of the Report, and for that part of internal control that they consider necessary to prepare a sustainability report that is free from material misstatement, whether due to fraud or unintentional behaviours or events. The Directors are also responsible for defining the sustainability performance targets of A2A Group, for reporting the sustainability results, as well as for identifying the stakeholders and the significant aspects to be reported.

#### Auditor's responsibility

We are responsible for the preparation of this report on the basis of the work performed. We conducted our engagement in accordance with International Standard on Assurance Engagements 3000 – Assurance Engagements other than Audits or Reviews of Historical Financial Information (ISAE 3000), issued by the International Auditing and Assurance Standards Board for limited assurance engagements. The standard requires that we comply with applicable ethical requirements, including professional independence, and that we plan and perform our work to obtain limited assurance that the Report is free from material misstatement. The procedures consisted in interviews, primarily of company personnel responsible for the preparation of the information presented in the Report, analysis of documents, recalculations and other verification procedures.

The procedures we performed on the Report consisted in verifying its compliance with the principles for defining the content and the quality of a sustainability report set out in the  $G_4$  Sustainability Reporting Guidelines and in the  $G_4$  Sector Disclosure - Electric Utilities, and are summarised as follows:

#### PricewaterhouseCoopers Advisory SpA

Sede legale: Milano 20:49 Via Monte Rosa 91 Tel. 02667201 Fax 0266720501 Cap. Soc. Euro 3,700.000,00 i.v. - C.F. e P.IVA e Iscrizione al Reg. Imp.Milano nº 0323050967 - Altri Uffici: Bari 70:122 Via Abate Gimna 7 z Tel. 0805640311 Fax 0805640349 - Bologna 01:02 Via Abate Finelli 8 Tel. 05:0540821 Fax 0805640349 - Bologna 01:02 Via Abate 9 Tel. 010:29041 - Napoli 80:121 Via dei Mille 16 Tel. 08:156181 - Padowa 35:138 Via Vicenza 4 Tel. 049873431 Fax 049873499 - Palermo 90:141 Via Marchese Ugo 60 Tel. 09:1652631 Fax 09:178929221 - Roma 00:154 Largo Fochetti 28 Tel. 06:570831 Fax 04:9783929 - Teriso 3:100 Viale Felissent 90 Tel. 04:22315711 Fax 04:22315798 - Trieste 3:4125 Via Cesare Battisti 18 Tel. 040;438(878) Fax 040;57372 - Verona 3:735 Via Francia 2:1/C Tel. 0458636001

Società soggetta all'attività di direzione e coordinamento della PricewaterhouseCoopers Italia Srl www.pwc.com/it



- comparing the financial information reported in chapter "Economic responsibility" of the Report with the information included in the Group's consolidated financial statements as of 31 December 2014 on which we issued our audit opinion, in accordance with articles 14 and 16 of legislative decree n° 30 of 27 January 2010, on 27 April 2015;
- analysing, through inquiries, the governance system and the process for managing the sustainability issues relating to the Group strategy and operations;
- analysing the process aimed at defining the significant reporting areas to be disclosed in the Report, with regard to the methods for their identification, in terms of priority for the various stakeholders, as well as the internal validation of the process findings;
- analysing the processes underlying the generation, recording and management of quantitative data included in the Report. In detail, we carried out:
  - meetings and interviews with the representatives of A2A SpA, AMSA SpA, Edipower SpA, A2A Ambiente Srl, A2A Energia 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 procedures supporting the collection, aggregation, processing and submission of the information to the function responsible for the Report preparation;
  - a sample-based analysis of the documents supporting the preparation of the Report, in order to obtain evidence of the reliability of processes in place and of the internal control system underlying the treatment of the information relating to the objectives disclosed in the Report;
- analysing the internal consistency of the qualitative information described in the Report and its
  compliance with the guidelines identified in the preceding paragraph "Responsibility of the
  Directors for the Report";
- analysing the engagement of stakeholders and its results through the existing documentation concerning the significant matters arisen during the Group dialogue initiatives;
- obtaining a representation letter, signed by the legal representative of A2A SpA, on the
  compliance of the Report with the guidelines identified in the paragraph "Responsibility of the
  Directors for the Report", as well as the reliability and completeness of the disclosed
  information.

Data and information subject to our limited assurance procedures are included, as required by the *G4 Sustainability Reporting Guidelines*, in the *GRI Content Index* of the Report.

