



2009 Sustainability Report

The following tables show the magnitudes that Enel considers essential for its sustainability auditing and measuring.

The tables contain:

- > the description of the magnitude recorded;
- > the unit of measurement in which it is expressed;
- > the number for 2009;
- > the number for 2008;
- > the number for 2007;
- > the change in absolute value between 2009 and 2008;
- > the percentage change between 2009 and 2008;
- > the boundary to which the number refers.

In comparing the data over time, the significant changes in the composition of the Group described in the "Parameters of the Report" section (page 52) must be considered.

Criteria used for the Key Performance Indicators (KPI):

- > By "Enel" is meant the entire Group.
- > By "Abroad" is meant the entire Group, excluding Italy.
- > By "International Division" is meant Bulgaria, Romania, Slovakia, and Russia together.
- > The economic data regarding the item "Economic performance" for 2007, 2008, and 2009 are taken from the Annual Report.
- > The differences between 2009 and 2008, expressed as both an absolute value and a percentage value, are calculated considering decimals, which are not visible in print.

Units of measurement

,000	thousands
no.	number
%	per cent
,000 h	thousands of hours
,000 kg	thousands of kilograms
,000 km	thousands of kilometers
,000 m ²	thousands of square meters
,000 t	thousands of tons
bil. m ³	billions of cubic meters
cent €	euro cents
d	days
euro	euro
g/kWh	grams per kilowatt-hour
GBq/Unit	gigabequerel per Unit
GWh	gigawatt-hours
h	hours
h/person	hour per person
ind	rating
km	kilometers
kW	kilowatts
kWh	kilowatt-hours
kWp	kilowatt-peak
l/kWh	liters per kilowatt-hour
m ³	millions of cubic meters
mil. A4 eq.	millions of A4 sheets equivalent
mil. euro	millions of euro
mil. h	millions of hours
mil. t	millions of tons
min	minutes
Mtoe	millions of tons of oil equivalent
MW	megawatts
MWh	megawatt-hour
sec	seconds
t	tons
TBq/Unit	terabequerel per Unit
toe	tons of oil equivalent
TWh	terawatt-hour
years	years

Acronyms

ACR	Abandoned Call Rate
BOD	Biochemical Oxygen Demand
BoD	Board of Directors
CCGT	Combined Cycle Gas Turbine
COD	Chemical Oxygen Demand
CSR	Corporate Social Responsibility
DPS	Dividend per Share
DT	Distance Training
EBIT	Earnings Before Interest and Tax
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortization
EBT	Earnings Before Tax
EDLS	Enel Distance Learning System
EIB	European Investment Bank
ENA	Enel North America
EPS	Earnings per Share
EUFER	Enel Unión Fenosa Renovables
GARP	Growth at Reasonable Price
GEM	Generation and Energy Management
HV	High Voltage
IAS	International Accounting Standards
IFRS	International Financial Reporting Standards
IPO	Initial Public Offering
IRAP	Imposta Regionale sulle Attività Produttive (regional tax on firms)
IRES	Imposta sul Reddito delle Società (corporate income tax)
IVR	Integrated Voice Response
KM	Knowledge Management
LBG	London Benchmarking Group
LV	Low Voltage
MIR	Networks, Infrastructure, and Sales
MV	Medium Voltage
ORIM	Orimulsion
PCB	Polychlorinated Biphenyls
R&D	Research & Development
ROACE	Return on Average Capital Employed
S&P	Standard & Poor's
SRI	Socially Responsible Investment
TG	Telemanagement
TSR	Total Shareholder Return

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USEFUL LINKS

Global Reporting Initiative
www.globalreporting.org

2009 Sustainability Report and earlier ones
http://www.enel.com/en-GB/sustainability/our_responsibility/sustainability_balance_sheets/reports/

2009 Consolidated Financial Statements and earlier ones
http://www.enel.com/en-GB/investor/financial_reports/annual/

Code of Ethics
http://www.enel.com/en-GB/sustainability/our_responsibility/ethic_principles/our_values/code_of_ethics/index.aspx

The Environment
<http://www.enel.com/en-GB/sustainability/environment/>

Zero Tolerance of Corruption Plan
http://www.enel.com/en-GB/sustainability/our_responsibility/ethic_principles/our_values/zero_tolerance/index.aspx

www.enel.com

Preface to the 2009 Sustainability Report

With its 2006 Sustainability Report, Enel was one of the first companies in the world to adopt the new GR1-G3 Sustainability Reporting Guidelines developed by the Global Reporting Initiative.

The GRI is a multi-stakeholder network of thousands of experts throughout the world who, by participating in the initiative's working groups and governance bodies, contribute to establishing and disseminating the procedures for reporting sustainability.

The GRI guidelines provide all the stakeholders of a company with a detailed overview of corporate sustainability and social responsibility and require compliance with the highest standards of the transparency and completeness of information.

For the electricity industry (the generation, transmission, distribution, and sale of electricity), GRI has established the EUSS (Electric Utilities Sector Supplement) indicators, which capture the particularity of that business and the key aspects of sustainability performance.

Enel has been proactive within the GRI in the conception, discussion, and approval of these sector indicators in order to make corporate communication for the use of the stakeholders concerned ever more transparent and fairer.

After the experimental phase of reporting the EUSS in its 2008 Sustainability Report, beginning with 2009 Enel will report the EUSS indicators and integrate them in this Report.

This Report can be consulted online at <http://sustainabilityreport2009.enel.com/>.

GRI & EUSS Content Index

The purpose of this table is to help the reader in directly searching for the reference to the GRI and EUSS indicators in this document, in which by “Group” or “Enel” is meant all the companies under the control of Enel SpA. For some indicators, any limitations are described in the notes to the following table. Enel undertakes to make the missing information available in the medium term.

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* of the 2009 Annual Report.

Reporting limitations:

- (1) The 2007 number is missing.
- (2) The Enel number for 2007 and 2008 is missing.
- (3) For grants the number regarding non-European countries is missing.
- (4) The number is missing.
- (5) The number regarding Enel in Latin America is missing.
- (6) The number for 2007 and 2008 is missing.
- (7) The number regarding subcontractors is missing (EUSS).
- (8) The foreign number for 2007 and 2008 is missing.
- (9) The number for Enel and Russia in 2007 and 2008 is missing.
- (10) The number for Enel and Russia in 2007 is missing.
- (11) The number is estimated.
- (12) The number refers to Italy and the number for 2007 and 2008 is missing.
- (13) The number for Enel in Latin America, and for Iberia and Romania in 2007 and 2008, is missing.
- (14) The number for Enel in Latin America, and for Romania in 2007 and 2008, is missing.
- (15) The number for Enel in Latin America, for Iberia in 2007 and 2008, and for Slovakia in 2007, is missing.
- (16) The number for Enel, and for abroad in 2007 and 2008, is missing.

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A Letter to Our Stakeholders



Our Mission

Enel's mission is to generate and distribute value on the international energy market, to the benefit of the requirements of our customers, the investments of our shareholders, the competitiveness of the countries in which we operate, and the expectations of everyone who works with us. Enel acts in the service of communities, respecting the environment and the safety of people, with the commitment to ensure a better world to coming generations.

During 2009, Enel completed its international expansion. Our Group is now present in 23 countries, with about 81,000 employees and 95.3 GW of installed capacity, including more than 34 GW generated from renewable energy sources (hydroelectric, geothermal, wind, solar, and biomass), which make us the world leader in the field of renewable energy. In Europe, Enel is the second largest listed utility in terms of operating income and installed capacity. Enel has grown and become a multinational, but always keeps in mind that growth must take place in tandem with corporate social responsibility and concern for the needs of all our stakeholders, in order to make our contribution to a sustainable future.

This commitment has been rewarded with important results. For the sixth year in a row we are present in the prestigious Dow Jones Sustainability Indexes, the ethical investment funds show confidence in Enel and as of February 2010 constituted more than 18% of the share capital held by institutional investors, and our Sustainability Report is a significant reference, with over 450 indicators measuring our constant commitment to corporate social responsibility. Looking ahead, we hope that the Sustainability Report can be gradually integrated with our financial reporting, thus making it easier to read and ensuring a better evaluation of the Company's actions.

The transparency of our actions is ensured by a complex and stringent system of corporate governance, which enables us to constantly steer our actions toward the creation of value for all our stakeholders while being aware of the social and environmental importance of the operations in which the Group is involved and reporting them regularly to the market and society.

In its management of the economic, social, and environmental parameters that characterize its corporate social responsibility, or CSR, Enel already applies the same diligence and methods it uses to govern its business. To guarantee these commitments, every year we establish our CSR objectives and priorities in accordance with both the Group's strategy and the principles of the U.N.'s Global Compact, integrating this in our business plan and subjecting them to half-yearly planning and auditing. Likewise, our subsidiary Endesa, one of the largest electricity companies in the world and a leader in Spain and Latin America, has incorporated the values of CSR in its governance.

We want to be good citizens in all the countries that host our operations, constantly respecting diversity and trying to integrate with the different social situations. Several numbers show our ability to dialogue with society. In 2009, we involved more than 440,000 students throughout the world thanks to "Play Energy", an educational project about the world of energy. In Italy 100,000 people visited 64 Enel plants with "Open Plants", and in Chile 6,000 girls and boys participated in a soccer and volleyball tournament at facilities lit by Enel

and Endesa in cooperation with UNICEF and other institutions.

We are starting an internal communication campaign to disseminate knowledge of the new Code of Ethics among all our employees in order to regulate our corporate behavior according to uniform standards based on the utmost fairness.

Safety and the unique importance of the individual have always been at the heart of our values and distinguish Enel's corporate culture. The Company is deeply committed to disseminating and consolidating the awareness of safety issues, promoting responsible behavior by all its employees. The trend is one of the constant reduction of injuries at Enel. In the last five years (2005-2009), the Company has recorded a 56% reduction in the injury rate and 48% in the seriousness rate. In 2009, more than a million hours of training were dedicated to health and safety, with an expenditure of 105 million euro on safety activities. Other initiatives, such as the alternative procedure for settling disputes that we instituted together with all the Italian consumer associations, are aimed at satisfying our customers through a communicative and transparent approach. Enel's environmental strategy is consistent with our increasing ability to apply the best technologies available to reduce emissions of greenhouse gases and other pollutants. Our objective is to be able to generate electricity economically with close to zero emissions. In 2009, we were one of the 60 electricity companies of the 27 countries of the European Union that, as part of an initiative of Eurelectric, had their respective chief executive officers subscribe to a commitment to transform the European electricity industry into a "neutral" one from the point of view of CO₂ emissions by 2050.

Thanks to the significant percentage of our generating plants, including the nuclear ones, that are carbon-free, in 2009 we avoided the emission of about 100 million tons of CO₂ into the air. In practice, it is as if we had cancelled the emissions of about 60 million cars.

We are also keeping our promise to future generations with our deep commitment to innovation, research, and the development of new technologies, for which we have planned investment amounting to about a billion euro for the period 2010-2014. In effect, we believe that research and innovation are important for improving existing technologies and exploring new ways to find satisfying solutions to the problems that the energy world will have to face in the near future.

We support technological initiatives that will lead to the generation of electricity with zero emissions, even with the use of fossil fuels. Together with Endesa, we are testing the most promising technologies for the capture and storage of CO₂ (CCS), a solution that is essential for removing carbon from both the production of electricity and heavy industry in general.

Another concrete example is the effort we have put into smart meters. Beginning in 2001, Enel has been a world pioneer in the creation and installation of this technology, which is decisive for an intelligent use of electricity. We now have 32 million smart meters in Italy and intend to install 13 million more of them for Endesa's customers.

As far as our research is concerned, there are numerous examples of excellence: electricity generation from hydrogen, low-enthalpy geothermal generation, concentrated photovoltaic solar generation, the innovative thermodynamic solar Archimede power plant, and multi-generation systems like the Diamond, as well as – in the field of energy efficiency – the LED technology of the Archilede streetlights, smart grids, and electric mobility systems.

We believe that the task of the electricity industry is to ensure a supply of sustainable, economical, and accessible energy, while seeking to carry out as best we can our mission to grow and develop. We are aware of not only the successes, but also of the inevitable problems that such a policy entails.

To meet this challenge, Enel intends to adopt all the possible solutions, from nuclear generation and clean coal to renewable energy and energy efficiency. We feel the great responsibility of guiding the change towards a better future, in which our prosperity will depend on our respect for the environment and the innovation that we are able to achieve today, as well as on a better use of our resources and the priority we are able to establish for the value of knowledge.

Piero Gnudi
Chairman



Fulvio Conti
Chief Executive Officer
and General Manager







Standard Disclosures

1. Strategy and Analysis

Enel is an integrated Group on the electricity and gas value chain. Its lines of business vary from country to country, ranging from the supply of raw materials and the generation of electricity to the distribution and sale of electricity and gas.

An extract from Chief Executive Officer Fulvio Conti's letter to our shareholders and other stakeholders published in the 2009 Annual Report.

"With the completion of and the integration of the companies acquired, Enel is now a leader in the markets where it operates, with an efficient technological and geographical mix, a significant presence in the field of renewable energy, and the ability to pursue excellence through, among other things, innovation. In 2009, Enel increased its gross operating margin by 12% with respect to the previous year, while the Group net income rose about 2% to 5.4 billion euro, the highest level ever achieved in the history of the Group, in spite of the difficult times for the world economy.

Enel also made its financial position even sounder through a capital increase, bond issues, and an improvement in its operating cash flow. On the basis of these solid foundations, we approved a plan to develop the Group's great potential, with increasing earnings and greater value creation for our shareholders.

The plan is based on the following strategic priorities:

- > maintaining our leading position in the markets where we are already present;
- > continuing to integrate and consolidate the companies acquired;
- > pursuing operating excellence;
- > developing renewable and nuclear energy, as well as promoting technological innovation.

The Company will also continue to pursue financial stability through the careful management of operating cash flow and initiatives to leverage several assets in our portfolio with the aim of further reducing the level of our debt. ...

The following parts of the 2009 Annual Report contain in-depth observations on the situation in which Enel operates: the letter to shareholders and other stakeholders (page 10), the summary of results (page 19), significant events in 2009 (page 25), the Reference Scenario (page 39), main risks and uncertainties (page 138), and contingent liabilities and assets (page 266). They are available in the Investor Relations section of Enel's institutional web site (http://www.enel.com/en-GB/investor/financial_reports/annual/)

The size of the Group and the validity of the strategies adopted have enabled Enel to maintain its performance in spite of the unfavorable macroeconomic situation and constitute a solid foundation for pursuing our objectives, as well as an opportunity to take advantage in a timely fashion of any acceleration of the economic recovery.

These foundations will allow Enel to continue its projects aimed at establishing its leadership in the areas where it is present, benefiting from the optimal diversification, both technological and geographical, of its plants, as well as from a competitive cost structure.

In addition, the Group will continue to invest in research and the development of renewable energy sources, pursuing technological excellence without neglecting its concern for environmental issues. Our plans for the return of nuclear power to Italy will also move forward in line with developments in the legislative framework.

Further benefits, in terms of both cost containment and improved cash flow, are expected from the operating excellence programs in progress and the synergy that will be achieved from increasing integration with Endesa.

The contribution of these programs and all the other efforts being made will enable the Company to achieve the targets announced for 2010. In particular, the planned extraordinary transactions to optimize our portfolio and the generation of operating cash flow will enable us to reduce our debt, with a consequent improvement in the financial position of the Group.

In this regard, we have begun the reorganization the Renewable Energy Division, the benefits of which will also be leveraged by the sale of a minority interest in Enel Green Power.”

The main risks and uncertainties the Group faces are connected with the following matters:

- > Market liberalization and regulatory changes;
- > CO₂ emissions,
- > Commodity prices and supply continuity;
- > Credit and liquidity risk;
- > Rating risk;
- > Exchange- and interest-rate risk;
- > Other risks.

For these matters, see the 2009 Annual Report, pp. 138 to 140.

Enel and the financial markets

In spite of the deep recession that characterized 2009, the global economy improved in the second half of the year. Boosted by the expansionary policies enacted by the major economies, the economic recovery began in the summer and continued during the rest of the year.

Enel shares ended 2009 at 4.048 euro (+1.53% with respect to January 1, 2009). On November 26, 2009, the Company paid an interim dividend of 10 eurocents on its 2009 net income. Added to the amount already distributed on June 25, 2009, this raised the total paid during the year to 39 eurocents per share. As of December 31, 2009, the Ministry of the Economy and Finance owned 13.9% of Enel's shares, Cassa Depositi e Prestiti 17.4%, institutional investors 38.1%, and individual investors 30.6%.

Enel and market fundamentals

In 2009, the prices of energy commodities gradually recovered from the minimums recorded towards the end of 2008. This was due more to the confidence of the players in the recovery of the world economy than to the actual strengthening of market fundamentals. The most acute phase of the crisis was over by the second half of 2009, with commodity prices recording a recovery with respect to the first few months of the year. The price of Brent crude oil ended 2009 at 77 U.S. dollars a barrel (against 40 U.S. dollars a barrel in February), returning to its 2007 level. As far as exchange rates are concerned, the euro ended 2009 at 1.44 U.S. dollars, thanks to the recovery recorded in the second half of the year, which was brought about by the return of investment in

the higher-risk markets (1.45 euro/U.S. dollar in the second half against 1.33 in the first half).

Enel and the countries in which It operates

In 2009, the international economy was characterized by a deep recession – the most serious one since the end of the Second World War – which began at the end of 2007 following the financial shock that took place in the summer of the same year. The most acute phase occurred in the first half of 2009. Thanks to the effects of monetary and fiscal policies implemented by governments throughout the world, the second quarter of 2009 marked the beginning of an upswing from the trough of the business cycle, and in the third quarter almost all economies recorded a turnaround.

Consequently, the governments of many of the countries in which Enel operates enacted various kinds of support for their citizens against the crisis, including measures to contain energy prices.

In **Italy**, law n. 2/2009 – the so-called “Anti-crisis” law – converted decree law n. 185 of November 29, 2008, introducing new provisions on the wholesale electricity market and final rates. In particular, article 3 of the law provides for the AEEG to adopt measures to adjust electricity and natural-gas prices to the decrease in the price of oil.

In **Spain**, Royal Decree Law n. 6/2009 introduced a social measure, the so-called “bono social”, which provides for discounts on the bills of certain categories of customers, to be completely financed by the producers, with Endesa’s share amounting to 36.77%.

In **Russia**, because of the crisis, for 2010 the government provided for a limited increase in the regulated rates of end customers (7.6% for industrial customers, 10% for residential customers).

In **Argentina**, in August 2009, the government re-introduced subsidies for end consumers of electricity for four months, in order to interrupt temporarily the effects of the rate increases of between 30% and 300% introduced in November 2008 for customers consuming more than 1,000 kWh. The measure ceased to have effect in October 2009.

For a more detailed disclosure of what happened in the countries of Enel’s boundary during reporting year 2009, see the chapter dedicated to the “Reference Scenario” in the 2009 Annual Report (pp. 39 to 85).

2010-2019 Sustainability Plan, Main Results of 2009, and Stakeholder Engagement

In line with the sustainability plans of past years, the strategic priorities for the sustainability of the Enel Group are integrated in the long-term 2010-2019 Business Plan, which lays out the the Company's path of economic growth within a strategic framework of environmental protection and social development. Enel has completed its international growth and is now one of the most important energy companies in the world. The 2010-2019 Business Plan focuses on four strategic priorities:

- > maintaining our leading position in the markets where we are already present;
- > continuing to integrate and consolidate the companies acquired;
- > pursuing operating excellence;
- > developing renewable and nuclear energy, as well as promoting technological innovation.

In order to ensure that the strategic objectives are fully shared, every year the Chief Executive Officer sends heads of Enel SpA's operating divisions a "Plan Letter", which contains the guidelines of corporate social responsibility they should follow to identify the objectives and specify the issues requiring action in each of the Company's operating areas. The sustainability plans prepared by the operating units, which derive from the Plan Letter, are then included in Enel's sustainability control system, which is described in the "Management Approach and Performance Indicators" chapter of this Report. As with the guidelines on the specific objectives and issues requiring action, several common premises to follow connected with the corporate climate, individuals, and health and safety are also announced.

During 2009 Enel initiated a series of initiatives aimed at achieving strategic objectives in terms not only of economic, but also social and environmental sustainability. First of all, the Company reviewed the new [Code of Ethics](#) and extended it to the entire Group. We also carried out [initiatives on monitoring and prevention with regard to supplier health and safety issues](#) and, in general, ones on informing and training employees about safety culture and getting them to accept their responsibilities in this regard, such as the introduction of related objectives (MBO). The promotion of energy efficiency in end use through the introduction of differentiated rates and the use of online Alternative Dispute Resolution for all electricity and gas customers constituted elements of support for our customers at this time of economic crisis. Enel's commitment to engaging, listening to, and discussing with all the local communities affected by the Company's infrastructure works was fulfilled in a series of community-level meetings and technical workshops and in a broader [community engagement strategy](#).

Our Sustainability Plan is a "[stakeholder-oriented](#)" presentation of the objectives of the Business Plan. The new structure of the Plan replaces the one by divisions published last year and aims to report in a clearer and more transparent way the objectives and their impact on our stakeholders and thus, in the last analysis, to construct a [reporting model that is adjusted to the requirements of the various interest groups and is easy to share with the Group companies](#).

In drawing up this Plan, we applied the principles of the AA1000APS (Accountability Principles Standard) issued in 2008 by [AccountAbility](#), an international research institute dedicated to sustainability issues:

- > [Inclusivity](#) means facilitating stakeholder participation in the development and achievement of a responsible and strategic response to sustainability;
- > [Materiality](#) means determining the importance and significance of an issue for an organization and its stakeholders;
- > [Responsiveness](#) is an organization's response to the legitimate expectations of its stakeholders regarding its performance.

Stakeholder engagement, or inclusiveness, was one of the fundamental elements in the definition of our Sustainability Plan. For some time Enel has been using a number of instruments and initiatives to collect and analyze the requests of stakeholders in order to integrate them with its strategic choices, which has led to the definition of material macro areas of engagement for every stakeholder category, as shown in the table below.

On the instruments of engaging stakeholders, see the section on stakeholder engagement on page 61 of this Report.

For each objective and the related lines of action presented in the Sustainability Plan, in 2009 Enel initiated a series of projects and initiatives, which are reported in the related sections of this Report and summarized as lines of action in the following table.