Our limited assurance work was less in scope than a reasonable assurance engagement performed in accordance with ISAE 3000 and, consequently, it does not provide us with a sufficient level of assurance necessary to became aware of all significant facts and circumstances that might be identified in a reasonable assurance engagement.

Introduction The A2A Group Strategies and policies for sustainability Economic responsibility Environmental responsibility Social responsibility **Statement** of compliance Statement of the leve of compliance with GRI guidelines

2 di 3

### Statement of compliance



#### Conclusion

Based on the work performed, nothing has come to our attention that causes us to believe that the Sustainability Report of A2A Group as of 31 December 2014 has not been prepared, in all material respects, in compliance with the G4 Sustainability Reporting Guidelines defined in 2013 by the GRI - Global Reporting Initiative and by the G4 Sector Disclosure - Electric Utilities defined in 2013 as disclosed in the chapter "Introduction" of the Report.

Turin, 18 May 2015

PricewaterhouseCoopers Advisory SpA

Signed by

Paolo Bersani (Partner)

This report has been translated from the original, which was issued in Italian, solely for the convenience of international readers.

222 2014 Sustainability Report

## Declaration of the level of compliance with GRI guidelines

Any "restatement" with respect to the previous report

Any "restatement" with respect to the material aspects of the previous report

#### **General Standard Disclosure**

Indicator

G4-2 (comp)

**Organizational profile** 

G4-1

G4-3 G4-4

G4-5

G4-6

G4-7

G4-8

G4-9

G4-10 G4-11

G4-12

G4-13

G4-14

G4-15

G4-16

G4-17

G4-18

G4-19

G4-20 G4-21

G4-22

G4-23

**Material aspects and perimeter** 

rd Disclosure	• = full correspondence	= partial correspondence	ce O= no correspondenc
	Correspondence	Notes/pages	External verification
Letter to stakeholders	•	4-5	
Impacts, risks and opportunities		25-29	X
l profile			
Name of the organization	•	cover	X
Services provided	•	14-15	X
Location of company headquarters	•	14	X
Countries where the organization operates	•	17	X
Ownership structure	•	14	X
Markets served	•	16-17	X
Scale of the organization	•	16	X
Employees by type of contract, gender, geographic area, category	•	143,145	X
Employees covered by collective agreements	•	133	X
Supply chain of the organization	•	196-199	X
Changes during the year in the organization or in the supply chain	•	18	X
Precautionary principle (risk management)	•	36-37	
Charters, principles or other external initiatives that the organization signs	•	30-31	
List of trade associations to which the organization adheres	•	207	
ts and perimeter			
Companies included in the consolidated financial statements and those not considered in the Sustainability Report	•	7-8	Х
Process for defining report content and scope	•	7,9	Х
Material aspects identified in the process of defining content	•	10-11	Х
For each material aspect indicate the related scope within the organization	•	11	Х
For each material aspect indicate the related scope outside the organization	•	11	Х
		_	.,

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

Statement of compliance

Χ

Indicator		Correspondence	Notes/pages	External verification
Stakeholder e	ngagement			
G4-24	Group Stakeholders	•	38	X
G4-25	Identification process	•	38	Χ
G4-26	Engagement approach, including frequencies and types of activities	•	39-45	X
G4-27	Issues arising from stakeholder engagement	•	39-45	X
Report parame	eters			
G4-28	Reporting period	•	6	Χ
G4-29	Date of last report published	•	6	Χ
G4-30	Reporting frequency (yearly, half-yearly, etc.)	•	6	Χ
G4-31	Contacts for information regarding the report	•	colophon	Χ
G4-32	GRI Content Index	•	223-231	Χ
G4-33	Assurance document	•	220-222	
Governance				
G4-34	Governance structure of the organization	•	33-34 + RoCG 20-42	Χ
G4-35 (comp)	Delegation process for economic, environmental and social issues	•	34 + RoCG 41	Χ
G4-36 (comp)	Internal positions with economic, environmental and social responsibility	•	34 + RoCG 41	Χ
G4-37 (comp)	Processes for consultation on economic, environmental and social issues between stakeholders and the highest governance body	•	Territorial multi- stakeholder forums will be activated in 2015	
G4-38 (comp)	Composition of the highest governance body and its committees	•	33-34 + RoCG 20-42	Х
G4-39 (comp) G4-40 (comp)	Indicate whether the Chair of the highest governance body also has an executive role Process of selection and appointment for the highest governance body and its committees	•	34 + RdG 35 33 + RdG 12-18	Х
G4-41 (comp)	Processes in place for the highest governance body to ensure conflicts of interest are avoided	•	RoCG 24,53	
G4-42 (comp)	Role of the highest governance body in the development, approval and updating of the corporate mission, strategies, policies and objectives	•	RoCG 23	
G4-43 (comp)	Training of the highest governance body on economic, environmental and social issues	•	35 + RoCG 35	
G4-44 (comp)	Process for evaluating the highest governance body's performance	•	35 + RoCG 24	
G4-45 (comp)	Management of impacts, risks and opportunities in economic, environmental and social terms	•	36-37	Х

Indicator		Correspondence	Notes/pages	External verification
G4-46 (comp)	Review of risk management in economic, environmental and social aspects	•	36-37	X
G4-47 (comp) G4-48 (comp) G4-49 (comp)	Indicate the frequency with which the highest governance body performs said revision Indicate which position or committee examines and approves the Sustainability Report Process to communicate critical issues to the highest governance body	•	RoCG 42-53 6 30	×
G4-50 (comp)	Indicate the nature and the number of critical issues communicated to the highest governance body and the mechanisms used to solve them	0		
G4-51 (comp)	Remuneration policy for the highest governance body and management	•	34+RR	
G4-52 (comp)	Process for determining remuneration	•	34+RR	
G4-53 (comp)	Describe how the will of the stakeholders are taken into account in the process for determining remuneration	0	34 + RR	
G4-54 (comp)	Indicate the ratio of the total annual remuneration paid to the highest paid employee by the company and the average annual remuneration of employees (excluding the highest paid individual)	0		
G4-55 (comp)	Indicate the percentage increase in the ratio described above	0		
Ethical aspect	s			
G4-56	Mission, values, codes of conduct and principles	•	35	X
G4-57 (comp)	Internal and external mechanisms for providing advice on ethical and legal conduct	•	30	X
G4-58 (comp)	Internal and external mechanisms to report unethical and illegal conduct	•	30	X

RoCG Report on Corporate Governance and Ownership Structures for the year ended December 31, 2014 RR Remuneration Report

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

Statement of compliance

## Statement of the level of compliance with GRI guidelines

### **Specific Standard Disclosure**

Specific Standard Disclosure		• = full correspondence		
Indicator		Correspondence	Notes/pages	External verification (limited assurance)
Theme 1 –	Economic development			
DMA		•	24,25,49	Χ
EC1	Direct economic value generated and distributed	•	50	Χ
EC2	Economic and financial implications of climate changes	•	36-37	Χ
EC3	Coverage of the organization's defined pension plan obligations	•	133 - 134	Χ
EC4	Significant financial assistance received from PA	•	50	Χ
EC7	Development and impact of investments in infrastructure and services provided	•	na	
EC8	Main indirect economic impacts	•	51,139,141,196,204	X
Issue 2 - Re	esponsible management of the supply chain			
DMA		•	197	Χ
EC9	Policies, practices and proportion of spending on locally-based suppliers	•	196	Χ
Issue 3 - Us	se of energy resources and renewable sources			
DMA		•	61	Χ
EN1	Raw materials used by weight or volume	•	114 - 117	X
EN2	Percentage of materials used that derive from recycled materials	•	66,67,70,71,114	X
EN <sub>3</sub>	Energy consumption within the organization	•	114 -117	X
EN4	Energy consumption outside the organization	•	114 -117	Χ
EN <sub>5</sub>	Indicators of energy intensity	•	110	Χ
EN6	Reduction of energy consumption	•	77-78,86-87,92, 100-102	
EN <sub>7</sub>	Reduction in demand for energy products and services sold	•	91-93	
EU1	Installed capacity	•	85	X
EU2	Net energy output	•	109-110	X
Issue 4 - E	fficient use of water resources			
DMA		•	61	X
EN8	Total water withdrawal by source	•	114-117, 124	Х