Shareholders and Other Providers of Capital

Sustainability Plan

MACRO AREAS OF COMMITMENT materiality	OBJECTIVES materiality	LINES OF ACTION responsiveness	IN THIS REPORT responsiveness
Sustainable policy of dividends and debt reduction	■ Continual debt reduction	■ Disposal of non-core assets and strict financial discipline in selecting investment projects	pp. 13-14, 58
	■ Leadership in the Company's markets	■ Organic growth, structural synergy, and operating excellence	pp. 13-14, 16, 77-79, 174, 178, 214-218, 223, 224-225, 299
	■ Sustainable development	■ Growth in renewable energy and geographical diversification	pp. 13-14, 24, 35, 65-66, 77-79, 82, 86, 101-102, 108-111, 127-131
Sustainable and enduring value creation	■ Risk management from the strategic point of view	■ Analysis and assessment of risk-control processes	pp. 41-44
Fairness and transparency in the conduct of business	■ Maintenance of a corporate governance model that ensures the utmost transparency	■ Alignment of all Group companies with the same corporate governance through the coordination of the three instruments of self-regulation Code of Ethics, ZTC Plan, and Legislative Decree 231/01 compliance program*. *The compliance program applies only to the Italian companies, but guidelines are being prepared for the companies abroad.	pp. 59-61, 211, 239, 275-278
	■ Maintenance of complete and accurate information for our shareholders and lenders	■ Transparency and frequency of financial information and of relations with institutional and retail investors	pp. 24, 39, 62, 77
		■ Continuous oversight of relations with ethical investors by dedicated units	pp. 62, 69, 77

Sustainability Plan

MACRO AREAS OF COMMITMENT materiality	OBJECTIVES materiality	LINES OF ACTION responsiveness	IN THIS REPORT responsiveness
Service quality	■ Customer care and Customer relationship	■ Extension of points of contact with customers and development of new channels through technological innovation	pp. 285-286, 296, 301, 303, 309
		■ Strengthening instruments for surveying and monitoring customer satisfaction	pp. 62, 285-286, 301, 308-314
		■ Extending Alternative Dispute Resolution to the entire Group in order to manage disputes more quickly and efficiently	pp. 71, 269, 302-303
	■ Personalization of customer service	■ Development of instruments and services for customers with specific requirements in order to achieve greater social inclusiveness	pp. 287-288, 289, 290-291
Sustainability of supply	■ Reduction of supply interruptions	■ Increased network efficiency through technological innovation and infrastructure rationalization	pp. 80, 285, 305-306
	■ Promotion of energy efficiency in end use	■ Making end users more aware of energy efficiency	pp. 81-82, 296-301

Customers

Sustainability Plan

MACRO AREAS OF COMMITMENT materiality

OBJECTIVES materiality

LINES OF ACTION responsiveness

IN THIS REPORT responsiveness

Employees

Corporate climate based on shared values		<ul style="list-style-type: none"> Initiatives of information and awareness-raising on sustainability inside and outside the Group 	pp. 191, 205, 206-207, 222, 234, 239, 276
	<ul style="list-style-type: none"> Dissemination of sustainability culture 	<ul style="list-style-type: none"> Integration of sustainability in the monitoring and assessment systems 	p. 214-215
		<ul style="list-style-type: none"> Promotion of sustainability in relations with labor unions in all the countries in which Enel has operations 	pp. 205-206
	<ul style="list-style-type: none"> Improvement of the corporate climate 	<ul style="list-style-type: none"> Increasing the instruments for surveying and monitoring the corporate climate Leadership model and performance reviews extended to the entire Group 	pp. 191, 222, 226 pp. 191, 222
Integrity and safe- guard of individuals	<ul style="list-style-type: none"> Promotion of diversity and equal opportunity 	<ul style="list-style-type: none"> Implementation of initiatives for the safeguard and promotion of diversity 	pp. 192, 227
		<ul style="list-style-type: none"> Supplementary services (health care, cultural and recreational activities) for employees 	pp. 203-204, 219-221, 223-224, 240-241
	<ul style="list-style-type: none"> Promotion of corporate-welfare initiatives 	<ul style="list-style-type: none"> Using instruments and services for improving the balance between private and professional life 	pp. 219-221, 222, 223, 240-241
		<ul style="list-style-type: none"> More mobility management initiatives 	pp. 123, 148, 241
Occupational health and safety		<ul style="list-style-type: none"> Extension of management policies and systems to all the companies of the Group 	pp. 194-198, 211-212
	<ul style="list-style-type: none"> Adoption of a single safety standard in all corporate workplaces 	<ul style="list-style-type: none"> Intensification of training activities to all professional families 	pp. 191, 212-213
		<ul style="list-style-type: none"> Intensification of prevention and monitoring 	pp. 196-198, 213-216
	<ul style="list-style-type: none"> Dissemination and promotion of safety culture 	<ul style="list-style-type: none"> Creation of initiatives and instruments facilitating the sharing of experiences and best practices on safety throughout the Group 	pp. 210-213
Personal development		<ul style="list-style-type: none"> Dissemination of internal best practices and promotion of operating excellence throughout the Group 	pp. 191-192, 223
	<ul style="list-style-type: none"> Formation and promotion of capabilities 	<ul style="list-style-type: none"> Dissemination of knowledge management systems 	pp. 191-194
		<ul style="list-style-type: none"> Initiatives supporting the new leadership model 	pp. 191, 222
	<ul style="list-style-type: none"> Development of assessment and incentive systems capable of attracting the most talented 	<ul style="list-style-type: none"> Creation of a talent management system and activities to develop talent pools 	pp. 192-194, 226

Sustainability Plan			
MACRO AREAS OF COMMITMENT materiality	OBJECTIVES materiality	LINES OF ACTION responsiveness	IN THIS REPORT responsiveness
Sustainability in relations with suppliers	<ul style="list-style-type: none"> Promotion of sustainability criteria in the selection of suppliers and in relations with contracting firms 	<ul style="list-style-type: none"> Formalization of a system for monitoring suppliers' respect for the rights of their workers 	pp. 242-243
		<ul style="list-style-type: none"> Revision of tender procedures from the safety point of view to align contracting firms with Enel's safety standards 	pp. 16, 243
		<ul style="list-style-type: none"> Adoption of green procurement practices 	p. 242
		<ul style="list-style-type: none"> Fairness and transparency in selection process and relations with suppliers 	pp. 88-89, 238, 242-243, 276

Sustainability Plan			
MACRO AREAS OF COMMITMENT materiality	OBJECTIVES materiality	LINES OF ACTION responsiveness	IN THIS REPORT responsiveness
Access to electricity	<ul style="list-style-type: none"> Promotion of initiatives to ensure access to electricity 	<ul style="list-style-type: none"> Construction of plants for generating and distributing electricity in less-developed countries, in particular regarding rural electrification 	pp. 62-64, 287-288, 291
Climate Strategy	<ul style="list-style-type: none"> Diversification of energy sources for electricity generation 	<ul style="list-style-type: none"> Generation of electricity from nuclear energy 	pp. 171-180
		<ul style="list-style-type: none"> Generation from renewable energy sources 	pp. 127-131
		<ul style="list-style-type: none"> Continual technological improvement of generating plants in countries with Group operations 	pp. 101, 103-111, 117
	<ul style="list-style-type: none"> Research and development in technologies for the long-term environmental sustainability of energy 	<ul style="list-style-type: none"> Development of technologies for carbon sequestration and emission containment 	pp. 106-112, 172, 184
		<ul style="list-style-type: none"> Development of smart grids and electric mobility 	pp. 111-112, 297-298
		<ul style="list-style-type: none"> Commitment to research on overcoming barriers to increasing the use of renewable energy 	pp. 103-112

Communities

Sustainability Plan			
MACRO AREAS OF COMMITMENT materiality	OBJECTIVES materiality	LINES OF ACTION responsiveness	IN THIS REPORT responsiveness
Dialogue with communities	Transparent information and openness to discussion with communities	Engagement with local communities affected by the construction of large infrastructure works	pp. 62, 249, 251-253, 274
		Promotion of initiatives aimed at disseminating knowledge about nuclear energy	pp. 66, 177-178, 251, 260, 262, 270-271
		Engagement of local communities in initiatives aimed at informing citizens about energy and environmental issues	pp. 249-251, 259, 260, 262, 268-269
Management of environmental impact	Minimization of environmental risks	Extension of environmental certification to all the Group's plants	pp. 139-142
	Safeguard of biodiversity and the landscape	Promotion and preservation of the natural inheritance in the countries with Group operations and in the green areas near Group plants	pp. 132-144
Support for communities	Donations to and investment in communities	Commitment to the growth and development of local communities through culture and sports	pp. 63-64, 128, 257-269
		Promotion of charitable initiatives among employees	pp. 261, 265, 266, 268
		Support of socially valuable initiatives	pp. 90, 98, 289, 321-325
		Development of businesses with a social purpose	pp. 90, 98, 287, 290-291, 300-301, 307-308
		Promotion of projects to facilitate access to electricity	pp. 63-64, 159-161, 287-291, 297-298

Institutions

Sustainability Plan			
MACRO AREAS OF COMMITMENT materiality	OBJECTIVES materiality	LINES OF ACTION responsiveness	IN THIS REPORT responsiveness
Commitment to good citizenship	Promotion of dialogue with local, national, and international institutions	Cooperative relations with public institutions at the national and international level	pp. 62-63, 117, 250-251, 251-253, 269-275
		Proactive role in industry and trans-industry discussions to promote sustainability issues	pp. 63-67, 205-208, 277-278

Sustainability Plan			
MACRO AREAS OF COMMITMENT materiality	OBJECTIVES materiality	LINES OF ACTION responsiveness	IN THIS REPORT responsiveness
Commitment to good citizenship	■ Creation of long-term partnerships with interest groups	■ Continuous and constant attention to the needs and expectations expressed by interest groups	pp. 61-63, 253, 262, 269, 272, 282
		■ Discussion of critical activities and planning on shared objectives	pp. 251-254, 269-275
Development of shared planning experience	■ Projects in close cooperation with interest groups	■ Environmental projects and ones to raise awareness of citizens with regard to sustainable development in partnership with environmental associations	pp. 117, 132-133, 261
		■ Innovative solutions for conciliation con Innovative solutions for Alternative Dispute Resolution	pp. 71, 269, 302-303
		■ Promotion of communities through projects in partnership with local governments and business organizations	pp. 269, 271, 302
		■ Promotion of culture and sports	pp. 258, 259, 260, 261, 262, 263, 265, 266, 267, 268-269

Enel according to the media

According to surveys conducted in 2009 by Eikon to assess the media image of major Italian companies, Enel's image in the Italian media merits a positive rating, between 0.6 and 0.9 on a scale ranging from -1 to +1.

In addition, Demoskopea analyzed the leading Italian financial journalists' assessment of corporate media relations offices, with Enel coming out in first place in terms of competence, timeliness, transparency, and willingness to discuss issues. The main [criticisms](#) in Italy come mainly from local media and concern service problems, connection delays, supply interruptions because of work or force majeure, and billing errors.

The **Italian media** highlighted the judicial investigations of allegations concerning noncompliance with environmental regulations – which in some cases have already been dismissed – the periods of negative performance by the Company's shares on the stock market, the fines imposed by the Antitrust Authority for the unfair conduct of several business agents, extensive breakdowns on the network because of weather emergencies, complaints about the excessive cost of electricity, and Greenpeace's protests against coal-fired power plants, to which not only the Company, but also employees themselves gave precise responses. [Positive comments](#) regarded mainly investment, strategic acquisitions in Italy and abroad, the periods of positive performance by the Company's shares on the stock market, commitment to the development throughout the world of renewable energy sources, corporate social responsibility initiatives, sponsorships of cultural, sports, and musical events, and initiatives to reduce the environmental impact of electricity production (CO₂ capture and storage, development of photovoltaic and thermodynamic solar energy), distribution (smart grids, digital meters), and end use (LED street lighting, electric cars). The media also carried a number of articles regarding Enel's commitment to bringing nuclear energy back to Italy.

At the **international level**, the main [criticisms](#) in the local and national media of the countries where Enel is present regarded protests of environmental associations such as Greenpeace and doubts about the Group's ability to reduce the debt entailed by its international expansion in the last few years.

[Positive comments](#) regarded, among other things, Enel's development of renewable energy and the Company's support of projects concerning innovation and technological development such as photovoltaic energy and smart grids, as well as its commitment to electric mobility and corporate social responsibility initiatives. Mention should also be made of Enel's capital expenditure in the countries where it is present to upgrade its generating plants (Russia and Bulgaria), including by developing renewable energy sources (Romania, France, Greece, United States, Latin America), and its distribution networks through the introduction of digital meters (Spain). For example, Russia's national media and highest authorities cited Enel a number of times as a model, because the Company fulfilled its commitments regarding investment in the country.

Other positive comments regarded Enel's commitment to supporting communities in particularly needy areas, especially in eastern Europe and South America. Enel Cuore's initiatives supporting voluntary and non-profit organizations in

charitable projects attracted the interest of the national media, especially in Bulgaria, Romania, and Latin American countries.

Between the end of 2009 and April 15, 2010, the following significant events reported by the media took place:

> **FIRST ENEL SUSTAINABILITY DAY**

On February 8, 2010, the first Enel Sustainability Day was held, with the objective of sharing and promoting a responsibility culture to support the creation of new ideas and the definition of the best practices in the field of sustainability at the global level. Among the participants were the Minister of the Environment, Land, and Sea, Stefania Prestigiacomo, and several of the most important industry representatives at the international level.

“Business as Unusual”: this was the theme of the event, which was presided over by Mervyn King, chairman of the GRI, a professor of Corporate Citizenship at the University of South Africa, and a member of the World Bank’s advisory group on corporate governance.

> **THREE-BILLION-EURO BOND ISSUE**

On February 10, 2010, the Consob authorized the publication of the prospectus regarding the public offering and listing on Borsa Italiana’s Electronic Bond Market (MOT) of Enel’s fixed-interest and variable-interest bonds reserved to retail investors in Italy and other European countries (specifically France, Germany, Belgium, and Luxembourg), originally in the maximum total amount of two billion euro, which was increased to three billion euro on February 18, 2010 following requests by investors.

> **RIORGANIZATION OF THE RENEWABLE ENERGY BUSINESS**

The boards of directors of Endesa SA (Endesa) and Enel SpA approved, respectively on March 15, 2010 and March 17, 2010, a deal that provides for the integration of the activities of Endesa and Enel Green Power SpA (EGP) in the field of renewable energy in Spain and Portugal.

> **AN ACCIDENT AT TORREVALDALIGA NORD**

On April 3, 2010, Sergio Capitani, an employee of the Guerrucci company, was killed in an accident at the Torrevalaliga Nord thermoelectric power plant.

The investigation is in progress, with which Enel is cooperating extensively, will fully reconstruct how the accident occurred.

Litigation

Further information on the significant litigation in which Enel is involved can be found in the “Contingent liabilities and assets” section, pp. 266-275, of the 2009 Annual Report, which is available at www.enel.com, the Company’s institutional website, in the Investor Relations section (http://www.enel.com/en-GB/investor/financial_reports/annual)

The Enel Group is a party in a number of legal proceedings regarding the production, transportation, and distribution of electricity. Given the nature of such litigation, it is not always objectively possible to foresee the final outcome of the proceedings, several of which could result in an unfavorable decision. Also pending are a number of proceedings concerning city planning, the landscape, and the environment – mainly with regard to exposure to electromagnetic fields – connected with the construction and operation of several generating plants and transportation lines.

The following are the most important proceedings regarding sustainability in which the Enel Group is involved.

Environmental Litigation

In Italy, environmental litigation regards mainly the installation and operation of electric plants of Enel Distribuzione, which succeeded Enel SpA in the related relations. Enel Distribuzione is a party in a number of civil and administrative proceedings, in which – as precautionary measures, often with urgent procedures – people who live in the vicinity of portions of the electricity network request that the latter be moved or operated in a different way on the basis of the alleged potential harmfulness of the plants, even though, in the Company's opinion, the latter were installed in compliance with the regulations in force. In several cases, compensation has been requested for damage to health claimed to be a consequence of exposure to electro-magnetic fields. The outcomes of such proceedings is generally favorable to the Company. A decision in February 2008 found that the Company had complied with the limits of exposure to electro-magnetic fields provided for by the relevant regulations, which – in accordance with the most highly accredited studies on the question and the trends emerging at the European level – ensure the safeguard of health. There have been unfavorable restraining orders in sporadic cases, but these have all been appealed. At the present time, there have been no definitive negative decisions and in no case has a request for compensation for damage to health been upheld, while only one decision – in February 2008, which has been appealed at a higher court – has recognized damage connected with the stress caused by the presence of a power line and the fear of possible negative effects on one's health. There are also proceedings regarding electro-magnetic fields around medium- and low-voltage substations located inside buildings, which, however – according to the Company's experts – comply with the limits of induction provided for by Italian law. In this regard, recent decisions have confirmed that compliance with the specific regulations in force ensures that health is protected. In August 2008, the Corte di Cassazione handed down a decision – regarding a 380-kW "Forlì-Fano" power line no longer owned by Enel – that, in contrast with current scientific knowledge of the matter, held that there was a causal connection between the headaches reported by several persons and their exposure to the electro-magnetic fields. The situation regarding such litigation has gradually changed thanks to the clarification of the legislative framework introduced by law n. 36 of February 22, 2001 on protection from electro-magnetic pollution and the implementation decree regarding power lines (Prime Minister's Decree of July 8, 2003). In effect, the provisions thus introduced harmonized regulations throughout Italy. Among the other things provided for was a program to last ten years, starting from the day when the aforesaid Law. n. 36/2001 went into effect, to rehabilitate power lines, as well as making it possible to entirely or partially recover, through rates, the expense incurred by the owners of transmission and distribution lines and substations, according to criteria to be established by the AEEG, pursuant to Law n. 481/95, because such costs are incurred in the general interest. The Prime Minister's Decree regarding the determination of the criteria for preparing plans for the rehabilitation of power lines (article 4, paragraph 4 of Law n. 36/2001), which is necessary for distributors to present their proposals for such plans to the Regions (article 9, paragraph 2, Law n. 36/2001), has not been issued yet. The decree dated May 29, 2008 of the General Director for environmental protection of the Ministry of the Environment, Land, and the Sea approved the procedures for measuring and assessing electro-magnetic induction, pursuant to article 5, paragraph 2 of the Prime Minister's Decree of July 8, 2003. In addition, the same Ministry's Decree of May 29, 2008 approved the calculation

methods for determining the amount of space that must be left around power lines, pursuant to article 4, paragraph 1, letter h) of law n. 36/2001. Finally, also pending are several proceedings regarding city planning and the environment, which are connected with the construction and operation of a few generating plants and distribution lines. Generally speaking, an examination of these cases leads to the conclusion that negative outcomes are highly unlikely. However, in a small number of proceedings it is possible that there will be unfavorable decisions, whose consequences could consist in the expense connected with changes in the plants and the temporary unavailability of the same, in addition to the payment of damages.

The investigation of former executives by the Public Prosecutor of Milan and the Court of Accounts

In February 2003, the Public Prosecutor of Milan started proceedings against former directors and executives of Enelpower, as well as third parties, for several crimes to the detriment of the Company. The crimes consisted in, among other things, the acceptance of payments from suppliers for the award of several orders. On April 29, 2009 some of the accused – including a former CEO and a former executive of Enelpower and a former CEO of Enel Produzione – were put on trial before the Court of Milan. The preliminary hearing was held on January 16, 2008 and subsequently the judge conducting the preliminary investigation allowed Enel SpA, Enelpower SpA, and Enel Produzione SpA to sue for damages. On April 27, 2009, the judge conducting the preliminary investigation passed down a verdict based on plea bargaining for several of the defendants, while the two former directors and the Enelpower executive were committed for trial. The proceeding began on February 12, 2010 and is still in progress. In accordance with resolutions adopted by their respective boards of directors, Enel, Enelpower, and Enel Produzione became the plaintiffs in the proceeding and took specific actions, both judicial and out-of-court, which have led to agreements whereby Siemens, Alstom, and the agent Emirates Holdings will pay compensation to Enelpower. During this time, the Court of Accounts filed a lawsuit against the former chief executive officer and the former executive of Enelpower, as well as former chairman of Enel Produzione, mentioned above to ascertain their liability for damage to revenue. Enel, Enelpower, Enel Produzione took part in the trial to support the regional Public Prosecutor. In its decision n. 114106 of February 22, 2006, the Court of Accounts held the former directors and executives liable and established damages in favor of Enelpower totaling about 14 million euro. The decision was appealed by both the Prosecutor General of the Court of Accounts – Lombardy section and the former directors and executives. On December 3, 2008, the Appeals Section of the Court of Accounts of Rome handed down decision n. 532/2008, which upheld the decision and increased the damages in favor of Enelpower to about 22 million euro. The decision also upheld the attachment of appellants' property ordered by the Regional Public Prosecutor and sentenced the same to pay the judicial expenses of both proceedings. In February 2009, the decision was appealed by the former chairman of Enel Produzione to the Court of Cassation, which on December 19, 2009 upheld the jurisdiction of the Court of Accounts for the damage to its image suffered by the Ministry of the Economy and Finance caused by the defendants, while it quashed the appeal decision, because the Court of Accounts did not have jurisdiction with regard to damage concerning companies.

Consequently, Enel SpA, Enelpower SpA, and Enel Produzione SpA took steps to recover all the damage suffered before the competent ordinary judge. Further, in parallel with aforesaid the penal proceeding and trial concerning revenue liability, Enel Produzione and Enelpower initiated revocatory actions against the assignees of the former chief executive officer of Enel Produzione and the former chief executive officer and former executive of Enelpower, obtaining the ineffectiveness of several sales of their assets. Finally, more than 300,000 euro have already been recovered from the former directors and executives.

Judicial and extrajudicial litigation connected with the blackout of September 28, 2003

After the blackout of September 28, 2003, numerous judicial and extrajudicial requests for damages and automatic compensation were presented in Italy. Such requests gave rise to considerable litigation before justices of the peace, which was concentrated essentially in Campania, Calabria, and Basilicata and amounted to a total of about 150,000 proceedings. The Company believes that the expense can be partially recovered through the insurance coverage in effect. About two-thirds of the decisions of the justices of the peace were favorable to the plaintiffs, while almost all of the court judges to whom the cases were appealed have decided in favor of Enel Distribuzione, stating that proof of the damage reported was lacking and that the Company was extraneous to the event. The few decision unfavorable to Enel Distribuzione were all appealed to the Court of Cassation. The latter has always ruled in favor of Enel, confirming its original view, expressed in orders n. 17282, 17283, and 17284 of July 23, 2009, which – upholding the appeals and rejecting the customers' requests – absolutely excluded Enel Distribuzione's liability. In May 2008, Enel gave the insurance company notice of a summons aimed at determining, in accordance with its policy, its right to be reimbursed for what it had paid in consequence of the unfavorable decisions. In June 2009, there were about 90,000 proceedings for the blackout in 2003 that were still pending and there were substantially fewer new actions because of the effect of the definitive rulings and/or renunciations of actions by plaintiffs.

Litigation regarding ways of paying bills free of charge

After a long investigation started in 2006, on March 21, 2007, the Electricity and Gas Authority (AEEG) published resolution n. 66/07, which inflicted an administrative fine on Enel Distribuzione amounting to 11.7 million euro for its alleged violation of the provision of a preceding resolution (n. 55/2000), which made it obligatory for electricity bills to mention the free-of-charge method as one of the payment methods that can be used by customers. Considering the fine illegal for a number of reasons and its amount disproportionate, Enel Distribuzione appealed to the Administrative Court (TAR) of Lombardy to have the resolution and the penalty nullified. On October 30, 2007, Enel Distribuzione paid the fine, reserving the right to claim it back after the decision was handed down in the proceeding pending at the Lombardy TAR. Upholding Enel's thesis, on January 29, 2008 the TAR excluded the existence of a regulation that requires Enel to publicize the free-of-charge method of payment on its bills and thus acknowledged that the company had acted within the law. In accordance with the decision of the administrative court, Enel asked to AEEG to return the sum it had paid as the fine. The AEEG appealed the case to the Council of State, whose decision on February 26, 2010 upheld the appeal within the limits defined in the

statement of reason, which has not yet been made public. In any case, meanwhile, the civil litigation initiated by customers before justices of the peace to obtain compensation for the alleged damage – all of which amounts to very little – has increased, with more than 40,000 proceedings are pending, almost of which are taking place before justices of the peace in Campania and Basilicata. Although most of the decisions so far have been unfavorable to Enel, there has recently been an opposite trend at numerous appellate courts.