Indicator		Correspondence	Notes/pages	External verification (limited assurance)
EN9	Water sources significantly affected by withdrawal of water	•	69	
EN10	Percentage and total volume of water recycled and reused	•	114-117	X
Issue 5 - Saf	eguarding of biodiversity, habitats and the landscape			
DMA		•	61	X
EN11	Land owned, leased or managed in protected areas	•	72-74	
EN12	Impacts of activities, products and services on biodiversity	•	72-74	X
EN13	Habitats protected or restored	•	72-74	
EN14	Protected species with habitats in areas affected by operations	•	72-74	
EU13	Biodiversity of offset habitats compared to the biodiversity of the affected areas	•	72-74	
lssue 6 - Atn	nospheric emissions			
DMA		•	61	X
EN15	Direct GHG emissions (Scope 1)	•	76,124	X
EN16	Indirect GHG emissions (Scope 2)	•	76,124	X
EN17	Other indirect GHG emissions (Scope 3)	•	76,124	X
EN18	GHG emission intensity	•	123	X
EN19	Initiatives to reduce GHG emissions	•	87-89, 101-103	X
EN20	Emissions of ozone-depleting substances	•	123	X
EN21	$NO_X$ , $SO_X$ and other significant emissions	•	118-122	X
EU5	Allocations of emissions allowances and observance of the Kyoto protocol	•	77	X
ssue 7 - Mai	nagement of waste and waste water			
DMA		•	62	X
EN22	Total water discharge by quality and destination	•	80,125-126	X
EN23	Total weight of waste by type and disposal method	•	126-127	X
EN24	Total number and volume of significant spills	•	na	X
EN25	Waste deemed hazardous	•	126-127	X

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

Statement of compliance

Indicator		Correspondence	Notes/pages	External verification (limited assurance)
EN26	Impact on biodiversity affected by water discharges	•	73,125	Х
Issue 8 - Re	sponsible management of the business sectors			
DMA		•	62	X
EN27	Initiatives to mitigate environmental impacts of products and services	•	68,70-74,79,81-83, 86-89,91-93,96, 99-103,107-108	Х
EN28	Products sold and their recycled material packaging	•	na	
EU4	Length of transmission and distribution lines	•	186-187	
EU6	Management approach to ensure medium-long term electricity availability	•	186,188	
EU8	Research and development activity aimed at promoting sustainable development	•	81-83,86,92-93,99, 107-108	
EU9	Decommissioning of nuclear power sites	•	na	
EU10	Planned capacity	•	25	
EU11	Average generation efficiency of thermal plants	•	110	X
EU12	Transmission and distribution losses as a percentage of total energy	•	111	X
EU30	Average plant availability factor	•	186	
Issue 9 – Er	nployment			
DMA		•	131	Χ
LA1	Number of employees, hires and turnover rate	•	132-133, 146, 149	X
EU15	Percentage of employees eligible to retire in the next 5 to 10 years	•	144	X
EU20	Policies and approach to managing the impacts of dismissals	•	133	
Issue 10 – Ir	ndustrial relations			
DMA		•	131	X
LA4	Minimum notice period regarding operational changes	•	133-134	
Issue 11 – H	ealth and safety		,	
DMA		•	131	X
LA <sub>5</sub>	Percentage of workers represented in the health and safety committee	•	134	
LA6	Occupational injuries and illnesses	•	134-135,150-153	X

Indicator		Correspondence	Notes/pages	External verification (limited assurance)
LA <sub>7</sub>	Employees with a high risk of illness/injury related to the type of work	•	136	
LA8	Health and safety topics covered in formal agreements with trade unions	•	133	
EU16	Policies regarding health and safety of employees and third-party employees	•	135	X
EU17	Days worked by third-party employees involved in construction, operation and maintenance	•	135	X
EU18	Percentage of third-party employees that have undergone relevant health and safety training	•	135	X
Issue 12 – P	ersonnel development and management			
DMA		•	131	X
LA9	Average annual hours of training per employee	•	137	X
LA10	Programs for skills management	•	136-139	X
LA11	Evaluation of performance and development	•	136-137	X
EU14	Programs and processes to ensure the availability of skilled workforce	•	136-139	X
Issue 13 – C	orporate welfare and Diversity management			
DMA		•	131	X
LA <sub>2</sub>	Employee benefits	•	141	X
LA <sub>3</sub>	Return to work and retention rates after parental leave	•	153	X
LA12	Composition of governance bodies by gender and other indicators of diversity	•	139-140,143,33	X
LA13	Ratio of basic salary and average salary of men to women in the same category, by main production sites	•	140	X
Issue 14 - M	anagement of categories of vulnerable clients			
DMA		•	157	X
HR <sub>3</sub>	Incidents of discrimination and corrective actions taken	•	30,172,178,182	Х
Issue 15 - Re	espect for human rights			
DMA		•	30	X
HR9	Activities subject to assessment on human rights	•	30	
Issue 16-17	- Support for initiatives and projects on the territory/Environmental education programs	and initiatives		
DMA		•	205	X
SO1	Activities with involvement by local communities	•	210-217	