The Porto Tolle thermal power station - Air pollution - A criminal proceeding against Enel Directors and employees - Compensation for environmental damage

After a criminal proceeding that began in 2005, on March 31, 2006 the Court of Adria convicted Enel employees and former Directors of several occurrences of air pollution through emissions by the Porto Tolle thermal power plant. Provisionally enforceable as far as its civil effects are concerned, the decision, among other things, the employees and Enel jointly and severally to pay damages to a number of physical persons and local governments. Such compensation amounted to 367,000 euro for some parties, mostly private individuals, while quantification of the damages in favor of several local governments (the Veneto and Emilia-Romagna regions, Rovigo province, and a number of municipalities) was postponed to a subsequent civil trial. However, the court liquidated interim compensation totaling about 2.5 million euro. The Company and its employees and former Directors appealed the Court of Adria's decision. On March 12, 2009, the Venice Court of Appeals partially reversed the aforesaid decision, absolving the former Directors because they did not commit the deed and excluding environmental damage, and thus ordering the revocation of the sums liquidated as interim compensation. The employees were given modest sentences and the damages to the private parties were halved. Both the Public Prosecutor and the parties suing for damages appealed the decision to the Court of Cassation.

Potential liabilities of the Endesa Group

There are three legal proceedings in progress against Endesa Distribución Eléctrica SL concerning forest fires at Gargallà (1994), Castellbisbal (1994), and Aguillar de Segarra (1998) in Catalonia, which could entail the obligation to pay the damages requested, amounting to an estimated total of about 44 million euro. Furthermore, in a special proceeding, the Generalitat de Catalunya fined the company 10 million euro for the supply interruptions that occurred in Barcelona on July 23, 2007. An appeal against the fine was upheld by the *Tribunal Superior de Justicia* of Catalonia on April 8, 2009.

On September 18, 2008, the Spanish Ministry of Industry, Tourism, and Commerce adopted a resolution in which it undertook to initiate a disciplinary proceeding against Endesa Generación because of the emission of radioactive particles at its ASCO I nuclear power plant. Following this proceeding, the Ministry fined Endesa Generación about 15 million euro for four serious and two slight infractions, as established by law n. 25/1964, a law on nuclear power. The company appealed the decision, and on December 1, 2009, the *Audiencia Nacional* decided to suspend payment of the fine against the issue of a special bank guarantee.

On July 2, 2009, the Spanish government decided that the *Santa Maria die Garoña* nuclear power plant, which is owned 50-50 by Endesa and Iberdrola, may remain in service until 2013, thus authorizing a four-year extension of the license, but rejecting the *Condejo de Energia Nuclear's* request for a ten-year extension. On September 14, 2009, a judicial appeal against the government's order was made to the *Audiencia Nacional*. On October 1, 2009, the investigation department of the *Comision Nacional de Competencia* began a proceeding concerning sanctions against Spanish electricity companies, because there was evidence that certain generating companies violated the *ley de competencia* and, in particular, that they took unfair advantage of their dominant position, with the possible coordinated involvement of several distribution companies. The companies concerned are Endesa, Iberdrola, E.on España, Gas Natural, Hidroeléctrica del Cantabrico, Nueva Generadora del Sur, Elcogas, and Electrabel España. Endesa is currently providing the documentation requested by the investigators.

On May 19, 2009, the *Ayuntamiento de Granadilla de Abona* gave Endesa notice of a 72-million-euro fine for the construction of the combined-cycle generating plant 2 at Granadilla.

On July 13, 2009, Endesa appealed against the fine to the administrative court. On September 18, 2009, the payment of the fine was suspended.

2. Organizational Profile

Enel SpA

Sales

Enel Servizio Elettrico
Enel Energia
Vallenergie

Generation and Energy Management

Enel Produzione
Enel Trade
Enel Trade Hungary
Enel Trade Romania
Nuove Energie
Hydro Dolomiti Enel
Enel Stoccaggi
Sviluppo Nucleare Italia

Infrastructure and Networks

Enel Distribuzione
Enel Sole
Deval

Engineering and Innovation

Enel Ingegneria e Innovazione

Iberia and Latin America

Endesa

International

Slovenské elektrárne
Enel Maritza East 3
Enel Operations Bulgaria
Enel Distributie Muntenia
Enel Distributie Banat
Enel Distributie Dobrogea
Enel Productie (formerly
Global Power Investment)
Enel Energie
Enel Energie Muntenia
Enel Romania
Enel Servicii Comune
RusEnergosbyt
Enel OGK-5
Enel Rus
Enel France
Enelco
Marcinelle Energie

Renewable Energy

Enel Green Power
Enel.si
Enel Latin America ⁽¹⁾
Enel Unión Fenosa Renovables
Enel Green Power Romania
(formerly Blue Line)
Enel North America
Enel Green Power Bulgaria
(formerly Enel Maritza East 4)
Enel Erelis
International Wind Power
Wind Parks of Thrace
International Wind Parks
of Thrace
Hydro Constructional
International Wind Parks of Crete
International Wind Parks
of Rhodes
International Wind Parks
of Achaia
Glafkos Hydroelectric Station
Aioliko Voskero

Services and Other Activities

Enel Servizi
Sfera
Enelpower
Enel.NewHydro
Enel.Factor
Enel.Re

(1) As from January 1, 2009 includes the results of Enel Latin America LLC, Inelec, and Americas Generation Corporation (which on October 30, 2008 merged with Enel Panama and Enel Panama Holding).



Canada 

USA 

Messico 

Guatemala 

El Salvador 

Costa Rica 

Panama 

Colombia 

Peru 

Brazil 

Argentina 

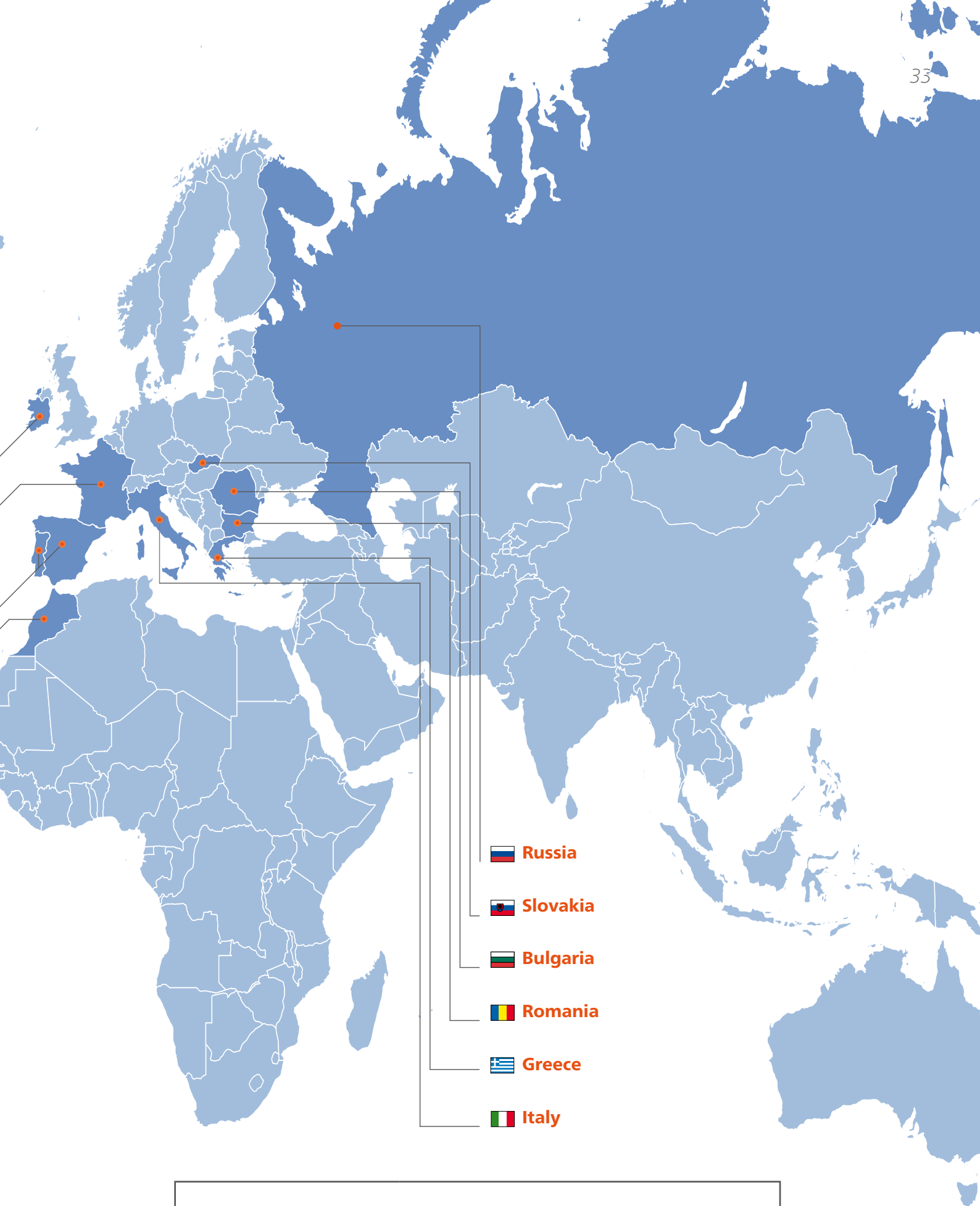
Chile 

Ireland 

France 

**Spain/
Portugal**  

Morocco * 



Enel in the World

In-depth information on the Group's financial position, the main changes in the scope of consolidation, and the most important events of 2009 are contained in the section entitled "Summary of Results" (pp. 19 to 23) of the 2009 Annual Report. The Report is available in the Investor Relations section of Enel's institutional website (http://www.enel.com/en-GB/investor/financial_reports/annual/).

As of December 31, 2009, there were 81,208 employees

(75,981 at the end of 2008). The increase, amounting to 5,227 employees, was due to changes in the Group boundary regarding the acquisitions and disposals of companies that took place during the year (+7,618 employees), which more than offset the balance between hires and terminations (-2,391 employees).

As of December 31, 2009, there were 43,087 employees working in the Group companies located abroad.

All the indicators regarding the workforce can be found on page 229 of the Report, at the end of the LA chapter.

The change in the number of employees with respect to December 31, 2008 is summarized below.

Number as of December 31, 2008	75,981 ⁽¹⁾
Changes in the Group boundary and acquisitions:	
- Acquisitions of companies	+348
- Sales of companies	-1,544
- Effect of the total consolidation of Endesa	+8,814
Hires	+4,644
Terminations	-7,035
Number as of December 31, 2009 ⁽²⁾	81,208

(1) Includes 67.05% of Endesa

(2) Includes 52 employees of companies classified as "held for sale".

In 2009, Enel changed its Group organizational structure in order to increase the efficiency of several strategic processes.

- > In particular, the Parent Company instituted the **Group Risk Management Department**, whose mission is to ensure the effective implementation and management of the risk management process at the Group level with regard to all financial, operating, business, and other risks.
- > At the same time, the Finance Department became part of the Accounting, Planning, and Control Department, which was renamed the **Accounting, Finance, and Control Department**.
- > The **Up-stream Gas Department**, whose mission is to develop and manage such activities for the Group, was created as part of the lines of business, reporting directly to the Chief Executive Officer.

The **Sales Division** has the mission of defending the final market of electricity and gas in Italy, developing an integrated offer of products and services addressed to the different customer categories, and ensuring compliance with the quality standards of the commercial service.

The **Generation and Energy Management Division** in Italy has the mission of producing electricity at competitive costs while respecting the environment.

The **Infrastructure and Networks Division** in Italy has the mission of ensuring the distribution of electricity and gas and optimizing network management, as well as ensuring the efficiency of metering systems and compliance with the quality standards of the technical service.

The [Iberia and Latin America Division](#) is dedicated to the development and coordination of Enel's lines of business in the electricity and gas markets of Spain, Portugal, and Latin America, devising a strategy for development in regional markets of interest.

The [Engineering and Innovation Division](#) has the mission of managing for the Group the engineering processes regarding the development and construction of generating plants, ensuring the achievement of the qualitative, temporal, and economic objectives assigned. It also has the task of coordinating and integrating the Group's research activity, ensuring the scouting, development, and exploitation of opportunities for innovation in all the business areas of the Group, with special regard to the development of initiatives with high environmental value.

The [International Division](#) has the mission of supporting Enel's international growth strategy, consolidating the management and integration of foreign businesses (with the exception of the Spanish, Portuguese, and Latin American markets and the businesses regarding renewable energy included in the Renewable Energy Division), and monitoring the opportunities for acquisitions in electricity and gas markets.

The [Renewable Energy Division](#) has the mission of developing and managing the generation of energy from renewable sources and ensuring that their integration in the Group is consistent with Enel's strategies.

The activity of the operating Divisions is supported by the "Parent Company" and "Services and Other Activities" areas, whose objective is to exploit Group synergy and optimize the management of the services that support Enel's core business.

With specific regard to the international boundary, Enel continues to integrate and rationalize the companies acquired, in particular in Slovakia and Romania, while in Russia a new organizational structure has been established for OGK-5.

GAS UPSTREAM – SEVERENERGIA

Enel was already present in the gas industry in Russia through its 40% equity stake in SeverEnergia, owned jointly with Eni. In 2009, Gazprom acquired 51% of the capital, becoming an operating owner. SeverEnergia owns three companies – Arcticgaz, Urengoil, and Neftegaztehnologia – which have licenses for the exploration and production of hydrocarbons, with estimated total reserves of 5 billion barrels of oil equivalent. Enel, Eni, and Gazprom are working on a plan for beginning to produce gas from the middle of 2011 and reaching at least 150,000 barrels of oil equivalent (BOE) a day by the end of the first two years of production.

SeverEnergia's management approach to sustainable development and the environment is based on strict compliance with Russian law and internationally recognized environmental and social standards.

Russian law provides for the assessment of the environmental and social impact of production, in order to minimize the damage caused by such activity. Relations are regulated by the Constitution of the Russian Federation, the Land Code, the Labor Code, the Subsurface Law, and other laws and regulations.

Thus, the Constitution and the laws implementing it guarantee the rights of all human beings to a healthy environment, reliable information on its condition, and compensation for damage to health caused by violation of environmental laws. Applying the Constitution, the federal laws of Russia adopt these principles and guarantee citizens the right to a healthy environment, without dangerous or harmful effects on the human body for present and future generations, as well as a series of other rights connected with the environment for citizens and associations. Consequently, there is an obligation to pay for damage to the health or property of citizens caused by violation of environmental laws.

In practice, the government monitors environmental conditions, compliance with environmental regulations, and systems that establish the liabilities for violating the obligation to ensure the environmental safety of the population.

The license agreements entered into by SeverEnergia regulate the Company's behavior in the areas in which it is involved, including environmental activity. The license agreements also provide that SeverEnergia and local governments cooperate to establish the conditions for the sustainable development of traditional agriculture and the improvement of the conditions of life of indigenous minorities.

Total observance of the license agreements is the fundamental principle on which the management of SeverEnergia is based. SeverEnergia has entered into agreements with local governments, which contain environmental commitments and incorporate elements that define their cooperation to create employment for local communities and support the socially vulnerable groups of the population. Particular attention is given to the protection of the rights of the indigenous minorities that inhabit the lands adjacent to the license areas.

In addition to that, SeverEnergia has developed a system of volunteer social work to support local communities with regard to children, minorities, schools, and hospitals.

The data regarding the shareholder base at the end of 2009 are contained in the extract of the letter to shareholders and other stakeholders on page 13 and are shown in detail on page 72 of the present Report, at the end of this chapter.

INCOME DATA

Millions of euro

	2009	2008
Revenue	64,035	61,184
Gross operating margin	16,044	14,318
Operating income	10,755	9,541
Group and minority-interest net income	6,390	6,034
Group net income	5,395	5,293
Group net income per share in circulation at year end (euro)	0.57	0.56 ⁽¹⁾

(1) For comparative purposes, Group net income per share at the end of 2008 has been calculated to take into account the diluting effect of the capital increase carried out in 2009.

Revenue in 2009 amounted to 64,035 million euro, an increase of 2,851 million euro (+4.7%) with respect to 2008. The rise was essentially attributable to the increase in revenue earned abroad as a result of the change in the consolidation method used for Endesa (from proportional to full) adopted as from the end of June 2009 following the acquisition of the remaining 25.01% of the company, as well as the different period of consolidation of Enel OGK-5, Enel Distributie Muntenia, and Enel Energie Muntenia, net of the deconsolidation of the Viesgo Group, which was sold in June 2008. These positive effects offset the decrease in revenue from the sale of electricity on the domestic market, which was essentially attributable to the lower volume sold because of the decline in demand.

The gross operating margin, amounting to 16,044 million euro, increased by 1,726 million euro (+12.1%). This increase was due essentially to the change in the consolidation method used for Endesa and the improvement in operating efficiency.

Operating income amounted to 10,755 million euro, an increase of 12.7% with respect to the 9,541 million euro of 2008 and a performance essentially in line with that of the gross operating margin.

Group net income for 2009 amounted to 5,395 million euro against the 5,293 million euro of the previous year, an increase of 1.9% on the previous year. This result was affected by the good performance of operations, which benefitted from a change in the method of consolidating Endesa, as well as the decrease in net financial expense inclusive of the proceeds (+970 million euro) from the early exercise of the put option that Enel granted Acciona on 25.01% of Endesa's shares. These positive effects were partially offset by the recording in 2008 of the benefit from the adjustment (net of the expense of the related substitute tax) of the deferred taxes stemming from the realignment of the differences between the values of corporate accounting and those of tax accounting regarding several tangible fixed assets, as well as the decrease in revenue from discontinued operations.

The data regarding tax payments are shown on page 73 of the present Report, at the end of this chapter.

OPERATING DATA

	Italy	Abroad	Total	Italy	Abroad	Total
	2009			2008		
Net electricity produced by Enel (TWh)	84.0	183.8	267.8	96.3	156.9	253.2
Net efficient capacity (GW)	40.4	54.9	95.3	40.3	42.2	82.5
Electricity transported on Enel's distribution network (TWh)	241.7	152.6	394.3	257.9	135.6	393.5
Electricity sold by Enel (TWh) ⁽¹⁾	127.4	160.3	287.7	137.2	133.2	270.4
Gas sold to end customers (billions of m ³)	5.2	3.4	8.6	5.7	2.5	8.2
Employees at year end (n.) ⁽²⁾	38,121	43,087	81,208	40,327	35,654	75,981

(1) Excluding sales to dealers

(2) Includes 52 employees of companies classified as "held for sale" (1,413 employees as of December 31, 2008).

The net electricity produced by Enel in 2009 increased by 14.6 TWh (+5.8%) because of an increase of 26.9 TWh in production abroad, which stemmed from a change as from June 2009 in the method of consolidating Endesa (+25 TWh) and increased production by Enel OGK-5 (+16.6 TWh, which reflected the different period of consolidation) and was partially offset by a decrease in production in Italy (-12.3 TWh), which – as in most industrialized countries – was affected by the slowdown in the world economy.

The electricity transported on Enel's distribution network amounted to 394.3 TWh an increase of 0.8 TWh (+0.2%), essentially the same as in the preceding year.

The electricity sold by Enel recorded an increase of 17.3 TWh (+6.4%), with sales totaling 287.7 TWh. The increase was due essentially to a rise in the quantity sold abroad (+27.1 TWh, including 25.6 TWh attributable to the different period of consolidation of Endesa) and was partially offset by the drop in the quantity sold in Italy (-9.8 TWh) because of the decrease in demand for electricity.

Sales of gas to end customers in 2009 amounted to 8.6 billion m³. Concentrated abroad and connected with the aforesaid change in the method of consolidating Endesa, the increase more than offset the decrease in sales in the domestic market.

Awards

Enel was awarded the [Ruban d'Honneur for the 2009 edition](#) of the European Business Awards in the Corporate Sustainability and Environmental Awareness categories, thanks to the instrument for dialoguing with its stakeholders that the Company implemented, as well as the "Safety Week" initiative launched in Italy and all the other countries where Enel is present. The prestigious European Business Awards, considered the "showcase" of European economic successes, are promoted by organizations such as CMS, AXA, Grey EMEA, Siemens, Société Générale, and The Wall Street Journal Europe. It was instituted in 2006 to reward the excellence and innovation of the companies of the 27 countries of the European Union that are deeply engaged in promoting corporate objectives, at all levels, for economic, industrial, and environmental development.

Enel won the [Report Oscar for the “Listed Company” category](#).

Sponsored by the Ferpi, the Italian Public Relations Federation, this prestigious award is given to companies and organizations that during the year have provided the best economic, social, and environmental reporting, as well as communicating continually in an effective and innovative way with all the people concerned.

Enel’s Chief Executive Officer, Fulvio Conti, said: “We are proud of this award. A large company like Enel has precise economic, social, and environmental responsibilities towards all its stakeholders. The presentation of reports that are complete and detailed, but at the same time legible and effective, is the foundation on which we must construct our dialogue with all our stakeholders in 23 countries throughout the world and the trust of 1.2 million shareholders who have decided to invest in our Company.”

In 2009, at the seventh edition of the [Sodalitas Social Award](#) for good social responsibility practices, Enel’s ‘International Safety Week’ Project won the first prize for the best program aimed at enhancing human capital. This is a coveted award sponsored by the Sodalitas Foundation, which promotes Corporate Social Responsibility (CSR) and the transmission of managerial culture to non-profit organizations.

Enel has been included in the 2010 [Dow Jones Sustainability World Index \(DJSI\)](#), the Company’s sixth consecutive year, and is the only Italian utility in the prestigious Dow Jones STOXX, which includes the 160 best companies in the world according to stringent criteria of economic, social, and environmental sustainability. Even with its reporting boundary extended to its subsidiaries OGK-5 in Russia and Endesa in Spain and Latin America (which has been confirmed in the DJSI World and as qualified for the DJSI STOXX), Enel improved its environmental and social performance in the Dow Jones final standings with respect to the previous year.

In 2009 Enel acquired certification as a [Top Employer](#), thanks to its excellent performance in human resource management, with particular distinction in the areas of personal development, CSR, knowledge management, and the management of talented young employees. Conducted annually by the Corporate Research Foundation (CRF), the Top Employers project is intended to highlight the best practices in the HR field. Thanks to the use of international standards, the CRF identifies the Top Performers through a method that makes use of questionnaires and interviews with several employees, who tell about their professional experience at the company.

Group Risk Management



On June 26, 2009, Enel centralized all the expertise and responsibility regarding risk management in the new "Group Risk Management" Department. The objective was to "ensure the top management of the actual implementation and control of the risk management processes for the entire Enel Group with regard to all financial, operating, business, and other kinds of risk".

According to the new structure, the Enel Group's Chief Risk Officer is completely independent and autonomous with respect to the business areas and reports directly to the Chief Executive Officer.

Most of the tasks previously entrusted to different organizational units has been centralized and is managed systematically, and thus benefit from the use of a common language, the sharing of information, and more opportunities for netting. In addition, at the beginning of 2010, a number of integration projects were launched regarding the development, assessment, measurement, concentration, and quantitative management of commodity, financial, credit, environmental, and operating risks.

The structure of the Group Risk Management Department is divided into the following areas:

- > Enterprise Risk Management;
- > Financial and Strategic Risk Management;
- > Commodity Risk Management;
- > Insurance and Environmental Risk Management;
- > Counterparty Risk Management;
- > Country Risk Management;
- > Operational Risk Management.

All the departments and units comprised by the [Group Risk Management Department](#) must also establish Group risk policies, carry out risk assessments, propose operating limits, identify possible mitigation strategies, and produce the overall and detailed reporting on each single kind of risk managed. A [Country Risk Management](#) Unit has been set up for the purpose of establishing a model for assessing country risk, setting forth guidelines for managing it, pinpointing the strategies, measures, and instruments of risk mitigation, and preparing specific studies and strategic support for Merger & Acquisition and business development, including the establishment of the country risk premium. It also manages relations with agencies insuring export credit for the Group. The pre-existing [Insurance Unit](#) has been entrusted with the additional responsibility of managing environmental risk and in particular of analyzing the results of risk assessment in this field and devising mitigation strategies. With regard to insurance, it has the additional tasks of the redefining the Enel Group's approach to the insurance market and managing its planning of captive insurance, assisting the Group divisions and companies in managing significant damage. The [Operational Risk Management](#) Unit is responsible for determining, measuring, reducing, and monitoring all the operating risks connected with the Enel Group's industrial processes. Together with the other relevant Units, the Operational Risk Management Unit analyzes the operating risks connected with the Enel Group's main investment projects and the completion of strategically important investment projects.

The **Commodity Risk Management** Unit is in charge of analyzing, monitoring, and controlling commodity risk (energy, fuels, metals, CO₂, etc), while the **Financial and Strategic Risk Management** Unit is responsible for analyzing, monitoring, and controlling all the Group's internal financial risks (i.e., exchange rate risk, interest rate risk, equity, liquidity). In addition, it has the task of implementing a "Business Plan at Risk" process on a consolidated basis, with the objective of assessing – through an integrated reference model and on a stochastic basis – the impact of the most important risk factors (for example, commodity prices, energy prices, electricity demand, interest rates, exchange, inflation, etc.) on the Company's results in terms of margins, cash flow, debt, and financial indices.

The results of these analyses will be important to assist the top management in defining an "appetite for risk" at the consolidated level that is consistent with the Company's targets in economic and rating terms, pinpointing possible business areas where actions to mitigate risks can be applied without significantly reducing margins, identifying an appropriate capital structure and the potential impacts of different scenarios on the current ratings, and in general defining and applying a suitable, responsible, and integrated risk strategy at the Group level. This complex system of Enterprise-Wide Risk Management operates in addition to the activities already carried out earlier (i.e., sensitivity analyses of different risk factors at the Group level, calculation of the Value at Risk, stop-loss strategies, and limit management), which have recently been further improved, with particular regard to the management of financial risks, thanks to the complete implementation at Enel SpA – and, in the near future, throughout the entire Group – of new financial software for the front-to-back integrated management of all the financial transactions carried out by all the Group companies. The liquidity risk is managed through a careful daily, weekly, monthly, and quarterly (carried out on a rolling monthly basis) financial planning process and an appropriate cash management, entering into credit line agreements, issuing commercial papers, and in general adopting a judicious funding policy.

Credit risk regarding financial counterparties is constantly monitored with regard to a minimum rating level. The Company avoids the concentration of positions between counterparties and uses credit support annexes (CSA) as risk-mitigation instruments.

Commercial risk is closely monitored by the **Counterparty Risk Management** Unit. By the end of 2010, a detailed situation of existing exposures – by country and division/company – will be updated and managed according to a new model for analyzing credit positions, which will be constantly updated and managed.

Integration towards an **Enterprise Risk Management** model is ensured by a special ERM Unit, whose task is to establish a common structure and the risk assessment criteria, as well as coordinating the risk assessment process entrusted to the line Risk Manager, defining priorities using a single enterprise risk management software to collect all the indicators regarding significant business risks (i.e., the main risks that can affect the income statements, cash

flow, and balance sheets of the Enel Group and its Divisions/Companies), producing integrated risk reporting for the top management, and carry out in-depth analyses on the determinants of the significant risks and their correlations. In addition to the foregoing, a new risk-governance system will be developed through the definition of rules, responsibilities, and information flows and the establishment of new risk committees. The Enterprise Risk Management project, which involves all the units of the GRM Department, began in the first quarter of 2010 and will end early in 2011.

After all these projects have been completed, the Company will have at its disposal a complete, uniform, and multi-faceted risk analysis – kind of risk/company/division/legal entity/risk owner/controls – for the entire Group, from which it can obtain an overall view of its exposure in terms of the probability and impact in a given time horizon or, if possible, in terms of the distribution of probabilities and impacts.

Consequently, **the Group's risk-management and risk-response strategy will be defined and aligned with the objectives and strategic targets at the Group and Division level and will have the benefit of a full and integrated view of the Company's risk position.** All this will enable the Company to implement more effective risk-mitigation strategies, with risk management becoming an additional, solid, and useful strategic instrument for devising better long-term strategies and thus avoiding unexpected events having a significant impact on the Company's results.

This project can make a tangible contribution to the achievement of Enel's corporate mission.

EU1

Installed capacity, broken down by primary energy source and by regulatory regime.

Installed capacity, broken down by energy source and regulatory regime, is as follows:

INSTALLED CAPACITY

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
Net efficient thermal power:	(MW)	55,826	47,629	40,564	8,197	17.2	Enel
Coal	(MW)	17,400	15,054	11,858	2,346	15.6	Enel
CCGT	(MW)	11,977	9,959	10,743	2,018	20.3	Enel
Oil/gas	(MW)	26,449	22,616	17,963	3,833	17.0	Enel
Net efficient nuclear capacity	(MW)	5,284	4,466	4,492	818	18.3	Enel
Net efficient renewable capacity	(MW)	34,216	30,415	30,468	3,801	12.5	Enel
Hydro	(MW)	31,018	27,186	27,891	3,832	14.1	Enel
Wind	(MW)	2,321	2,446	1,807	-125	-5.1	Enel
Geothermal	(MW)	742	678	678	64	9.4	Enel
Other (co-generation, biomass, etc.)	(MW)	135	105	92	30	28.8	Enel
Total net efficient capacity	(MW)	95,326	82,510	75,524	12,816	15.5	Enel
Italy	(MW)	40,420	40,323	40,396	97	0.2	Enel
Iberia	(MW)	22,120	16,009	17,576	6,111	38.2	Enel
France	(MW)	68	12	-	56	466.7	Enel
Greece	(MW)	133	91	80	42	46.2	Enel
Bulgaria	(MW)	796	602	581	194	32.2	Enel
Slovakia	(MW)	5,345	5,705	5,633	-360	-6.3	Enel
Russia	(MW)	8,198	8,183	-	15	0.2	Enel
Other Europe	(MW)	1,210	96	11	1,114	1,160.4	Enel
North America	(MW)	788	749	472	39	5.2	Enel
Latin America	(MW)	16,248	10,740	10,775	5,508	51.3	Enel
Total net efficient power	(MW)	95,326	82,510	75,524	12,816	15.5	Enel

EU2

Net energy output broken down by primary energy source and by regulatory regime.

The net energy produced, broken down by primary source and regulatory regime, is described in the following table.

In 2009, the production of electricity from renewable sources amounted to about 30% of total net production. The percentage may vary according to the calculation method. The overall calculation can consider either electricity production alone or electricity production together with the heat produced by co-generation plants.

ELECTRICITY PRODUCTION

KPI	UM	%					Boundary
		2009	2008	2007	2009-2008	2009-2008	
Net thermoelectric production	(TWh)	149.3	146.3	91.2	3.0	2.0	Enel
Coal	(TWh)	73.9	67.9	45.3	6.0	8.8	Enel
CCGT	(TWh)	34.5	44.2	27.7	-9.6	-21.8	Enel
Oil/gas	(TWh)	40.9	34.2	18.2	6.6	19.4	Enel
Net nuclear production	(TWh)	31.9	32.9	18.2	-1.0	-3.1	Enel
Net renewable production	(TWh)	86.6	73.9	44.1	12.7	17.1	Enel
Hydro	(TWh)	76.1	64.3	37.0	11.8	18.4	Enel
Wind	(TWh)	4.8	4.0	1.6	0.8	20.2	Enel
Geothermal	(TWh)	5.2	5.2	5.3	-	-	Enel
Other (co-generation, biomass, etc.)	(TWh)	0.5	0.5	0.3	-	-	Enel
Total net production	(TWh)	267.8	253.2	153.5	14.6	5.8	Enel
Italy	(TWh)	84.0	96.3	94.2	-12.3	-12.7	Enel
Iberia	(TWh)	61.3	61.2	19.9	0.1	0.1	Enel
France	(TWh)	0.07	0.01	-	0.06	842.9	Enel
Greece	(TWh)	0.3	0.2	0.1	0.04	18.6	Enel
Bulgaria	(TWh)	3.7	3.7	3.5	-	-	Enel
Slovakia	(TWh)	19.9	22.5	21.5	-2.6	-11.7	Enel
Russia	(TWh)	39.1	22.5	-	16.6	73.9	Enel
Other Europe	(TWh)	1.3	0.6	0.01	0.7	105.3	Enel
North America	(TWh)	2.4	1.9	1.2	0.6	29.9	Enel
Latin America	(TWh)	55.7	44.2	13.2	11.5	26.1	Enel
Total net production	(TWh)	267.8	253.2	153.5	14.6	5.8	Enel

EUB

Number of residential, industrial, institutional, and commercial customer accounts.

The number of residential, industrial, and commercial customers is as follows.

ELECTRICITY MARKET ITALY

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
Free market							
- mass-market customers	(n.)	2,395,647	1,711,837	-	683,810	39.9	Italy
- business customers ⁽¹⁾	(n.)	48,621	28,717	-	19,904	69.3	Italy
- safeguard market customers	(n.)	92,363	73,104	-	19,259	26.3	Italy
Total free market ⁽²⁾	(n.)	2,536,631	1,813,658	-	722,973	39.9	Italy
Enhanced-protection markets	(n.)	27,186,504	28,419,119	-	-1,232,615	-4.3	Italy
Total customers Italy	(n.)	29,723,135	30,232,777	-	-509,642	-1.7	Italy

(1) Supplies to large and energy-guzzling customers (annual consumption more than 1 GWh)

(2) Includes dual-energy customers

ELECTRICITY MARKET IBERIA

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
Free market	(n.)	11,699,674	907,436	-	10,792,238	1,189.3	Iberia
Enhanced-protection markets ⁽¹⁾	(n.)	0	6,903,560	-	-6,903,560	-100.0	Iberia
Total customers Iberia	(n.)	11,699,674	7,810,996	-	3,888,678	49.8	Iberia

(1) On July 1, 2009, the TUR market went into effect. Therefore, regulated customers no longer exist: all of them are now served on the free market.

ELECTRICITY MARKET LATIN AMERICA

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
Free market	(n.)	6,483	4,232	-	2,251	53.2	Latin America
Enhanced-protection markets	(n.)	12,899,929	8,320,883	-	4,579,046	55.0	Latin America
Total customers Latin America	(n.)	12,906,412	8,325,115	-	4,581,297	55.0	Latin America

ELECTRICITY MARKET ROMANIA

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
Free market	(n.)	1,606	1,433	-	173	12.1	Romania
Enhanced-protection markets	(n.)	2,563,111	2,555,643	-	7,468	0.3	Romania
Total customers Romania	(n.)	2,564,717	2,557,076	-	7,641	0.3	Romania

ELECTRICITY MARKET RUSSIA

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
Free market	(n.)	4,664	4,663	-	1	-	Russia
Enhanced-protection markets	(n.)	100,338	100,307	-	31	0.03	Russia
Total customers Russia	(n.)	105,002	104,970	-	32	0.03	Russia

ELECTRICITY MARKET FRANCE

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
Free market	(n.)	26	15	-	11	73.3	France
Enhanced-protection markets	(n.)	-	-	-	-	-	France
Total customers France	(n.)	26	15	-	11	73.3	France

EU4

Length of overhead and underground transmission and distribution lines by regulatory regime.

The length of the distribution networks as of December 31, 2009 was as follows:

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
High-voltage lines at year end	(km)	57	18,939	18,930	-18,882	-99.7	Italy
- including in underground cables	(km)	0	498	583	-498	-100.0	Italy
Medium-voltage lines at year end	(km)	342,289	340,427	338,644	1,862	0.5	Italy
- including in underground cables	(km)	134,088	132,105	130,475	1,982	1.5	Italy
Low-voltage lines at year end	(km)	757,337	752,789	740,406	4,548	0.6	Italy
- including in underground cables	(km)	247,512	242,760	237,794	4,752	2.0	Italy
Total distribution lines	(km)	1,099,683	1,112,155	1,097,980	-12,472	-1.1	Italy
High-voltage lines at year end	(km)	6,023	5,090	4,114	933	18.3	Romania
- including in underground cables	(km)	223	215	-	8	3.7	Romania
Medium-voltage lines at year end	(km)	37,761	37,591	23,523	170	0.5	Romania
- including in underground cables	(km)	13,941	13,690	-	251	1.8	Romania
Low-voltage lines at year end	(km)	80,493	47,559	25,591	32,934	69.2	Romania ⁽¹⁾
- including in underground cables	(km)	24,269	19,444	-	4,825	24.8	Romania ⁽¹⁾
Total distribution lines	(km)	124,277	90,240	53,228	34,037	37.7	Romania ⁽¹⁾
High-voltage lines at year end	(km)	21,423	-	-	-	-	Iberia
- including in underground cables	(km)	1,076	-	-	-	-	Iberia
Medium-voltage lines at year end	(km)	117,381	-	-	-	-	Iberia
- including in underground cables	(km)	37,000	-	-	-	-	Iberia
Low-voltage lines at year end	(km)	174,588	-	-	-	-	Iberia
- including in underground cables	(km)	80,650	-	-	-	-	Iberia
Total distribution lines	(km)	313,392	-	-	-	-	Iberia
High-voltage lines at year end	(km)	11,275	-	-	-	-	- Lat. America
- including in underground cables	(km)	711	-	-	-	-	- Lat. America
Medium-voltage lines at year end	(km)	141,411	-	-	-	-	- Lat. America
- including in underground cables	(km)	9,470	-	-	-	-	- Lat. America
Low-voltage lines at year end	(km)	128,195	-	-	-	-	- Lat. America
- including in underground cables	(km)	19,250	-	-	-	-	- Lat. America
Total distribution lines	(km)	280,881	-	-	-	-	- Lat. America

(1) The 2009 value differs from the one shown in the 2009 Annual Report because it reflects the length of the lines up to the point of delivery.

The total percentage of all lines in underground cables is 33% with regard to low-voltage ones, 30% to medium-voltage ones, and 0.05% to high-voltage ones.



Allocations of CO₂ emissions allowances or equivalent, broken down by carbon trading framework.

With its decision 20/2008 of November 27, 2008, the Ministry of the Environment, Land, and the Sea defined the scheme for assigning CO₂ emissions for the period 2008 – 2012, establishing the total number of allocations – at both the industry and plant level – assigned by the Competent National Authority for the implementation of EU directives regarding emission trading (n. 2003/87/EC and n. 2004/101/EC). The assignment of CO₂ emission rights (European Unit Allowances - EUAs) established for the industry averages 201 million tons of CO₂ per year, in addition to about 17 million more tons of CO₂ reserved for new-entry plants.

In the period under consideration, in order to cover the requirement for emissions of CO₂, companies may also use, within the total limit of 19.3% for thermal plants:

- > "Emission-Reduction Units" (ERUs), which represent emissions avoided by the implementation of projects aimed at emission reduction in other countries with emission limits reduction
- > "Certified Emission Reduction" (CERs), i.e. emissions avoided by the implementation of high-energy-efficiency industrial projects or projects based on the use of renewable energy in less developed countries without emission limits

Shown below, expressed in millions of tons, are the allocations assigned by the National Allocation Plans (NAP) and the actual 2009 emissions certified, as per provisions of the law, by March 31, 2010.

EU countries of the Enel Group	NAP allocations for 2009 (millions of tons)	Actual 2009 emissions** (millions of tons)
Bulgaria	*	5.2
Ireland	1.4	0.6
Italy	38.1	37.1
Portugal	2.7	1.2
Slovakia	5.4	3.4
Spain	25.6	29.9

(*) The NAP has been approved by the Government, but not yet approved by the EU.

(**) As of March 31, 2009.

The Clean Development Mechanism (CDM) and Joint Implementation (JI) are two of the three flexible mechanisms provided for by the Kyoto Protocol. As far as the CDM is concerned, at the global level as of December 31, 2009 there were a total of 1,900 projects, which will make possible the avoidance of more than one and a half billion tons of CO₂ in less developed countries by the end of 2012. The Group's portfolio contains a total of 105 projects with direct participation. Taking into account also the contribution of the projects in which the Group is participating through the so-called carbon funds, the potential reduction of CO₂ emissions amounts to 200 million tons in the period 2005-2020, of which 85% regards already registered projects.

Most of these initiatives were developed bilaterally between Enel-Endesa and the host country, with 39 CDM projects being registered in 2009 alone. This makes Enel the company with the second-largest number of registered projects in the world.

Most of the projects currently in the corporate portfolio are in China, where the Company has 80 projects in the fields of electricity production from renewable sources (hydroelectric and wind), the abatement of industrial gas emissions, and the increase of energy efficiency in several large factories. There are other projects in India, Africa, and Latin America.

As far as the JI mechanism is concerned, the Group has in its portfolio 7 directly managed projects in Uzbekistan and Ukraine and 14 initiatives involving participation in funds in Russia, Moldavia, and Ukraine.

3. Report Parameters

The data and other information contained in the 2009 Sustainability Report regard Enel SpA and the companies consolidated in the year ended December 31, 2009. For details on the companies, see the chapter "Results by Division", pp. 107-137 of the 2009 Annual Report.

Specifically, the data regard the companies entirely consolidated in the Annual Report if they produce significant impacts with regard to the specific indicator reported.

Page 5 of this Report expressly specifies any boundary limitations stemming from the impossibility of collecting the data efficiently or according to satisfactory qualitative standards.

Otherwise, associated companies (which in the Annual Report are valued by the equity method) and the other entities on which Enel exercises a significant influence (including the joint ventures) are included in the calculation of the data, if they are available, in proportion to Enel's equity interest. Furthermore, if such companies produce significant impacts, they are reported in the disclosures on management approach.

Several differences with respect to the numbers and comments in the 2008 Sustainability Report are due to the changes in Enel's boundary during 2009, as reported in the paragraph "Significant Events in 2009" section on pp. 25 of the Annual Report.

The effects on the changes in the Group boundary on the economic data and the workforce are noted in the comment on revenue on page 37 of this Report and in the table showing the change in the number of employees on page 34. The Group is present in 23 countries on 4 continents. "Parent Company" refers to Enel SpA, while "Group" or "Enel" refers to all the companies controlled by Enel SpA considered as a whole.

With respect to the preceding reporting period, the following changes have taken place in the Italian and international boundaries:

- > **Endesa**: on June 25, 2009, acquisition by Enel – through its subsidiary Enel Energy Europe – of the 25.01% of Endesa held, directly and indirectly, by Acciona. Following this transaction, Enel holds a 92.06% equity interest in Endesa and has complete control of the Spanish company. Consequently, as from this date the method of consolidating Endesa in the Enel Group changed from proportional to full, accounting for minority interests amounting to 7.94% of its share capital.
- > **SeverEnergiya**: on September 23, 2009, sale of 51% of the share capital of SeverEnergiya, a Russian company until then entirely owned by Artic Russia, on which Enel and Eni exercise joint control of 40% and 60%, respectively.
- > **Endesa Ireland**: on January 9, 2009, acquisition of 100% of KJWB (now

Information and further details may be requested from:

Enel SpA
External Relations, CSR, and
Relations with Associations

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- Endesa Ireland), a generating company in Ireland, which – since it is controlled by Endesa – was consolidated proportionally until June 25, 2009 and has subsequently been consolidated fully
- > **Empresa de Energía de Bogotá:** on October 5, 2009, sale by Endesa for 247 million dollars of its equity stake in Empresa de Energía de Bogotá, a Colombian company doing business in electricity transportation in the Bogota area
 - > **Wind Parks:** between April 22 and June 23, 2009, acquisition of 100% of the share capital of three Greek companies (International Wind Parks of Rhodes, Glafkos Hydroelectric Station, and International Wind Parks of Achaia), which generate electricity from renewable sources
 - > **Aioliko Voskero:** on December 30, 2009, acquisition of 100% of Aioliko Voskero, a company in Greece that generates electricity from renewable sources
 - > **Enel Rete Gas:** on September 30, 2009, sale by Enel Distribuzione of 80% of the share capital of Enel Rete Gas. Following this transaction, Enel Distribuzione's equity interest in Enel Rete Gas decreased from 99.88% to 19.8%, with the consequent loss of control. Taking into account the current governance instruments, which allow Enel considerable influence on the management of the company, as from that date Enel Rete Gas has been consolidated by the equity method, rather than fully.
 - > **Enel Linee Alta Tensione:** on April 1, 2009, sale of the entire share capital of Enel Linee Alta Tensione (ELAT), a company to which Enel Distribuzione contributed, effective as from January 1, 2009, a division consisting of high-voltage lines and the related legal relations
 - > **Avisio Energia:** on December 10, 2009, sale of the 100% of Avisio Energia held by Hydro Dolomiti Enel, a company selling and transporting natural gas in Italy, after which it was deconsolidated.

Since 2003, every year Enel has published, in concurrence with its Annual General Meeting, a Sustainability Report, which is submitted to the Internal Control Committee and the Board of Directors for approval. The 2008 Report was published in April 2009.

In accordance with the provisions of the Code of Ethics, the Audit Department assists the Internal Control Committee by checking the completeness and reliability of the Report. Furthermore, KPMG carries out a limited external audit of the document.

The Enel Group's Sustainability Report for the year ended December 31, 2009 was prepared in conformity with the [Sustainability Reporting Guidelines & Electric Utility Sector Supplement \(EUSS\)](#) established in 2006 by the Global Reporting Initiative (GRI), as well as with the AA1000 Accountability Principles Standards issued by AccountAbility in 2008, following specifically the requirements in terms of inclusiveness, materiality, and responsiveness to the legitimate expectations of stakeholders. For a description of the Report's conformity with the AA1000, see the table on pp. 18, which sets out the Sustainability Plan broken down by stakeholder.

As far as "completeness" is concerned, as pointed out in chapter 5 ("Management Approach and Performance Indicators"), the Group manages a consolidated system of sustainability performance indicators.

The GRI Boundary Protocol and the Indicator Protocol have been followed whenever they are applicable. Furthermore, Enel has integrated the EUSS indicators throughout the Report.

The following Key Performance Indicators (KPI) published in the 2007 Sustainability Report have been omitted: EC5, EC9, LA11, HR3, HR8, HR9, PR2, PR4, and PR7. In effect, these are additional GRI indicators that do not count in determining the A+ level of application and are not significant with respect to Enel's specific case. The data were calculated precisely according to the entries in general accounting and Enel's other information systems. Data determined by estimates and the related calculation method are expressly indicated.

The comments on the indicators identify and explain any changes in the comparative data with respect to those published in the 2008 Sustainability Report.

The Sustainability Report is drawn up on the basis of the Enel Group's objectives with respect to its sustainability performance and its reporting of the results achieved. In particular, the process of writing the document included the identification of the Company's stakeholders and the significant aspects to report, as well as the implementation and maintenance of the appropriate management and internal control processes regarding the data and other information presented in the Sustainability Report.