Introduction

The A2A Group

Strategies and policies for sustainability

Economic responsibility

Environmental responsibility

Social responsibility

Statement of compliance

## General Standard Disclosure

Indicator		Correspondence	Notes/pages	External verification (limited assurance)
SO <sub>2</sub>	Activities with negative impacts, present or potential, on local communities	•	63-65,88-89,107- 108	Х
Issue 18 - Ar	nti-corruption policies			
DMA		•	30	X
SO <sub>3</sub>	Business units analyzed for risks related to corruption	•	30	
SO <sub>4</sub>	Communication and training on anti-corruption policies and procedures	•	30	
SO <sub>5</sub>	Corruption cases reported and confirmed and related actions taken	•	30	
Issue 19 - Pu	ablic policy			
DMA		•	205	X
SO6	Financial contributions to political parties, politicians and related institutions	•	206	X
Issue 20 - Ef	ffective management of roadworks for digging and pipe-laying			
DMA		•	157	X
PR1	Products/services for which the impacts on health and safety are assessed	•	182-183	
PR <sub>2</sub>	Cases of non-compliance on health and safety of products/services	•	182-183	
Issue 21-22-	-23 - Fairness and transparency in relations with customers/Quality of services provided	and attention to cus	tomers/Customer re	sponsibility
DMA		•	157	X
EU3	Number of customers analyzed by type	•	156	X
PR <sub>3</sub>	Information required by procedures and percentage of significant products and services subject to such	•	158	Χ
SO8	Fines and non-monetary sanctions for non-compliance with laws and regulations	•	37	
EU21	Management of emergencies, disasters	•	63-65, 188	X
EU22	Number of people physically displaced or economically compensated	•	na	
EU25	Number of injuries and fatalities to the public, including legal proceedings	•	184	
PR4	Non-compliance concerning product and service information and labeling	•	na	
PR5	Claims related to customer satisfaction	•	167-170,177-178,181	X
EU23	Programs to improve or maintain access to electricity	•	209	
EU24	Information provided to customers on the safe use of energy and support services	•	www.a2a.eu/it/ clienti/gas/ sicurezza_gas.html	

Indicator		Correspondence	Notes/pages	External verification (limited assurance)	Introduction
EU26	Popolazione non servita nell'area di distribuzione	•	na		
EU27	Number of disconnections for non-payment	•	A2A Energia, as part of procedures for control of credit, monitors the indicator constantly. However, it considers appropriate to not indicate said figure, considered sensitive data		Strategies and policies for sustainability  Economic responsibility  Environmental responsibility
EU28	Index of power outage frequency	•	188		_
EU29	Index of average power outage duration	•	187		Social
EU7	DSM (Demand-side management) programs	•	157-184		responsibility
ssue 24 –	Internal and external communication to stakeholders	·			Statement
DMA		•	205	X	Statement of compliance
PR6	Sale of products banned or claimed	•	na		_
PR7	Non-compliance concerning marketing activities	•	37		Statement of the
EU19	Stakeholder participation in the decision making process	•	40-45	X	of compliance with GRI guidelin

## A2A S.p.A.

## **Registered office:**

via Lamarmora, 230 - 25124 Brescia T [+39] 030 35531 F [+39] 030 3553204

### Headquarters and administrative office:

Corso Porta Vittoria, 4 - 20122 Milano T [+39] 02 77201 F [+39] 02 77203920

### Produced by:

S.O. Media Relations, Corporate Communication and Sponsorships and S.O. Environment, Health and Safety T. [+39] o277201-sostenibilita@a2a.eu-www.a2a.eu

We would like to thank everyone at A2A who contributed to the production of this report, with special thanks going to the members of the working group: Alessandra Adamoli, Fausto Antonioli, Manuela Baudana, Lamberto Bortesi, Valentina Catalano, Giuseppe Cerrato, Paola Colombo, Alice Gaddi, Giovanna Gesi, Antonio Gioia, Giulia Gugliara, Michele Mincuzzi, Antonella Osbello, Emilio Pafumi, Angelita Palmigiano, Andrea Pedrana, Valentina Piroso, Armando Riccobelli, Marta Simoni, Walter Trotter, Elisetta Turci, Stefania Valsecchi, Corrado Vicardi, Anna Villari, Saverio Zetera.

## **Graphic design and layout:**

Cabiria BrandUniverse www.cabiriabrand.com

## Printed by:

Staged Srl Officine Grafiche

Milan, May 2015