Enel believes that it has achieved the A+ level of application.

4. Governance, Commitments, and Stakeholder Engagement

Governance

Enel's Corporate Governance system reflects the highest standards of transparency and fairness in company management.

This system of corporate governance not only conforms to the provisions of the law and the CONSOB regulations, but is also fully aligned with both international best practices and the recommendations of the Self-regulation Code of listed companies, which it adopted in 2000 and the current version of which is available online at http://www.borsaitaliana.it/borsaitaliana/ufficio-stampa/comunicati-stampa/2006/codiceautodisciplina_pdf.htm.

In addition to constituting an essential instrument for ensuring the effective management and control of the Company's activities, Enel's corporate governance system is meant to ensure:

- > the creation of value for shareholders;
- > service quality for customers;
- > the control of corporate risk;
- > transparency for the market;
- > the reconciliation of the interests of all shareholders, with particular regard to the small ones;
- > awareness of the social importance of the activities in which Enel is engaged and, in carrying them out, the consequent necessity of appropriately considering all the interests involved.

The governance bodies in charge of pursuing these objectives are mainly Enel SpA's shareholders' meetings, Board of Directors, and the latter's proactive and advisory committees (the Internal Control Committee and the Remuneration Committee), Chairman, Chief Executive Officer, and Board of Statutory Auditors. In particular, the Company's [Board of Directors](#) plays an essential role in the corporate organization and is responsible for the strategic and organizational guidelines, as well as ensuring that there are the controls necessary for monitoring the performance of the Parent Company and the Group.

According to current law, all the Directors must possess the requisites of honorableness provided for representatives of financial intermediaries, as well as for the statutory auditors of listed companies. Furthermore, the Board of Directors consists of both executive and nonexecutive Directors, and among the latter there are those possessing the requisites of independence provided for by the Self-regulation Code of listed companies, as well as the requisites of independence provided for by the law (specifically by the Unified Finance Law) for the statutory auditors of listed companies.

In-depth information regarding Enel's structure of corporate governance (shareholders' meetings, the composition, role, and functions of the Company's Board of Directors and its committees, the internal control system, employee shareholding, relations with institutional investors and shareholders in general, etc.) are contained in the "Report on corporate governance and the ownership structure – section II" on pp. 290 of the 2009 Annual Report, which is available online at http://www.enel.com/en-GB/investor/financial_reports/annual/

With regard to the position of the [Chairman of the Board of Directors](#), it should be noted he has an executive role in consideration of the specific function that the current structure of powers assigns him concerning the development of corporate strategies, but he does not have any individual managerial powers.

The election of the entire Board of Directors takes place according to the mechanism of a "slate vote", aimed at ensuring the presence on the Board of members designated by minority shareholders. Each slate must include at least two candidates possessing the requisites of independence provided for by the law, and exhaustive information on the personal and professional characteristics of the candidates – accompanied by a statement of whether they qualify as independent pursuant to the law and/or the Self-regulation Code of listed companies – must be filed at the Company's registered office together with the slates, as well as promptly published on the websites of the Company and Borsa Italiana.

In order to ensure the efficient performance of its duties, in January 2000 the Board of Directors set up a [Compensation Committee](#) and an [Internal Control Committee](#), with advisory and proactive duties and entrusted with dealing with sensitive issues involving potential conflicts of interest. These committees consist of at least three non-executive Directors, a majority of whom must be independent.

The Directors' compensation is established at a level that is sufficient to attract, retain, and motivate Directors endowed with the professional qualities required for successfully managing the Company. It is up to the Compensation Committee to ensure that a significant part of the compensation of executive Directors and executives with strategic responsibilities is linked to the financial results achieved by the Company and the Group, as well as to the achievement of specific objectives pre-established by the Board of Directors or, in the case of the aforesaid executives, the Chief Executive Officer, in order to align the interests of these persons with the pursuit of the main objective of value creation for shareholders in a medium-to-long-term perspective.

With regard to the variable component of the compensation of the top management – in particular, the positions of the Chairman and the Chief Executive Officer/General Manager, who are assigned the same objectives – it should be noted that the Group objectives established for 2009, each of which has a specific weight, regarded the achievement of the consolidated EBITDA set by the budget, consolidated financial debt reduction, the level of satisfaction of the customers who accepted the offers of the subsidiary Enel Energia SpA, the margin of the generation area, workplace safety, and the internationalization of the Group, with particular regard to the integration of the management processes of Enel and Endesa.

Furthermore, in his capacity as General Manager, the [Chief Executive Officer/General Manager](#) is one of the participants in the long-term incentive plans (stock options and, more recently, restricted share units) addressed to Company and Group executives.

In line with the most advanced practices of corporate governance abroad and the Self-regulatory Code and availing itself of the assistance of a firm specialized in the field, during the last quarter of 2009, the Board of Directors began – and completed in February 2010 – a board review: an assessment of the size, composition, and functioning of the Board itself and its committees. The Board of Directors had undertaken similar reviews in previous years.

During 2009, the Board discussed:

- > various issues regarding corporate governance in 9 meetings;
- > the updating of the Compliance Program pursuant to Legislative Decree n. 231 of June 8, 2001 in 1 meeting;
- > issues regarding CSR in 3 meetings (with particular regard to the approval of the 2008 Sustainability Report, the revision of the Code of Ethics, and an extraordinary donation to Enel Cuore Onlus to fund the projects for 2009).

For more detailed information on the Board of Directors and its committees, the Board of Statutory Auditors, and shareholders' meetings, see the corresponding sections of the "Report on corporate governance and the ownership structure" attached to the 2009 Annual Report on p. 290.

The numerical data regarding corporate governance are shown at the end of this chapter, on page 73 .

For more detailed information on the internal control system, and in particular on the risk management system and the internal control system on financial information, see the corresponding sections of the "Report on corporate governance and the ownership structure" attached to the 2009 Annual Report.

The Internal Control System and the Internal Control Committee

The Company has a special internal control system, whose purpose is to monitor the appropriateness of the different corporate processes in terms of effectiveness, efficiency, and cost-effectiveness and to ensure the reliability and fairness of the account books and the safeguard of corporate assets, as well as compliance with internal and external regulations and corporate directives and guidelines aimed at ensuring sound and efficient management.

The responsibility for adopting an appropriate internal control system consistent with both domestic and international benchmarks and best practices is entrusted to the Board of Directors, which – availing itself of the Internal Control Committee – establishes the guidelines of this system, so that the main risks regarding the Company and its subsidiaries are correctly identified, as well as appropriately measured, managed, and monitored, and thus assessing the compatibility of such with the sound and proper management of the Company. It should be noted in this regard that in December 2006, the Board of Directors acknowledged the identification of the main risks regarding the Group, as well as the proper criteria of measuring, managing, and monitoring such risks, and assessed the compatibility of the aforesaid risks with sound and proper corporate management. In February 2008, the Board of Directors examined an updated Group risk assessment prepared by the Company's Audit Department. [The Internal Control Committee has the task of carrying out preliminary investigations to assist the Board of Directors in the latter's assessments and decisions regarding the Internal Control System, the approval of financial statements and the half-year financial report, and the relations between the Company and the external auditors.](#)

During 2009, the Internal Control Committee focused first of all on the assessment of the work plan prepared by the head of internal control, as well as the results of the audits performed during the previous year and the content of the letter of suggestions drawn up by the external auditors regarding the year in question.

During the period concerned, the Committee also approved a special procedure aimed at regulating assignments to the auditing firms that work for the Group – expressing in this regard its approval concerning the entrusting of certain specific additional assignments to the Group's main external auditors – and examined the effects of recent legislation and the new international accounting standards on the Group's consolidated financial statements.

The Committee also examined its supervision of the 2008 Sustainability Report, which was subsequently approved by the Board of Directors and then presented to the Annual General Meeting, and the revised version of the Code of Ethics, monitored the observance – and also revised – the Compliance Program, examined (after receiving extensive information about the second consultation document published by the Consob and approving the observations drawn up and formalized by the relevant corporate departments) several transactions with related parties, and made a positive assessment of the appropriateness, efficiency, and actual functioning of the internal control system during the previous year. Finally, the Committee monitored the Group's compliance with the regulations on the accounting transparency and the appropriateness of the organizational structure and internal control systems of the subsidiaries incorporated and regulated under the laws of countries that do not belong to the European Union. In February 2010, the Board of Directors expressly entrusted the Internal Control Committee with the additional task of assessing the appropriateness of the diligence dedicated by the Group to the issues of Corporate Social Responsibility, as well as the completeness and transparency of the information provided in this regard through the Sustainability Report.

Code of Ethics

Awareness of the social and environmental impacts of the Group's activities, together with consideration of the importance of a cooperative approach with stakeholders for the Group's reputation – in both internal and external relations – led to the drawing up of the Group's Code of Ethics, which was approved by the Parent Company's Board of Directors in 2002 and was most recently revised in September 2009. In 2010, the Code will also be adopted by Endesa. [The Code of Ethics applies to Enel SpA and the companies controlled by it, both in Italy and abroad, and is consequently binding for the behavior of all the people who work therein.](#)

This Code expresses the Group's ethical commitments and responsibilities in the conduct of its business, regulating and harmonizing corporate behavior according to standards based on the utmost transparency and fairness towards all stakeholders. For a more detailed description of the Code of Ethics, see the "Disclosure on Management Approach" in the performance indicators on Human Rights on p. 239 of this Report.

Compliance Program pursuant to Legislative Decree n. 231 of June 8, 2001

In July 2002, the Board of Directors approved a Compliance Program in accordance with the requirements of legislative decree n. 231 of June 8, 2001, which introduced into the Italian legal system a regime of administrative – but in fact criminal – liability with respect to companies for several kinds of crime committed by their directors, executives, or employees in the interest and for the benefit of said companies.

This program – which over the years has been revised in order to take into account the applicative experience acquired, court decisions, and new regulations – is consistent with the guidelines on the subject established by industry associations and best practice in the United States, and constitutes another step towards strictness, transparency, and a sense of responsibility in both internal and external relations. At the same time, it provides shareholders with appropriate assurance of efficient and fair management.

The program in question – which was conceived as an instrument to be adopted by all the Italian companies of the Group – consists of a “general part” (which describes, among other things, the content of legislative decree n. 231/2001, the objectives of the program and how it works, the duties of the internal control body responsible for supervising the functioning and observance of the program and for seeing that it is kept up to date, the flows of information, and the related penalty regime) and separate “special parts” concerning the different kinds of crimes provided for by legislative decree n. 231/2001, which the program aims to prevent.

The task of supervising the functioning and observance of the program and its updating is entrusted at Enel SpA to a collegial control body, whose members have specific professional expertise regarding the application of the program and are not directly involved in operating activities.

In 2009, the control body supervised the functioning and observance of the program as part of the usual training initiatives necessary to ensure that employees are constantly updated on the model – promoted a special training event dedicated to the prevention of occupational injuries.

“Zero Tolerance of Corruption” Plan

In June 2006, the Board of Directors approved the adoption of the “Zero Tolerance of Corruption” (ZTC) Plan, in order to give substance to Enel’s membership in the Global Compact, an action program sponsored by the United Nations in 2000, and the Partnership Against Corruption Initiative (PACI), which was sponsored by the World Economic Forum of Davos in 2005.

The ZTC Plan neither replaces nor overlaps with the Code of Ethics and the Compliance Program, but represents a more radical step regarding the subject of corruption and adopts a series of recommendations for implementing the principles established by Transparency International.

See the report on the ZTC Plan in the section on corruption in the SO performance indicators.

Stakeholder engagement

Enel considers its stakeholders to be those categories of individuals, groups, or institutions whose contribution is required for the Group to carry out its mission or, in any case, that have an interest at stake in its pursuit. In particular, they are the people who make investments connected with Enel’s business: first of all, its shareholders, and then its employees, customers, suppliers, and business partners. Stakeholders in a broader sense are all the individuals and groups – as well as the organizations and institutions that represent them – whose interests are influenced by the direct or indirect effects of Enel’s activities, including the local national communities in which Enel has operations, environmental associations, future generations, etc.

Enel’s core business determines the identification of its stakeholders and their interests. The kind of initiatives Enel promotes with regard to them is the result of proactive attention to their requests by the corporate units in charge of handling relations with specific stakeholders, in order to engage the latter and overcome prejudices and misinformation.

For example, the Investor Relations Unit manages, according to dedicated procedures, relations with both analysts and institutional investors through official meetings, road shows, and the website, and – together with the CSR and Relations with Associations Unit – handles relations with ethical investors.

The Personnel and Organization Department takes note of employee requests through ad hoc meetings and corporate-climate analysis, while the Industrial Relations Unit keeps up constant relations with the labor unions.

"Citizen" Enel's participation and engagement are promoted by the activities of the Internal Communication Unit of the External Relations Department, with the objective of facilitating integration through innovative methods and instruments. In 2009, for example, activities were begun to implement the new global intranet. As far as customers are concerned, Enel's Sales Division systematically surveys their satisfaction and requests through the traditional customer-relationship-management instruments and the monthly results of the Customer-Satisfaction survey, which – supplemented by the analysis of complaints – allow Enel to monitor consumers' perception of the service. Furthermore, Enel was also the first European utility to develop an online instrument for Alternative Dispute Resolution reserved for electricity and gas customers. The Procurement Department manages the Enel's relations with its suppliers, where discussion is concentrated mainly in the planning of and during the training meetings organized by Enel, especially on the subject of safety. Relations with institutions are managed at the local, national, and international levels by the Institutional Affairs, International Institutional Affairs, and External Local Relations and Confindustria Units in accordance with the guidelines established by the External Relations Department. The growing influence of associations in public life is reflected in the CSR and Relations with Associations Unit, which manages relations with associations of consumers, environmentalists, small and medium-sized enterprises, and local governments, establishing work groups and developing shared projects aimed at promoting information, communication, and awareness. Discussions with local communities take place on different levels. In particular, the Large Infrastructure Projects Unit discusses with the communities affected by industrial construction work. More generally, the External Relations Department, and particularly the Institutional Communication and Stakeholders Unit, discusses constantly with local communities and helps them grow by supporting educational, cultural, social, and sports activities. Enel feels the responsibility of leaving a better world to future generations. For this reason, the Research and Innovation and Environment Units are engaged in the development of innovative technologies for making energy environmentally sustainable.

On the basis of our Business Plan and the significant elements that have emerged from listening to and discussing with our stakeholders, we have reformulated our Sustainability Plan from a stakeholder-oriented point of view, establishing specific objectives and responsiveness, which will be monitored periodically.

Commitment in External Initiatives

The following are the most important international programs in which Enel participates.

Global Compact

Enel has belonged to the Global Compact since 2004. This action program is promoted by the United Nations for the purpose of involving the business world in a new kind of cooperation by subscribing to [ten universal principles](#)

regarding human rights, the safeguard of labor, and the protection of the environment. The companies that participate in the program are the ones that most distinguish themselves by their sense of social responsibility and aspire global growth that takes into account the interests and concerns of their stakeholders. Through the Sustainability Report, Enel provides an account of how it carries out its activities and the results obtaining regarding the economic, environmental, and social responsibilities it assumes with regard to its different stakeholders.

The signatories of the Global Compact are required to send the relevant office an annual communication regarding the concrete results of the commitment made when they signed the agreement.

The Communication on Progress concerning the activities carried out and the results obtained by Enel with regard to the ten principles is available in the related section of the Global Compact's website www.unglobalcompact.org.

e8

Founded following the Rio de Janeiro Summit in 1992, the e8 is a non-profit organization consisting of the ten most important companies in the global energy industry.

Sharing the technical expertise and the successful experiences of the electricity industry in different countries is the way in which the e8 intends to [contribute to sustainable development](#) and work to ensure the safety and continuity of the electricity supply while respecting the environment. Every member of the association, including Enel, thus considers the environmental question a priority in its activity. To this end, the e8 is a meeting place for sharing knowledge, experiences, and good practices in the field of technological innovation applied to the electricity industry. During the two-year period 2008-2009, Piero Gnudi, Enel's Chairman, was the President of the e8.

The e8 has so far completed almost 50 projects involving plant construction, technical assistance, and training in the fields of energy efficiency, rural electrification, renewable energy, the strengthening of institutional capabilities, and project management in more than 30 countries. It has also granted 30 scholarships for students in less developed countries to acquire master's degrees and Ph.Ds. Currently, the e8 is working in particular on renewable-energy projects in countries such as the Philippines, Nicaragua, and Tunisia, as well as a series of seminars to facilitate the financing of rural electrification.

Observatoire Méditerranéen de l'Energie (OME)

From its foundation as part of the Barcelona process in 1995, the main purpose of the OME has been to promote [cooperation among the major energy companies operating in the Mediterranean area](#). The association is both a research and information center on energy in the region and a think tank and a permanent forum among its members. From 2005 to March 2010, the presidency of the OME was entrusted to Enel's Chairman, Piero Gnudi.

Major Economies Forum (MEF)

As part of the G8 in L'Aquila in July 2009, the MEF met and decided to begin a [study of the key technologies for CO₂ abatement](#). Seven work groups were set up, each of them with one or more countries as the leader. Italy obtained the co-leadership with Brazil of the bio-fuels group and with South Korea of the smart grids group. Enel's experience, as the only utility in the world

that can boast a network with over 30 million smart meters, was decisive in the assignment of the guiding role on smart grids to Italy.

World Energy Council (WEC)

Enel is a member of the WEC, the most important organization in the energy field, whose base is in London. The WEC is concerned with all energy sources: coal, oil, gas, nuclear, hydro, and renewable ones.

Both countries and enterprises are members, with more than 100 countries involved. The WEC's role as a consultant is recognized by the United Nations. Its mission is to [promote the peaceful and sustainable use of energy resources](#) for the benefit of all the peoples in the world, facilitating research and the exchange of knowledge regarding resources, technology, consumption styles, and environmental aspects of the production and use of energy sources.

Global Carbon Capture and Storage Institute (GCCSI)

As part of an Italo-Australian agreement to cooperate on the development of technologies for capturing and storing carbon dioxide (CO₂), which was signed in Siracusa on April 22, 2009, Enel signed a Memorandum of Understanding providing for it to become a founding member of the Global Carbon Capture and Storage Institute (GCCSI). The GCCSI is an organization created by the Australian government for the purpose of [mobilizing public and private resources to give a boost to carbon-capture-and-storage \(CCS\)](#) technology from the commercial and legal point of view, as well as with regard to its acceptance by public opinion. The immediate goal is to accelerate the creation of more than 20 pilot projects.

International Energy Agency (IEA) World Energy Outlook

Founded in 1974, the IEA is an agency of the OECD (Organization for Economic Cooperation and Development). The main objective of the Agency – with which Enel has numerous different cooperative initiatives, including participation in the Energy Business Council, the forum created by the IEA for bringing together the energy ministers of the member countries and the top management of large energy companies – is to [facilitate the coordination of the energy policies of the 28 member countries](#) and ensure the stability of the energy supply and sustainable economic development. The authoritativeness of the institution makes its publications “objective” reference documents for all stakeholders worldwide. The agency is based in Paris and its executive director is Nobuo Tanaka.

United Nations Framework Convention on Climate Change (UNFCCC) negotiation and the G8

Enel's G8 Position Paper summarized its position and strategies on issues regarding energy and [environmental policies to contain climate change](#), with a view to providing Italy's chairmanship of the G8 with a contribution towards the definition of policies, both within the G8 process, which culminated in the summit of the heads of state and governments in July 2009, and at the Copenhagen Conference on the climate in December 2009. Starting with the experience that Enel has acquired in the field, the Position Paper proposes a vision and some wishes, in particular on the flexible mechanisms (CDM) provided for by the Kyoto Treaty, the technologies that will allow us to have “carbon-free” generation of electricity (CO₂ capture and storage, renewable and nuclear energy), and the key issue of energy efficiency.

3C - Combat Climate Change

Enel was one of the first countries to join the 3C - Combat Climate Change initiative.

The 3C initiative aims to form an international opinion group, consisting of leading companies, which can show how climate-related issues can be integrated in the market and global trade, with precise operating guidelines by 2013.

All the member companies expressly declare that they agree on several priorities, including: beginning to create a low-emission economy, identifying common and shared objectives on the limits of climate change, finding global solutions, creating a global market for greenhouse-gas emissions, setting a price for emissions, establishing a balance between immediate and long-term actions, reaching a fair and sustainable agreement on the global breakdown of emissions, and showing the sustainable way to the less developed countries.

In addition, Enel is present in the main industry associations.

- > Aspen Institute Italia, an association whose objective is to internationalize Italy's entrepreneurial, political, and cultural leadership and to promote open discussion among different cultures.
- > CEPS (The Centre for European Policy Studies), the most important research center dedicated to EU policies in every industry. Enel participates as a member and occasionally sponsors studies or meetings regarding issues of the electricity industry, innovation in the industry, and climate change.
- > EEF (European Energy Forum), an association promoting discussion between the European Parliament and the energy industry. Enel participates in the association's activities, which are addressed to the members of the Parliament during its plenary sessions. Enel pays annual dues and occasionally sponsors a dinner at which studies or research it has carried out are presented.
- > EURELECTRIC (Union of the Electricity Industry), an association of electricity companies. In addition to providing the vice-president in the person of CEO Fulvio Conti, Enel is present in 57 committees, work groups, and task forces. Enel chairs one committee and two work groups, as well as participating extensively in the association's project's and initiatives. Enel does not contribute financially beyond its payment of the dues and considers membership to have high strategic value.
- > EU CORPORATE LEADERS GROUP ON CLIMATE CHANGE, an association of European companies, whose purpose is to combat climate change. Enel has been a member since 2008. The association promotes common undertakings regarding climate change through the presence of the top management of the member companies. Participation is strategic because of the level of coordination it provides and the influence that the presidency of the group, entrusted to his Royal Highness, the Prince of Wales, exercises on the decisions of the EU. The study and working material collectively produced under the aegis of the University of Cambridge Program for Industry ensures that Enel is continually kept abreast on the most advanced conceptions and techniques of sustainability. Participation is thus strategic and Enel participates actively in the proceedings.
- > EPIA (European Photovoltaic Industry Association), a European organization based in Brussels, which represents the interests of 95% of the European photovoltaic industry to the main EU institutions (Commission, Parliament, Council). The association is extremely active, both in lobbying at the EU level and in fund raising (FP7). With its more than 200 members, the association is

expected to become one of the most important in the renewable field in the short to medium term.

- > EWEA (European Wind Energy Association), a European organization based in Brussels, which represents the interests of 90% of the world wind industry to the main EU institutions (Commission, Parliament, Council). With its more than 600 members from over 50 countries, the association is the most influential entity in Brussels in the field of renewable energy.
- > FORATOM (European Atomic Forum), an association of the European nuclear industry. Through its subsidiary Slovenské elektrárne, Enel participates in the proceedings of the forum as an active member. Given its return to the production of electricity from nuclear energy, Enel considers this participation strategic.
- > TECHNOLOGICAL PLATFORMS, entities created at the initiative of the European Commission. Such Platforms consist of Industry, Research Centers, and Universities, as well as representatives of the 27 member states. The Platforms vary in terms of their structural and operating characteristics. Generally speaking, all of them are places where different stakeholders meet according to the technological area covered by the Platform (e.g., photovoltaic, nuclear, or wind energy). The purpose of the Platforms is define the gaps connected with the different technologies and consequently devise a shared position/strategy for developing/improving such technology. Enel participates in the following Platforms: photovoltaic, nuclear, smart grids, wind, zero emissions (mainly on carbon capture and storage, CCS), and hydrogen.
- > THE KANGAROO GROUP, an informal forum for discussion between members of the European Parliament and partners and stakeholders in society at large. The aim is to increase reciprocal understanding of issues – not exclusively technical or industrial – regarding ideas for future initiatives of the European Union.
- > SEAP (Society of European Affairs Professional), an association that includes representatives of large European companies to the Institutions of the EU, the European Commission and Parliament. The purpose of the organization is to pursue ethical and moral principles in providing information to these institutions. Enel pays annual dues and is a member of the committee in contact with the European Commission, which follows the drafting of the directive on transparency in the work of the representatives of companies and interest groups.
- > ENEF (European Nuclear Energy Forum), a platform for discussion on the opportunities and risks of nuclear energy, which was founded in 2007. The ENEF comprises all the interest groups in the nuclear industry: the governments of the 27 member states, the EU institutions, including the European Parliament, the nuclear industry, consumers, and the civil society. Enel is involved in widening the discussion between the nuclear industry and its stakeholders and is part of three work groups, which address the issues of transparency in communication, the risks of the nuclear industry, and the management of nuclear waste.
- > NEA (Nuclear Energy Agency), a specialized agency of the OECD, the intergovernmental organization of the industrialized countries, which is based in Paris. The NEA's mission is to assist the member states to promote, through international cooperation, the safe and environmentally compatible use of nuclear energy for peaceful purposes. The NEA acts as a forum for sharing information and experiences. Enel is on the steering committee.

With regard to the [associations and networks more strictly engaged in promoting corporate sustainability](#), since 2008 Enel has been the only industrial company in Southern Europe on the board of CSR Europe, and in Italy it is a member of Sodalitas, the CSR Manager Network Italia, and ANIMA. In the GRI, Enel is an organizational stakeholder, has participated in the EUSS Working Group, and is a member of the Working Group for Human Rights.

5. Management Approach and Performance Indicators

The CSR and Relations with Associations Unit of Enel SpA's External Relations Department collaborates with the Scenario and Market Analysis Unit of the Accounting, Finance, and Control Department in assisting the Company's top management to [establish the sustainability priorities and objectives](#), which constitute the guidelines that the departments of the Parent Company, Divisions, and other companies of the Enel Group must follow in formulating specific short- and medium-term action plans.

To this end, the process dedicated to CSR has been included in both the [Integration Handbook](#) (issued by the Parent Company and dedicated to the description of the main processes in terms of phases, roles, and responsibilities subject to coordination between Enel and the Group companies abroad) and the [Coordination Handbook](#), whose similar content applies only to Endesa. Furthermore, a single procedure will soon be issued for the entire Group, which specifies activities, roles, responsibilities, and timing in detail.

The planning and monitoring of the objectives takes place through the collection and processing of the accounting and other data regarding specific Key Performance Indicators (KPI). The sustainability KPIs require the involvement of both the Parent Company on trans-Group issues and the Divisions of the Group on the specific issues of their fields of activity.

Specifically, in the different departments and professional families there are people in charge of collecting, checking, and processing the KPI concerned. The consolidation of the results takes place under the responsibility of the Scenario and Market Analysis Unit, which is entrusted with the coordination of the entire process of collecting the quantitative data. The CSR and Relations with Associations Unit is responsible for the qualitative parts and the comments on the results, as well as the coordination and drafting of the Sustainability Report, which is submitted to the assessment, examination, and approval of Enel SpA's Internal Control Committee.

During 2009, the Internal Control Committee consisted of Directors Gianfranco Tosi (acting as coordinator), Lorenzo Codogno (who, as the Board of Directors acknowledged, possesses the requisite of appropriate experience in accounting and finance), Renzo Costi, and Alessandro Luciano.

All the Directors in question qualify as non-executive and the Board of Directors has acknowledged that Gianfranco Tosi, Renzo Costi, and Alessandro Luciano possess the requisites of independence provided for both by the law (specifically, the Unified Finance Law) and the Self-Regulation Code of listed companies.

[The Sustainability Report is assessed by the Internal Control Committee, subsequently approved by Enel SpA's Board of Directors, and then presented to the Shareholders at the Annual General Meeting.](#)

1. Objectives

In 2008, Enel started a project called "Intangibility", to establish a conceptual framework for the study of the relations between the sustainability strategies and the intangible capital of the Enel Group. The project is conducted by the Department of Law and Economics of Productive Activities of the "La Sapienza" University of Rome and the Economics and Management Department of the "Guido Carli" Luiss University, in cooperation with KPMG ⁽¹⁾.

As part of this conceptual framework, the work group analyzed the interdependence of specific projects and activities in implementing Enel's Sustainability Plan with the different components into which intangible capital can be broken down (human capital, structural capital, and relational capital).

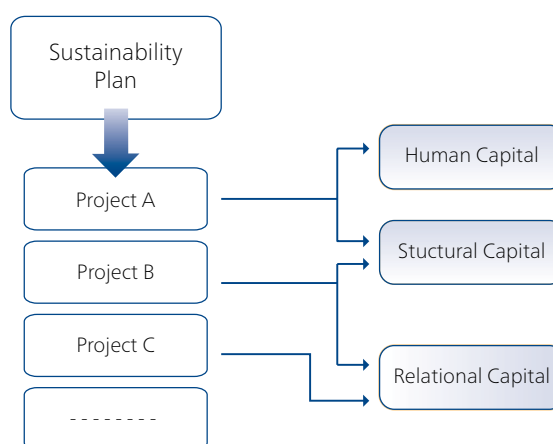
One of the main objectives of the study is the identification of a set of quantitative indicators to measure the level of interdependence between the projects/activities, the different components of intangible capital, and the effectiveness of such projects/activities in terms of potential impact on the value of Enel's intangible capital.

2. Methodological approach

The work group followed an inductive kind of approach in its study of the interdependence between actions deriving from the Sustainability Plan and intangible capital.

In practice, first of all the functional areas to which the Sustainability Plan entrusts the achievement of certain objectives were identified. Then several projects/activities consistent with the objectives included in the Sustainability Plan were examined with the help of the Enel units concerned. Each project/activity was analyzed by the work group in order to identify and describe any interdependence with the different components of intangible capital.

The instances of interdependence were studied from the qualitative point of view and, if possible, measured with appropriate quantitative indicators.



3. An example: the impact of CSR actions on relational capital

The projects and actions included in the CSR policy can generate significant effects on Enel's relational capital and in particular on each of the three components into which it breaks down: i) network of relations, ii) trust, and iii) ability to manage relations. By their nature, the CSR relations that involve external stakeholders entail the development of intense interactions, which are repeated over time and are based on reciprocal cooperation. Consequently, they strengthen the system of relations of the company that creates them.

Cooperation in carrying out CSR actions highlights the commitment of all the actors involved in pursuing goals of general interest. In this sense, it develops reciprocal trust between the people involved, even though they may have different individual objectives, and regardless of the existence of previous significant relations.

Planning, negotiating, and carrying out CSR actions requires – and, in any case, develops in the people directly involved – extensive and sophisticated relational capabilities. Through a learning-by-doing process, CSR practices therefore facilitate the acquisition of specific abilities to manage relations with external individuals that can become significant assets in many areas of the corporate system.

It is essential to point out that the size of the effects of the CSR initiatives on relational capital is directly and significantly correlated with the length of the time horizon in which such initiatives are constantly carried out. While immediate results are usually modest, medium-term ones tend to increase in size.

(1) KPMG is participating in the work group's activity because it will have to check the results published in the 2009 Sustainability Report.

3.1 The case of the “Alternative Dispute Resolution” project

The project established the conditions so that all residential customers can extremely easily use “Alternative Dispute Resolution” to resolve all disputes with Enel about questions regarding the supply of electricity and gas⁽²⁾.

3.1.1 Indicators of the effect on relational capital

a) System of relations – effects that are qualitative or not currently measurable quantitatively

Benefits for Enel’s direct interlocutors in implementing the project:

i) achievement of a concrete, visible result for one’s associates, thus increasing one’s credibility with them; ii) strengthening their role and territorial network, and the perception of them by other institutions and the public in general as social actors capable of resolving and carrying out things positively for the benefit of citizens; and iii) the possibility of getting funds made available by the Electricity and Gas Authority for personnel training and information to consumers about Alternative Dispute Resolution.

Direct benefits for Enel: i) strengthening its reputation as a company that seeks and makes possible a friendly and proactive relationship with its customers even in disputes; ii) consolidation and widespread dissemination of a corporate culture focused on customers and the consequent reduction in the cost of managing litigation with customers.

N. direct interlocutors (*) permanently involved /Total n. direct interlocutors	100%
N. household customers with access to the service (**)	100%
N. years of uninterrupted implementation of the project (***)	4

(*) In this project the “direct interlocutors” are the consumer associations.

(**) There are 28.2 million household customers out of 32.5 million total ESE and EE customers (business customers do not have access to the Alternative Dispute Resolution procedure yet).

(***) The project was formalized in 2006.

b) Mutual trust – effects that are qualitative or currently not measurable quantitatively

The deep involvement of Enel and all the system of consumer associations in conceiving and implementing the project makes the commitment of the various parties a factor that multiplies the ability to construct a relationship increasingly based on mutual trust. Communication regarding the project was managed by Enel together with the consumer associations. This cooperation presupposes the reciprocal willingness of the parties to associate their respective brands and to be perceived as actors integrated in the achievement of socially significant objectives.

c) Relational ability – effects that are qualitative or currently not measurable quantitatively

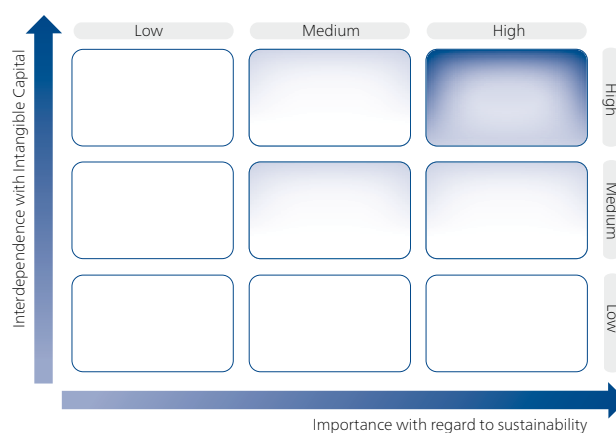
The active involvement of all the consumer associations is evidence of Enel’s relational ability from two points of view: the ability to co-plan initiatives that involve social interests, because they are consistent with the corporate strategies and the ability to understand significant needs of a certain category of external interlocutors and to make corporate decisions responsive to their satisfaction.

4. Intangibility matrix

The work group has developed an intangibility matrix, which, in the application phase still in progress, will allow the Enel to map the projects and activities deriving from the implementation of the Sustainability Plan according to both their interdependence with intangible capital (high, medium, low) and their importance with regard to sustainability (high, medium, low).

The matrix is meant to be an innovative instrument of managerial control and assessment of Enel’s sustainability actions.

As of the drafting of the present Report, the process of the formation of the matrix is being discussed with Enel’s management.



(2) Power reduction management.

The Numbers

SHAREHOLDERS (1-2)

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
Composition of shareholder base ⁽¹⁾							
Investors							
Ministry of the Economy	(%)	13.9	21.1	21.1	-7.2	-34.1	Enel SpA
Cassa Depositi e Prestiti	(%)	17.4	10.1	10.1	7.3	72.3	Enel SpA
Institutional investors ⁽²⁾	(%)	38.1	33.1	34.3	5.0	15.1	Enel SpA
Retail shareholders	(%)	30.6	35.7	34.4	-5.1	-14.3	Enel SpA
Location of institutional investors							
Italy	(%)	13.0	15.1	19.9	-2.1	-13.9	Enel SpA
U.K.	(%)	20.9	23.2	21.3	-2.3	-9.9	Enel SpA
Rest of Europe	(%)	38.5	31.1	29.8	7.4	23.8	Enel SpA
North America	(%)	22.2	24.8	27.0	-2.6	-10.5	Enel SpA
Rest of the world	(%)	5.4	5.8	2.0	-0.4	-6.9	Enel SpA
Concentration index (top 50)	(%)	20.0	21.5	21.7	-1.5	-7.0	Enel SpA
Institutional investor investment style ⁽³⁾							
GARP	(%)	31.2	35.8	23.1	-4.6	-12.8	Enel SpA
Growth	(%)	6.3	6.2	33.4	0.1	1.6	Enel SpA
Index	(%)	9.6	21.3	19.7	-11.7	-54.9	Enel SpA
Value	(%)	27.7	32.5	15.2	-4.8	-14.8	Enel SpA
Hedge	(%)	1.2	0.5	5.8	0.7	140.0	Enel SpA
Other	(%)	24.0	3.7	2.8	20.3	548.6	Enel SpA

(1) During 2009, Enel carried out a capital increase that entailed the issue of 3.216 million new shares. Therefore, the values at the end of 2009 could differ considerably with respect to the previously recorded ones.

(2) In 2009, the recording criterion is different, and thus the value attributed to the institutional investors includes "not identified".

(3) During 2009, the breakdown of the investment styles of institutional investors was reclassified.

SHAREHOLDERS (2-2)

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
Socially responsible investors (SRI)							
Presence of SRI funds ⁽⁴⁾	(n.)	50	68	45	-18	-26.5	Enel SpA
Enel shares held by SRI funds	(million)	437.7	361.3	388.1	76.5	21.2	Enel SpA
Weight of SRI in the institutional funds ⁽⁵⁾	(%)	15.4	17.6	18.3	-2.2	-12.7	Enel SpA
Breakdown of the shareholder base							
Italy	(%)	2.7	1.2	9.3	1.5	125.0	Enel SpA
U.K.	(%)	5.8	2.6	36.0	3.2	123.1	Enel SpA
Rest of Europe	(%)	71.9	59.0	34.0	12.9	21.9	Enel SpA
North America	(%)	13.8	35.2	20.7	-21.4	-60.8	Enel SpA
Rest of the world	(%)	5.8	2.0	-	3.8	190.0	Enel SpA
Presence of SRI in the top 10	(n.)	1	1	2	-	-	Enel SpA

(4) The change in the number of SRI with respect to the last recording is due to a change in the method of the external agency that provides the data.

(5) The percentage decrease of the SRI weight in institutional funds is due to the capital increase that took place in 2009.

TAXES

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
Total taxes	(million euro)	3,385	1,320	2,322	2,065	156.4	Enel
IRES, IRAP, and other taxes	(million euro)	1,690	-219	1,661	1,909	-871.7	Enel
Foreign taxes	(million euro)	830	804	295	26	3.2	Enel
Other taxes and duties	(million euro)	672	551	201	121	22.0	Enel
Fees net of grants received	(million euro)	193	184	165	9	4.9	Enel

CORPORATE GOVERNANCE

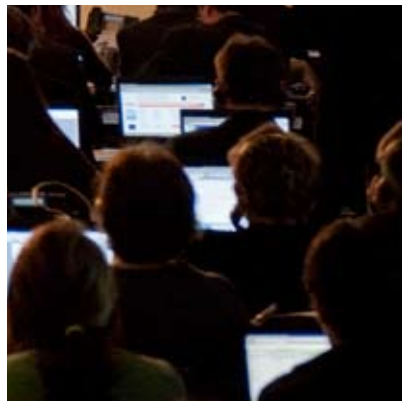
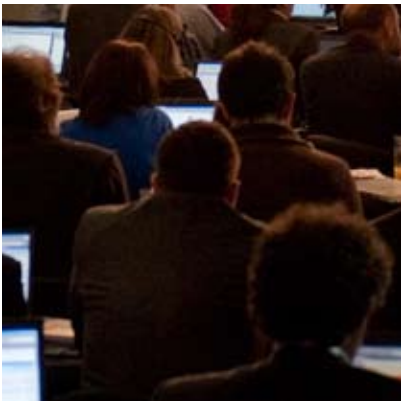
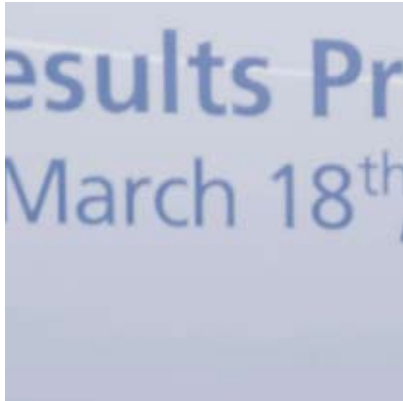
KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
Board of Directors (BoD)							
Total members of BoD	(n.)	9	9	9	-	-	Enel SpA
Independent Directors on BoD	(n.)	5	5	7	-	-	Enel SpA
Directors designated by minority shareholders	(n.)	3	3	3	-	-	Enel SpA
Women on BoD	(n.)	-	-	-	-	-	Enel SpA
Meetings of BoD	(n.)	20	17	21	3	17.6	Enel SpA
Internal dealing ⁽¹⁾							
Shares held by BoD and important persons	(,000)	2,258.3	1,168.8	622.5	1,089.5	93.2	Enel SpA

(1) By internal dealing is meant investment by Directors in Enel SpA shares.





Performance Indicators



Disclosure on Management Approach

Consolidation of the international dimension and value creation

Enel's economic performance aims to preserve and increase the Company's value with regard to all its stakeholders.

To this end, it has established all the procedures necessary to carefully control operating and financial risks and has carried out all the activities that enable the Company to maintain its international rating at the highest level.

Enel's concern for the issues raised by CSR is reflected in the Group's shareholder base.

According to the data as of February 2010, 67 ethical funds hold 18.6% of the shares owned by institutional investors.

In particular, the geographical areas traditionally sensitive to the issues of socially responsible investment (SRI) are well represented among Enel's shareholders. SRI funds pay close attention to how they invest, doing so in companies that act sustainably and excluding those whose behavior is disrespectful of, or even harmful to, the environment and local communities.

The growing interest of SRI funds in Enel highlights the fact that about ten years ago the Company initiated policies to achieve the highest standards of sustainability and its reporting. For this reason, Enel set up the CSR and Relations with Associations Unit as part of its External Relations Department. This unit is a dedicated channel for communicating with sustainability analysts and ethical funds and, in cooperation with the Investor Relations Unit of the Accounting, Finance, and Control Department, handles relations with investors.

Even though the consequences of the financial crisis continue to influence the global economy, 2009 was an important year for Enel. First of all, it finalized the largest acquisition ever made abroad by an Italian firm and fully consolidated the Spanish Company Endesa, one of the largest electricity companies in the world and a leading one in Spain and Latin America. Enel also continued the integration process through numerous initiatives to create value thanks to synergy and the exchange of best practices, which are already contributing to the achievement of challenging financial objectives.

Revenue in 2009 amounted to 64,035 million euro, an increase of 2,851 million euro (+4.7%) with respect to 2008. The growth was essentially due to the increase in revenue earned abroad because of the effect of the change in the method of consolidating Endesa – from proportional to full, line-by-line – adopted at the end of June following the acquisition of the additional shareholding of 25.01%, as well as the different period of consolidation of Enel OGK-5, Enel Distributie Muntenia, and Enel Energie Muntenia, net of the deconsolidation of the Viesgo group, which was sold in June 2008.

The 2009 **EBITDA** (gross operating margin) amounted to 16,044 million euro, an increase of 1,726 million euro (+12.1%) stemming from the different consolidation of Endesa and an improvement in operating efficiency.

The 2009 **EBIT** (operating income) amounted to 10,755 million euro, an increase of 12.7% with respect to 9,541 million euro in 2008 and a performance that is essentially in line with that of the gross operating margin.

Group net income for the year amounted to 5,395 million euro, compared to the 5,293 million euro of the previous year, an increase of 1.9%.

Ten years ago, it would have been difficult to imagine the great transformation that has led to today's Enel. The change regards not only the absolute figures, but also the distribution of business between Italy and abroad. In effect, more than half of the Group's EBITDA is now generated outside Italy, more than half of its installed capacity is abroad, and more than half of its employees are citizens of foreign countries.

In consequence of the acquisition of Endesa, **Enel is now present in 23 countries, with about 81,000 employees and 95.3 GW of installed capacity, including more than 34 GW from renewable energy sources.**

About 50% of the Group's electricity is now produced with zero CO₂ emissions, a characteristic that makes Enel competitive in the markets where it is present and able to fulfill the expectations of both its shareholders and its customers. Having completed in two years its international growth and transformation, Enel now has the size necessary to be a leader in the European market during the coming years. This is also due to its high level of geographical diversification, which enables it to enrich and share knowledge and experiences in all the countries within the boundary. Even though the growth of some energy markets is slowed down by numerous disparities (asymmetry in the degree of openness of national markets, differences in regulatory systems, protectionism, and lack of coordination among network operators), **thanks to its geographical diversification, sharing of best practices, and knowledge management, Enel is able to play a leading role in the global energy market by diversifying regulatory risk and ensuring the profitability of investments and energy security in the markets in which it does business.**

Enel is focusing on vertical integration in strategic markets, from fuel exploration – through joint ventures in producer countries such as Russia, Algeria, Egypt, and Indonesia – to the dissemination of innovative technologies for end customers, such as smart meters and the smart grids of the future.

Competitiveness and supply security and flexibility constitute strategic priorities. To satisfy the requirements of local markets in Spain and Portugal, Enel extracts coal in mines owned by Endesa. Enel also participates in the extraction of gas in Russia and Indonesia. Another very important factor from the point of view of supply security is the availability of a diversified and balanced production mix with a significant contribution from renewable and nuclear energy.

Furthermore, its increased size allows the Company to also capture synergy in the R&D field. Enel strongly promotes technological innovation for smart meters and smart grids, renewable energy, e-mobility, and CO₂ capture and storage (CCS), where, together with Endesa, it is testing the most promising technologies for reducing greenhouse-gas emissions.

Finally, this position – which is also balanced from the geographical point of view – constitutes an important strong point for attracting capital. In spite of the debt

accumulated because of its acquisitions, Enel maintains an “A” financial rating by strengthening its capital structure and continually improving its cash flow.

Enel is progressing towards consolidation and integration – one of the main priorities of its international strategy – throughout the world. In addition to Latin America – where the acquisition of Endesa has enabled us to obtain a leading position in production and a greater presence in distribution – in Russia Enel is the leading foreign company in the energy industry and a vertically integrated presence, from the extraction of natural gas to electricity generation and distribution, and is engaged in the development of the internal market, with significant prospects for growth following the gradual opening of the market decided by the Russian government in January 2009.

In Slovakia, Enel is the country's largest energy company and is continuing its investment for the construction of units 3 and 4 of the Mochovce nuclear power plant. In Eastern Europe, Romania, Bulgaria and the Balkans, Enel is in the generation and distribution business, and is investing large sums in the field of renewable energy, which will continue to be very important in the years to come. From North America to the Mediterranean area, every day wind, solar, hydro, and geothermal plants produce “green” energy for thousands of families, making the business more sustainable.

As it grows, Enel continues to produce all the value that the market expects, while giving its customers accessible, secure, and sustainable energy.

EU6

Management approach to ensure short- and long-term electricity availability and reliability.

In **Italy**, investment in the development of the distribution network is based on forecasts of the growth of the electricity system. The most important development needs of the electricity distribution system (new primary substations, lines, etc.) are assessed through estimates of growth of the demand for power made on the basis of time series and forecasts of the increase in the share of electricity from renewable sources, comparing estimates and forecasts with the structure and analysis of the condition of the network as it is at the time.

Planning the electricity network, including the distribution network, must take into account the growth of the electric system as a whole and make estimates with regard to future scenarios.

In this regard, an essential reference points for the operator of a distribution network are the forecasts regarding the entire electricity system by the transmission network operator. However, the latter uses such forecasts as the basis for drawing up and updating its own development plan, including work on the transmission network, which inevitably involves, to a varying extent, the distribution networks.

The transmission network operator's load forecasts constitute another essential condition for preparing a Development Plan for the distribution network.

The reference scenario is made increasingly complex by the division of the ownership of the networks among numerous companies and especially by the increasing presence of distributed generation, which is also a consequence of recent changes in the law and regulations.

Forecasts of the loads on Enel Distribuzione's medium- and low-voltage networks are developed using methodological criteria and calculation algorithms that also take advantage of the possibilities provided by technological innovation, with particular regard to the instruments for measuring energy and power (electronic meters).

The electrical intensity index is extremely topical, especially in the light of the international agreements prescribed by the Kyoto Protocol, because it is closely connected with the objective of reducing energy consumption, which has to be pursued through a reduction in energy intensity. This means in no way limiting Italy's economic growth, but reducing the quantity of energy used in the production of goods and services, their quantity and quality being equal.

In **Italy**, the actions described below are included in the [“Plan for Improving the Defense and Safety Systems of the National Electricity System”](#), which was drawn up after the blackout on September 23, 2003.

Enel Distribuzione undertook several actions to improve the condition of the defense systems of the National Transmission Network installed on its own plants.

The actions planned by Enel Distribuzione are the following:

- > *Testing and installation of new minimum-voltage automatic load-shedding devices in several of Enel Distribuzione's primary substations.*

These devices act on the switches on the poles of MT backbone lines, disconnecting the load when the electric system is disrupted. Their action is guided by minimum frequency thresholds and the time derivation of the frequency. Terna is in charge of the plan for adjusting the equipment. The new devices allow the transitory period of the frequency to be anticipated, adjusting the load disconnection to the minimum-voltage threshold.

- > *Adaptation of HV backbones characterized by the presence of distributed generation in order to allow the generators in question to participate in the transitory periods of under-frequency of the national electricity system.*

The work will allow the most generators to remain in service during the transitory periods of frequency, so as to contain the decline of frequency and minimize the load disconnection necessary. The adaptation is made by replacing switches with tripolar reclosing with uni-tripolar switches and the related defenses for the HV backbone lines with significant distributed generation (>20 MVA).

- > *Increase of the power factor correction in HV/MV primary substations.*

The installation of new condensers in Enel Distribuzione's primary substations enables the company to counter more effectively the voltage decline that is typical during the summer or in areas with insufficient reactive production capacity.

Enel's distribution companies operating in **Romania**, in the Banat, Dobrogea, and Muntenia Sud areas, are making a series of investments aimed at improving the networks that are obsolete and unable to satisfy the current growth in demand. When it entered the Romanian market five years ago, Enel started to invest in the modernization of the electricity network. All investment was discussed beforehand with the local authorities and consumer associations in order to respond in the best possible way to local needs. In this way, the planned actions of modernization and the amount of investment have been adjusted according to local priorities or necessities. For example, in 2010 Enel will begin an ambitious plan of investment in the Bucharest network, with large-scale work to replace and modernize the stations, medium- and high-voltage cables,

transformers, etc. This plan is the result of discussions about the activities and the improvements planned with the local authorities at each step of the process.

Basing itself on the general planning of the operator of the electricity network, in both the short term and the long term Endesa plans its generation investments (both ordinary and special) and its work on the distribution network with the objective of ensuring its participation in the electricity market and its supply to its customers. In this way Endesa makes its estimates at the national market level and for its supply areas: demand (power and energy), network restrictions, new capacity communicated or necessary, etc. On the basis of these studies, Endesa makes a detailed re-examination of the infrastructure included in the national general plan and every year draws up a Capacity Plan to adjust its capital expenditure. More specifically and for the short term, every year the company draws up a plan that includes all the data regarding demand, water availability, anticipated production per power plant, plant shutdowns for maintenance, quantity of electric power purchased from other companies, etc. This annual plan is updated monthly with the latest market data and production programs are modified accordingly. Plans for shutting down power plants for maintenance must be approved by the power network operator to ensure the security of the electricity supply.



Demand-side management programs, including residential, commercial, institutional, and industrial programs.

A technologically innovative system of monitoring the low-voltage network, metering electricity, managing the contractual relationship with customers, both locally and remotely, is Automated Meter Management (AMM).

AMM is based on smart infrastructure, of which the electronic meter is the front end towards the customer. The electronic meter is the peripheral component of the electricity distribution network and is an integrated group which comprises, in addition to its metering functions, a display enabling customers to access information about contracts and consumption, a form allowing them to communicate with Enel's central systems through the electricity network, and a remote-control device authorizing supply connection and disconnection. Thanks to these components, the meter is able to transmit information on consumption, receive updates of the contractual parameters chosen by customers, and perform connections and disconnections at a distance. Thanks to the intelligence of its equipment, the AMM infrastructure constitutes an important part of smart grids, whose development in the next few years will allow electricity transmission and distribution networks to be adapted to the changing requirements of the market.

In **Italy**, the AMM is a reality by now in Enel's distribution network. In effect, the installation of smart meters has been completed and the supporting IT infrastructure has been put into operation. The 32 million meters are now managed remotely with computerized transactions that enable the Company to serve its customers more quickly and effectively. The number of customers served and the performance of the system are currently unrivaled in the world.

The remote management of most commercial transactions and the main activities on the meters, thus avoiding on-site work, also constitutes a contribution to the reduction of CO₂ emissions.

Thanks to the success of the AMM in Italy, Enel will extend the application of this system to its distribution networks in other countries. In particular, a project is in progress to adapt the system and its equipment to the Spanish regulatory and legislative obligations. During 2010, Endesa will begin to install the system in its distribution network, with the 13 million meters being installed by the end of 2015. The solution that will be used by Endesa won the European Utility Award in the Business Performance category during the Metering Europe 2009 event. For further details, see the "Projects tailored to customers" Focus in the chapter on "Performance Indicators for Product Responsibility" on page 287 of this Report.

EU8

Research and development activity and expenditure aimed at providing reliable electricity and promoting sustainable development.

In 2009, Enel spent about 86 million euro on the development and demonstration of innovative technology as part of its [Technological Innovation Plan](#) (650 million euro in the period 2009-2013).

Research expense was allocated as follows: 50% for renewable sources (photovoltaic and thermodynamic solar, geothermal, wind, and biomass), 46% in the field of fossil generation (the capture and storage of CO₂, hydrogen, emission abatement, increasing the efficiency of generating plants), and 4% for energy efficiency, electric mobility, and the development of active networks.

For further details, see the "Objective: Research and Development" Focus on page 103 of this document.

EU9

Provisions for decommissioning of nuclear power sites.

The costs of decommissioning nuclear power plants can be estimated for single plants with reasonable accuracy by basing the calculation on the different experiences in the USA (for example, Shippingport), Great Britain (for example, Berkeley), etc. Independent experts provide periodically updated cost estimates to inform both utilities and the managers of the funds. The decommissioning and the management of the related fund are generally coordinated by entities that work under the supervision of the government agencies concerned.

[On the basis of the parameters established by the national law concerned, Enel and its subsidiaries are responsible for the accumulation of the funds dedicated to ensure that, as far as possible, no liability or expense falls on future generations.](#)

In 2009, Enel accumulated a total of 3,054 million euro in the provision for the various decommissioning funds.

In **Italy**, a national nuclear plan cannot fail to specify precise criteria regarding the structure of a decommissioning fund. Precisely for this reason, in legislative decree n. 31 of February 15, 2010 there are two articles, 20 and 21, regarding the dismantling of plants and the establishment and management of the fund. While article 20 refers to Sogin SpA – Società Gestione Impianti Nucleari, the company entrusted with managing the decommissioning of Italy's nuclear plants, which were shut down after the referendum in 1987 – which, once the useful lives of the power stations are over, will handle the dismantling process, article

21 concerns aspects of the financing and management of the fund, such as the yearly payments, the revision of cost estimates, and the necessity of benchmarking the cost with reference to similar experiences in other countries.

In its capacity as the owner of the only license, Enel will thus be responsible for accumulating the decommissioning fund in an amount commensurate with the estimated dismantling costs.

Internationally, Enel is present as an operator of nuclear power plants in Spain and Slovakia, where decommissioning is regulated by national laws and managed at the local level.

As far as Enel's interest in Flamanville 3, in France, is concerned, Enel's contribution to the decommissioning fund is specified in the agreements signed with EdF (Électricité de France).

In **Slovakia**, the current decommissioning activities regard two of Enel's plants: plant A1 and plant V1, both of which are located at Bohunice. The former is a small (143 MW) plant that was in operation until the 1970s, while the latter consists of two 440-MW units, Bohunice 1 e 2, which were definitively shut down in 2006 and 2008. Three different alternatives for decommissioning Bohunice V1 are currently being examined. They will be assessed according to cost, technical feasibility, the radioprotection and health of the workers and the population, and the protection of the environment.

As in every other nuclear country – or country that has been nuclear in the past – decommissioning in Slovakia is regulated by special laws: a law of 1994 and its subsequent amendments, including law 238/2006. They establish the activities that must be considered in decommissioning, the method of financing, and management of the fund.

The nuclear fund is an independent legal entity, administered by the Ministry of the Economy and endowed with its own organizational structures, including a Board of Trustees, which is entrusted with making an annual independent estimate of the amount of the fund.

On May 21, 2008, the Government's strategy for covering the decommissioning fund was approved, with regard to both future costs and the current shortfall.

The accumulation of the fund is the responsibility of the utility that manages the nuclear plants and thus of Slovenské elektrárne, while the decommissioning itself is managed by Javys, a 100%-government-owned company.

At the end of 2009, the accumulated decommissioning fund for plants V1 and V2 at Jaskovské Bohunice and EMO 1 and EMO 2 at Mochovce amounted to 2,728 million euro at the end of 2009 (2,696 million euro as of December 31, 2008). This amount includes 261 million euro (271 million euro as of December 31, 2008) for the disposal of nuclear waste, 1,604 million euro (1,547 million euro as of December 31, 2008) for the disposal of spent nuclear fuel, and 863 million euro (878 million euro as of December 31, 2008) for the dismantlement of the plants. The estimated timing of the payment of the expenses takes into account applicable current knowledge regarding environmental regulations and the operating duration used for the cost estimate, as well as the critical nature of the very long period of time in which such costs could take place. The charges included in the fund were discounted using rates ranging from 1.86% and 4.52%. The European Union has also set up an additional fund: the international fund for the decommissioning of Bohunice (BIDSF), administered by the European Bank for Reconstruction and Development (EBRD) and managed by Javys and external consultants, which currently amounts to about 180 million euro.

In **Spain**, the parties involved in decommissioning are the regulatory Authority, the Consejo de Seguridad Nuclear (CSN, which establishes the laws to apply), the Ministry of Industry, Tourism, and Commerce (MITYC, whose opinion is binding), and the government-owned company ENRESA (Empresa Nacional de Residuos Radiactivos, SA), to which ownership of the site has been temporarily transferred and which will manage the dismantlement directly.

The laws that regulate decommissioning of nuclear plants are royal decrees 1836/1999, 1522/1984, and 1349/2003.

The fund is financed in different ways:

- > a surcharge on electricity bills, the amount of which is established yearly by the MITYC (for example, in 2006 it amounted to 0.21% for household customers and 0.60% for business customers);
- > a surcharge on generation, paid by the utilities in proportion to the energy produced by nuclear plants. This amount is also established by the MITYC from year to year (i. e., in 2006 it ranged between 0.214 and 0.25 c€/kWh);
- > invoicing to other nuclear installations, which will have to be decommissioned at the end of their useful life;
- > payment by companies that generate radioactive waste of sums for other purposes (i. e., there is talk of contributions in the field of medicine and industry).

These funds are administered by ENRESA, under the supervision of the competent government bodies.

At the end of 2009, the decommissioning fund had accumulated 326 million euro (187 million euro as of December 31, 2008) regarding the costs that will be incurred when the nuclear plants are decommissioned by ENRESA. The quantification of the costs is based on the contract between ENRESA and the electricity companies and was approved in September 2001 by the Ministry of the Economy, which regulates the process of dismantling and closing the nuclear power plants. The time horizon covered corresponds to the three-year period between the interruption of production and ENRESA's takeover of the management of the plant (post-operational costs).

In **France**, as part of the Protocol of Understanding between Italy and France on energy cooperation, on February 24, 2009, Enel and EdF signed a Memorandum of Understanding that creates the foundation for a program of joint development of nuclear energy in Italy by the two companies. In particular, after the legislative and technical process for the return of nuclear energy to Italy has been completed, Enel and EdF undertake to develop, construct, and put into operation at least four generating units based on the EPR (European Pressurized Water Reactor) technology. The first plant of this kind is under construction at Flamanville 3, in Normandy, and Enel has a 12.5% equity interest in it. The agreement signed by Enel and EdF concerning their cooperation on the Flamanville 3 plant provides for Enel to contribute to the decommissioning expense in proportion to the equity stake acquired and will be made in a single payment when the plant goes into operation, which is expected to be in 2012.

ECONOMIC PERFORMANCE

EC1

Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.

In 2009, revenue amounted to 64,035 million euro, operating costs to 41,950 million euro, EBITDA to 16,044 million euro, EBIT to 10.755 million euro, and Group net income to 5,395 million euro.

The donations made to Enel Cuore Onlus, a non-profit association founded by the Company to perform concrete charitable deeds in both Italy and abroad, amounted to 31.4 million euro, including 25 million euro allocated to the support of the Italian government's Special Fund established pursuant to article 81 of Legislative Decree 112/2008 (the so-called "Social Card").

See the Table at the end of this chapter.

EC2

Financial implications and other risks and opportunities for the organization's activities due to climate change.

The fight against climate change significantly influences the Group's activities. It has been an important consideration in the Company's strategies for years and will become even more so in the next few years, given that negotiations are currently in progress to establish international policies on the climate after 2012. In July 2009, Enel involved Endesa and started a strategic assessment process to analyze the effectiveness of the measures that the Group has adopted to cope with the current and future consequences of climate change. Ending in December 2009, the process outlined alternative scenarios regarding the development of policies on climate change in the next few years and analyzed the related impacts. This allowed several strategic options to be developed, which the Group consider when the Business Plan is drawn up. The most important risks for the Group currently caused by climate change are regulatory ones and regard in particular generating plants that do not meet the standards on greenhouse-gas emissions. This aspect particularly concerns the European thermal plants subject to the Emissions Trading Scheme (European Union Greenhouse Gas Emission Trading System - EU ETS), which is provided for by the EU's regulations to implement the Kyoto Protocol. However, since 2005 the Group has acquired solid experience in the ETS and manages the risk with a strategy that enables it to minimize the impacts. The strategy is based, first of all, on the continuous monitoring of the emission level and a corresponding adjustment of the portfolio to the available compliance instruments, in particular EU ETS "allowances" and Clean Development Mechanism (CDM) credits for the purpose of investing in the opportunities that, environmental objectives equal, cost least. With regard to the CDM, it should be noted that, together with Endesa, Enel is one of the major international players in this mechanism, which allows companies to offset their emissions through projects for reducing emissions in less developed countries. Enel and Endesa have more than 100 projects in their

portfolio, which will enable an estimated potential of 200 million tons of CO₂ to be avoided in 2020.

Furthermore, in terms of managing and improving the plants, the strategy is based on a continual commitment to increasing efficiency (see the EN5 indicator on page 118 of the Report), and the diversification of the production mix in favor of renewable sources and other technologies with zero or low emissions.

Enel's commitment to renewable sources is shown by the fact that the Company has established a new company completely dedicated to them, [Enel Green Power](#), with 4,800 MW of installed capacity in Europe and in the Americas and an annual production of more than 18.9 TWh. Enel Green Power will soon be listed on the Milan and Madrid stock exchanges and its minority interests will be sold in 2010 or 2011.

Taking into account, moreover, the contribution of the large hydro power plants and the plants controlled by other Group companies, such as Enel Produzione in Italy, Endesa and its subsidiaries in Europe and Latin America, and Slovenské elektrárne in Slovakia, Enel can currently count on more than 38,365 MW of installed renewable power throughout the world.

From the point of view of the development of low-emission technologies, it should be noted that [Enel is one of the world's leading utilities in the field of carbon capture and storage \(CCS\) technology](#), applied, in particular, to emissions of coal-fired power plants. The Group is also a technological leader in the development of smart grids.

For Enel, commitment to both renewable energy and innovation represents an investment in competitiveness, because it allows the Company to capture the benefits connected with the growth of the so-called green economy. These activities should be counted among those that the Group carries out in order to exploit the opportunities provided by policies on climate change, in addition to the management of the associated risks.

To complete this analysis of regulatory risks, it should be added that the Group is constantly engaged in fulfilling all its legal obligations which, like those connected with emissions, can regard its activities in the different countries where it is present. In Italy, for example, Enel constantly manages, with the criterion of minimizing costs, the fulfillment of legal obligations of, respectively, distributors, with regard to the efficiency of end consumption (white-certificate system) and producers, with regard to the share of electricity generated from renewable sources that must be injected into the network every years (green-certificate system). Additional risks for the Group caused by climate change regard the physical effects on the plants. Reduced precipitation, for instance, can cause a decrease in hydroelectric production, while an increase in temperature can interfere with the cooling systems of thermal plants. As things are, these risks occur only occasionally and thus we do not have a detailed case record and more information.

On emission trading and its financial implications, also see the EU5 indicator on page 50.

EC3

Coverage of the organization's defined benefit plan obligations.

As of December 31, 2009, the liability recorded in the financial statements regarding pension benefits amounted to 1,297 million euro, while the liability regarding other benefits amounted to 1,813 million euro. (Further information is available on page 254 of the Annual Report).

In Italy, in addition to the obligatory system provided for by the law, there are two complementary pension funds with defined benefits:

- > **FOPEN**, for electricity-industry employees (90% participation) and
- > **FONDENEL**, for executives (100% participation).

Furthermore, the Enel Group pays its employees various kinds of individual benefits connected with their termination bonus, loans, age- and pension-related additional months of salary, loyalty bonuses after a certain number of years of employment, supplementary pensions and health care, and other such services.

As far as Endesa is concerned, the 17,751 employees with a pension fund constitute 97% of its workforce in the countries where this kind of institution exists. The company sponsors pension plans that manage 3,157 million euro of assets, with 35,110 participants.

Of the total sum, 2,460 million euro belong to Endesa's Pension Plan in **Spain**, 521 million euro to pension plans in **Brazil**, and 176 million euro to Endesa's pension plan for the employees of Ascó. In addition to those that are obligatory by law in each country, Endesa offers various social benefits to different groups of employees, including contributions for their studies, loans, energy supply, subsidized lunches, and life and health insurance. Endesa's total expense in this field amounts to 60.2 million euro.

Within the International Division's boundary, various kinds of supplementary pensions are provided in Russia and Slovakia. The data for Romania and Bulgaria are lacking.

Enel undertakes to report this indicator for the entire boundary in the medium term.

In **Russia**, OGC5 has an exclusively employer-financed pension fund with defined benefits, which manages the supplements to NPFS "Elektroenergetiki" pensions, ensuring pensions amounting to 20% of the last salary earned by the employee before retiring.

In **Slovakia**, Slovenské elektrárne pays for all its employees an additional contribution – from 3% of the salary to 5.5% of the same for employees included in the occupational categories most at risk – with respect to the minimum of 2% established by law.

EC4

Significant financial assistance
received from governments

In 2009, Enel received 24.2 million euro in grants, while its remaining debt regarding EIB loans amounts to 4,865.2 million euro.

Enel monitors grants in Europe. The 2009 data regard only Italy, because this is the only country monitored that received this kind of funds in 2009.

Enel undertakes to monitor in the medium term this indicator in all the countries in which it operates.

For further information, see the table at the end of this chapter, on page 93.

MARKET PRESENCE

Joint liability in the supply chain

Following provisions of Italian law that have focused attention [on guarantees for the employees of contractors](#), in the last few years Enel, in its capacity as a customer, now has joint liability with its contractors with regard to the fulfillment of obligations concerning the payment of salaries, as well as pension and health-care contributions. The joint liability of the customer and the contractor or sub-contractor is effective for two years after the contract is terminated.

With regard to questions of ethics and sustainability in Enel's investment and procurement practices, in 2009 the Procurement Department and the Personnel Department of Enel Servizi devised a system for formalizing controls, which will be implemented first in the Sales Division.

Focusing on such joint liability, this project establishes an additional channel of communication between Enel and its suppliers, as well as constant monitoring of the latter, through an ad hoc portal.

In effect, Enel will put a platform at its contractors' and suppliers' disposal to facilitate the computerized collection and management of the documentation regarding the joint liability through the dematerialization of the documents and their consequent exchange for the purpose of checking that the various contributions have been paid.

The first to be involved in this project are the contact center contractors, who will have to periodically provide the documents that have to be checked in order to ensure that the rights of the workers are being respected and to prevent or remedy negligence.

EC6

Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.

Enel's procurement procedures comply with current regulations, which require that the award and execution of contracts for work, supplies, and services take place in accordance with the well-known [principles of publication, non-discrimination, transparency, and cost-effectiveness](#).

All competitors who possess the general and special requisites provided for in the related calls for bids may participate in the tenders, regardless of their geographical location. The contract is awarded to the company that makes the best bid, according to the criteria of the lowest price or the one that is economically most advantageous, as specified in the call for bids.

With regard to the procurement of the foreign companies of the Group, in many countries they generally avail themselves of local suppliers. However, the Group does not have policies that limit procurement to "domestic" suppliers, and the choice is usually based on logistic questions and costs.

As far as the most significant contracts are concerned (ones involving more than 1,000,000 euro), in 2009 the Enel Group awarded 81% of their value to local suppliers (i.e., resident in a Group country) and 19% to foreign (with respect to their country of origin) ones.

The calculation of the percentages was made considering as the values of contracts awarded to "local" suppliers the amounts of the contracts signed with companies with their registered office or branches in the countries where the Group operates abroad, even though they belong to multinational groups and/or do business abroad.

By "local" is meant that the supplier is from the country in which Enel operates.

See the table at the end of this chapter.

EC7

Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.

As far as hiring policies are concerned, Enel does not have a defined policy guaranteeing preferential terms for local hires, even though the Company tends to favor residents if possible. This is the corporate approach for hires at all organizational levels.

INDIRECT ECONOMIC IMPACTS

EC8

Development and impact of infrastructure investments and services provided primarily for “public benefit” through commercial, in-kind, or pro bono engagement.

Enel's projects and initiatives in support of communities are classified according to the method of the [London Benchmarking Group \(LBG\)](#). This model ensures continuity and consistency between strategic and social objectives by distinguishing four main categories of Enel's commitment regarding communities. As of the end of 2009, total expense and investment amounted to 109.5 million euro, including – according to the LBG classification – 47 million for donations, 50.9 for investment in communities, 11.1 million for commercial initiatives with a social impact, and 0.4 million for socially sustainable business initiatives.

[Enel's philanthropic and charitable activities are mostly entrusted to Enel Cuore, a non-profit association founded by Enel SpA and some of its subsidiaries](#) (Enel Distribuzione, Enel Produzione, Enel Trade, Enel Energia, Enel Sole, and Enel.si).

In 2009, Enel Cuore Onlus received 31.4 million euro, including 25 million euro for allocation to the Special Fund established by article 81 of Legislative Decree 112/2008 (the so-called “Social Card”). For further information, see the “Commitment to Enel Cuore” at the end of this document.

Much of the remaining amount donated in 2009 consists of Endesa's donations to its foundation (7.3 million euro) and donations to the Umberto Veronesi Foundation, the Accademia di Santa Cecilia, and the Teatro alla Scala Foundation. For further details, see the Table at the end of this chapter.

In particular, because of Italian regulatory restrictions, the Company does not make “in-kind” donations of electricity or gas. Only in exceptional cases are pro bono services provided, such as supplying generating sets when there are natural disasters. In addition, the Company is working on a plan to help employees who do volunteer work.

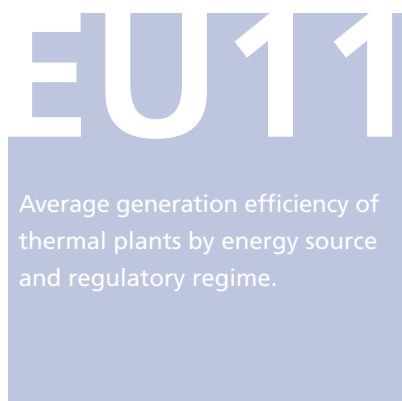
AVAILABILITY AND RELIABILITY

EU10

Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime.

The information requested regards Business Plan data which, for strategic reasons, Enel feels it cannot publish. The Enel Group guarantees that it will keep the commitments made with the institutions in the countries in which it is present to ensure a productive capacity capable of satisfying long-term electricity demand.

SYSTEM EFFICIENCY



The average generation efficiency of Enel's thermal plants in Italy and abroad is shown in the following table.

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
Thermoelectric plants							
Plant efficiency - coal	(%)	35.0	34.2	34.6	0.7	2.1	Italy
Plant efficiency - CCGT	(%)	51.5	52.6	52.5	-1.1	-2.2	Italy
Plant efficiency - oil/gas	(%)	31.1	32.3	34.6	-1.1	-3.5	Italy
Plant efficiency - lignite	(%)	29.8	29.0	34.6	0.8	2.7	Bulgaria
Plant efficiency - lignite	(%)	27.1	28.3	34.6	-1.2	-4.2	Slovakia
Plant efficiency - lignite	(%)	41.5	35.3	34.6	6.2	17.5	Endesa
Plant efficiency - coal	(%)	28.8	28.9	34.6	-0.1	-0.4	Slovakia
Plant efficiency - coal	(%)	36.4	35.9	34.6	0.5	1.4	Russia
Plant efficiency - coal	(%)	35.4	36.4	34.6	-0.9	-2.6	Endesa
Plant efficiency - CCGT	(%)	45.1	51.1	34.6	-6.0	-11.8	Endesa
Plant efficiency - oil/gas	(%)	34.5	35.5	34.6	-1.0	-2.9	Endesa
Plant efficiency - oil/gas	(%)	37.6	-	34.6	-	-	Russia



The percentages of transmission losses in Italy and in Romania are shown below. Because it is not easy to standardize the data regarding the countries of Latin America with respect to European ones, they are not accounted for in this Report. Enel undertakes to report in the medium term this indicator for all the countries in which it operates.

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
Network losses	(%)	6.0	6.0	6.0	-	-	Italy
Network losses	(%)	17.9	17.0	n.a.	0.9	5.3	Romania
Network losses	(%)	7.5	17.0	-	-9.5	-55.8	Iberia



The Numbers

VALUE

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	

EC1 Value added by stakeholder

Revenue	(million euro)	64,035	61,184	43,688	2,851	4.7	Enel
External costs	(million euro)	42,214	41,841	29,916	373	0.9	Enel
Net proceeds / (Expense) from commodity risk (million euro)		264	-20	-36	284	-1,420.0	Enel
Gross value added from continuing operations (million euro)		22,085	19,323	13,736	2,762	14.3	Enel
Gross value added from discontinued operations	(million euro)	-158	240	179	-398	-165.8	Enel
Gross total value added	(million euro)	21,927	19,563	13,915	2,364	12.1	Enel
Shareholders	(million euro)	2,734	3,031	3,030	-297	-9.8	Enel
Providers of capital	(million euro)	1,687	3,162	873	-1,475	-46.6	Enel
Employees	(million euro)	4,908	4,049	3,263	859	21.2	Enel
Government	(million euro)	3,385	1,320	2,322	2,065	156.4	Enel
Enterprise	(million euro)	9,213	8,001	4,427	1,212	15.1	Enel

EC1 Economic value created

Economic value generated directly:

Revenue	(million euro)	64,035	61,184	43,688	2,851	4.7	Enel
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Economic value distributed:

Operating costs	(million euro)	41,950	41,861	29,952	89	0.2	Enel
Personnel costs and benefits	(million euro)	4,908	4,049	3,263	859	21.2	Enel
Payments to providers of capital	(million euro)	4,421	6,193	3,903	-1,772	-28.6	Enel
Payments to governments	(million euro)	3,385	1,320	2,322	2,065	156.4	Enel
Economic value of discontinued operations	(million euro)	-158	240	179	-398	-165.8	Enel
Economic value created	(million euro)	9,213	8,001	4,427	1,212	15.1	Enel

FINANCING

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	

EC4 Grants

Grants disbursed during the period ⁽¹⁾	(million euro)	24.2	15.3	15.4	8.9	58.4	Italy
Energy networks	(%)	41.6	79.4	77.8	-37.8	-47.6	Italy
R&D	(%)	14.2	10.9	5.3	3.3	30.3	Italy
Renewable energy	(%)	44.0	9.2	11.7	34.8	379.8	Italy
Other	(%)	0.2	0.5	5.1	-0.3	-68.0	Italy
Number of projects that have received disbursements ⁽¹⁾	(n.)	113	100	94	13	13.0	Italy

EC4 Loans granted by the EIB and others

Remaining debt regarding EIB and other loans ⁽²⁾	(million euro)	4,865.2	3,780.4	3,669.9	1,084.8	28.7	Enel
- Italy	(million euro)	3,293.1	2,719.4	2,951.1	573.7	21.1	Italy
- Abroad (Endesa, Slovakia)	(million euro)	1,572.1	1,061.0	718.7	511.1	48.2	Abroad
Energy networks	(%)	80.4	72.6	69.2	7.8	10.8	Enel
R&D	(%)	0.1	0.2	0.2	-0.1	-46.9	Enel
Renewable energy	(%)	12.3	16.4	17.7	-4.1	-24.8	Enel
Other	(%)	7.2	10.9	12.9	-3.7	-33.9	Enel
Number of projects in progress approved with EIB and other loans ⁽³⁾	(n.)	60	26	21	34	130.8	Enel

(1) The value for 2008, which in the 2008 Sustainability Report amounted to 26.8, has been adjusted, because it erroneously considered the share of receipts of Metansicula for 2007.

(2) The value for 2008 has been adjusted, because it did not take into account EIB loan n. 21120 regarding Endesa Spain. The 2008 boundary comprises Italy, Slovakia, and Endesa Spain.

(3) The 2008 boundary comprises Italy, Slovakia, and Endesa Spain.

SUPPLIERS ⁽¹⁾

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
EC6 Suppliers							
Number of suppliers	(n.)	51,088	16,633	17,391	34,455	207.1	Enel
Supplier concentration (top 15) ⁽²⁾	(%)	41.5	32.1	29.2	9.4	29.3	Enel
Local suppliers with contracts worth >1 million euro	(n.)	1,118	509	560	609	119.6	Enel
Foreign suppliers with contracts worth >1 million euro	(n.)	115	45	57	70	155.6	Enel
Spent on local suppliers with contracts worth >1 million euro	(million euro)	5,879.8	2,360.0	2,373.5	3,519.8	149.1	Enel
Spent on foreign suppliers with contracts worth > 1 million euro	(million euro)	1,413.5	708.7	434.0	704.8	99.4	Enel
% of expense on local suppliers	(%)	81	77	85	4	5.2	Enel
% of expense on foreign suppliers	(%)	19	23	15	-4	-17.4	Enel
Supplies and fuels							
Procurement of materials and services	(million euro)	8,975	3,692	3,504	5,283	143.1	Enel
Supplies	(million euro)	1,843	1,873	1,273	-30	-1.6	Enel
Work	(million euro)	3,138	622	960	2,516	404.5	Enel
Services	(million euro)	3,994	1,197	1,271	2,797	233.7	Enel
Fuel purchases	(million euro)	5,014	7,881	4,556	-2,867	-36.4	Enel
Gas	(million euro)	1,174	1,282	2,777	-108	-8.4	Enel
Oil	(million euro)	1,162	646	496	516	79.9	Enel
Coal	(million euro)	1,908	5,179	345	-3,271	-63.2	Enel
Services	(million euro)	770	774	938	-5	-0.6	Enel
Management instruments							
Active qualifications	(n.)	2,541	2,449	2,406	92	3.8	Enel
Online tenders	(%)	90	91	90	-1	-1.2	Enel
Online purchases	(%)	92	82	88	10	11.7	Enel
Non-competitive ⁽³⁾	(%)	42.5	41.7	37.7	0.8	1.9	Enel
Litigation with suppliers							
Total proceedings	(n.)	598	584	548	14	2.4	Enel
Percentage of litigation as defendant	(%)	83.5	82.2	83.6	1.4	1.6	Italy
New proceedings	(n.)	155	6	15	149	2,483.3	Enel

(1) For the 2009 figure the boundary is Enel, while for 2008 and 2007 the boundary is Italy.

(2) For 2009, excluding Endesa Latin America.

(3) For 2009, excluding Endesa.

FINANCIAL PERFORMANCE (1/2)

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
PROVIDERS OF CAPITAL							
Debt							
Total debt	(million euro)	50,870	49,967	55,791	903	1.8	Enel
Debt to Equity	(index)	1.15	1.90	2.40	-0.75	-39.5	Enel
Rating							
S&P	(index)	A -	A -	A -	-	-	Enel
Outlook	(index)	Stable	Negative	Negative	-	-	Enel
Moody's	(index)	A2	A2	A2	-	-	Enel
Outlook	(index)	Negative	Negative	Negative	-	-	Enel
Fitch	(index)	A -	-	-	-	-	Enel
Outlook	(index)	Stable	-	-	-	-	Enel
Share performance							
Share financial performance							
Enel	(%)	1.5	-44.4	4.1	45.9	-103.4	Enel SpA
FTSEMib (MIB30 in 2008 and 2007)	(%)	19.5	-48.4	-6.5	67.9	-140.3	Enel SpA
FTSEElec	(%)	5.8	-40.3	16.2	46.1	-114.4	Enel SpA
Acea	(%)	-18.5	-32.3	-2.4	13.8	-42.7	Enel SpA
A2A	(%)	4.8	7.6	2.2	-2.9	-37.4	Enel SpA
Centrica	(%)	7.5	-16.7	1.2	24.2	-144.9	Enel SpA
Endesa	(%)	-16.3	-21.3	2.4	5.0	-23.5	Enel SpA
Iberdrola	(%)	2.0	-37.1	25.6	39.1	-105.4	Enel SpA
RWE	(%)	6.7	-34.0	15.2	40.7	-119.7	Enel SpA
E.ON.	(%)	2.8	-41.4	40.6	44.2	-106.8	Enel SpA
Cez	(%)	10.1	-42.4	42.0	52.5	-123.8	Enel SpA
GDF-Suez	(%)	-11.7	-11.7	14.8	0.0	0.1	Enel SpA
EdF	(%)	1.4	-49.1	47.6	50.5	-102.9	Enel SpA
EdP	(%)	15.1	-39.7	16.4	54.8	-138.0	Enel SpA
Dividend Yield							
Enel ⁽¹⁾	(%)	6.2	11.7	6.0	-5.5	-47.0	Enel SpA
Acea	(%)	-	6.8	3.8	-	-	Enel SpA
A2A	(%)	-	7.6	2.2	-	-	Enel SpA
Centrica	(%)	4.6	4.6	3.5	0.0	-0.7	Enel SpA
Endesa	(%)	4.3	20.6	4.5	-16.3	-79.2	Enel SpA
Iberdrola	(%)	7.0	5.0	2.5	2.0	40.9	Enel SpA
RWE	(%)	5.2	7.1	3.6	-1.9	-27.1	Enel SpA
E.ON.	(%)	5.1	5.3	2.3	-0.1	-2.7	Enel SpA
Cez	(%)	5.8	5.1	1.5	0.7	13.5	Enel SpA
GDF-Suez	(%)	4.9	4.0	2.8	0.9	22.5	Enel SpA
EdF	(%)	1.3	3.1	2.1	-1.8	-57.1	Enel SpA
EdP	(%)	-	5.2	2.5	-	-	Enel SpA

FINANCIAL PERFORMANCE (2/2)

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
PROVIDERS OF CAPITAL							
Enel in the main worldwide stock indexes							
E100	(%)	0.8	0.7	0.8	0.1	7.2	Enel SpA
Ftse Italy All Share (MIBTEL in 2008 and 2007)	(%)	9.3	7.3	6.7	2.0	27.7	Enel SpA
Ftse MIB (S&P/MIB in 2008 and 2007)	(%)	10.8	9.8	8.7	0.9	9.6	Enel SpA
Ftse Italy All Share Utilities (MIBPUBLH in 2008 and 2007)	(%)	64.2	36.0	41.3	28.2	78.4	Enel SpA
BE500	(%)	0.6	0.6	0.6	0.0	-7.7	Enel SpA
BEELECT	(%)	9.3	7.2	8.8	2.1	29.4	Enel SpA
SX5E	(%)	1.7	1.5	1.5	0.2	12.1	Enel SpA
SXXE	(%)	1.1	1.0	0.9	0.1	10.4	Enel SpA
SX6E	(%)	11.1	8.2	8.7	2.9	35.4	Enel SpA
Enel in the FTSE4GOOD sustainability index	(index)	No	No	No	-	-	Enel SpA
Enel presence in the DJSI	(index)	Yes	Yes	Yes	-	-	Enel SpA
Shareholder's return							
EPS ⁽¹⁾	(Euro cents)	59.0	54.0	64.3	5.0	9.3	Enel SpA
DPS ⁽¹⁾	(Euro cents)	25.0	46.6	49.0	-21.6	-46.4	Enel SpA
TSR since the IPO	(%)	-5.4	-0.5	6.4	-5.0	1.041.5	Enel SpA
TSR last 2 years	(%)	-17.4	-18.3	19.4	0.8	-4.5	Enel SpA
Communication with shareholders							
Meetings with investors	(n.)	360	143	136	217	151.7	Enel SpA
Information on CSR	(n.)	31	30	35	1	3.3	Enel SpA
Retail-shareholder requests for information	(n.)	820	608	769	212	34.9	Enel SpA

(1) 2008 values per Enel share adjusted following the capital increase. The dividend must be approved by the Annual General Meeting.

ECONOMIC PERFORMANCE

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
EC1 Economic performance							
Revenue	(million euro)	64,035	61,184	43,688	2,851	4.7	Enel
Sales	(million euro)	20,330	22,609	22,179	-2,279	-10.1	Enel
GEM	(million euro)	18,377	22,143	17,062	-3,766	-17.0	Enel
Engineering and Innovation	(million euro)	903	1,005	930	-102	-10.1	Enel
Infrastructure and Networks	(million euro)	7,242	6,537	5,457	705	10.8	Enel
Iberia and Latin America	(million euro)	21,532	15,805	4,517	5,727	36.2	Enel
International	(million euro)	5,540	4,708	2,794	832	17.7	Enel
Renewable Energy	(million euro)	1,751	1,852	1,536	-101	-5.5	Enel
Parent Company	(million euro)	637	727	950	-90	-12.4	Enel
Services and Other Businesses	(million euro)	1,092	1,169	1,147	-77	-6.6	Enel
Elisions and Adjustments	(million euro)	-13,369	-15,371	-12,884	2,002	-13.0	Enel
EBITDA	(million euro)	16,044	14,318	9,840	1,726	12.1	Enel
Sales	(%)	2.4	3.9	3.2	-1.4	-36.7	Enel
Generation and Energy Management	(%)	18.8	21.7	27.9	-2.9	-13.3	Enel
Engineering and Innovation	(%)	0.1	0.1	0.1	0.0	8.4	Enel
Infrastructure and Networks	(%)	24.8	26.0	36.0	-1.1	-4.4	Enel
Iberia and Latin America	(%)	36.9	32.5	14.4	4.5	13.8	Enel
International	(%)	8.9	7.3	7.8	1.6	21.7	Enel
Renewable Energy	(%)	7.3	8.3	10.1	-1.0	-11.5	Enel
Other (Parent Company, Services and Other Businesses, Elisions and Adjustments)	(%)	0.6	0.3	0.5	0.3	115.1	Enel
EBIT	(million euro)	10,755	9,541	6,781	1,214	12.7	Enel
EBT	(million euro)	9,068	6,379	5,908	2,689	42.2	Enel
Group net income	(million euro)	5,395	5,293	3,916	102	1.9	Enel

OPERATING DATA

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
Electricity sold	(TWh)	287.7	270.4	196.3	17	6.4	Enel
Italy ⁽¹⁾	(TWh)	127.4	137.2	142.4	-9.8	-7.1	Enel
Abroad	(TWh)	160.3	133.2	53.9	27.1	20.4	Enel
Gas sold	(billion m³)	8.6	8.2	5.5	0.4	5.2	Enel
Italy	(billion m³)	5.2	5.7	4.9	-0.5	-8.4	Enel
Endesa	(billion m³)	3.4	2.5	0.6	0.9	36.0	Enel
EU3 End customers: energy distribution	(,000)	58,515	49,807	48,616	8,708	17.5	Enel
Italy	(,000)	31,319	31,128	30,715	190	0.6	Enel
Abroad	(,000)	27,196	18,679	17,901	8,517	45.6	Enel
EU3 End customers: energy sales	(,000)	56,999	49,031	-	7,968	16.3	Enel
Italy	(,000)	29,723	30,233	-	-510	-1.7	Enel
- regulated market (averages)	(,000)	27,187	28,419	-	-1,233	-4.3	Enel
- free market (averages)	(,000)	2,537	1,814	-	723	39.9	Enel
Abroad	(,000)	27,276	18,798	-	8,478	45.1	Enel
- regulated market (averages)	(,000)	15,563	17,780	-	-2,217	-12.5	Enel
- free market (averages)	(,000)	11,712	1,018	-	10,694	1,050.4	Enel
EU2 Electricity produced	(TWh)	267.8	253.2	153.5	14.6	5.8	Enel
Production Italy	(TWh)	84.0	96.3	94.2	-12.3	-12.8	Enel
Production abroad	(TWh)	183.8	156.9	59.3	26.9	17.1	Enel
EU1 Installed power	(MW)	95,326	82,510	75,523	12,816	15.5	Enel
Installed power Italy	(MW)	40,420	40,323	40,396	97	0.2	Enel
Installed power abroad	(MW)	54,906	42,187	35,127	12,719	30.1	Enel

(1) Excluding sales to resellers.

INDIRECT ECONOMIC IMPACTS

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
EC8 SOCIAL SPENDING ⁽¹⁾							
Donations	(million euro)	47.0	31.3	7.3	15.7	50.3	Enel
Investment in communities	(million euro)	50.9	24.4	18.3	26.6	108.9	Enel
Commercial initiatives with social impact	(million euro)	11.1	11.0	7.8	0.1	0.7	Enel
Socially sustainable business initiatives	(million euro)	0.4	0.1	0.2	0.4	591.7	Enel
Total (expense + investment)	(million euro)	109.5	66.8	33.6	42.7	64.0	Enel

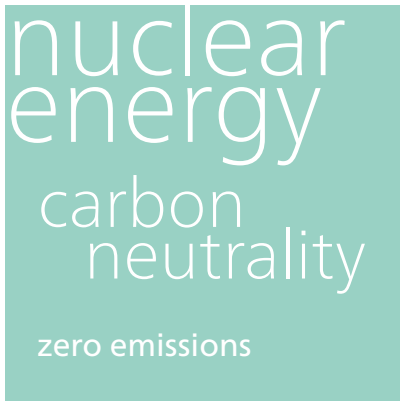
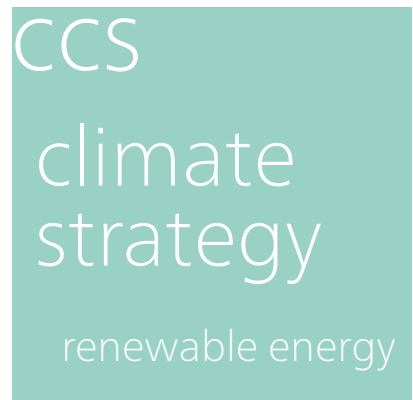
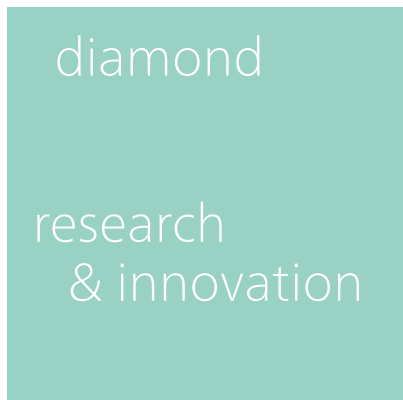
(1) The 2007 figure includes Italy, Slovakia, Enel Latin America, and Romania, the 2008 only Italy, and the 2009 Italy, Endesa, Slovakia, and Bulgaria.

INVESTMENT

KPI	UM				%	Boundary	
		2009	2008	2007	2009-2008	2009-2008	
Investment ⁽¹⁾							
Investment	(million euro)	6,824.8	6,502.0	4,929.0	322.8	5.0	Enel
Valle d'Aosta	(million euro)	11.3	13.0	10.6	-1.7	-12.7	Enel
Piemonte	(million euro)	123.7	147.8	157.7	-24.1	-16.3	Enel
Lombardy	(million euro)	207.2	241.1	305.5	-33.9	-14.1	Enel
Trentino Alto Adige	(million euro)	12.3	10.0	11.7	2.3	23.3	Enel
Veneto	(million euro)	163.5	204.6	218.8	-41.2	-20.1	Enel
Friuli Venezia Giulia	(million euro)	15.7	20.7	30.1	-5.0	-24.3	Enel
Liguria	(million euro)	58.2	69.9	59.9	-11.6	-16.7	Enel
Emilia Romagna	(million euro)	102.9	127.2	124.2	-24.3	-19.1	Enel
Tuscany	(million euro)	251.0	233.4	251.6	17.6	7.5	Enel
Marche	(million euro)	26.2	40.7	41.3	-14.5	-35.6	Enel
Umbria	(million euro)	20.5	26.7	31.1	-6.1	-23.0	Enel
Lazio	(million euro)	736.3	963.8	908.3	-227.5	-23.6	Enel
Abruzzo	(million euro)	39.1	39.2	46.0	0.0	-0.1	Enel
Molise	(million euro)	17.3	38.9	50.5	-21.6	-55.5	Enel
Campania	(million euro)	108.0	113.9	135.7	-5.9	-5.2	Enel
Apulia	(million euro)	178.2	151.8	181.6	26.4	17.4	Enel
Basilicata	(million euro)	23.6	30.4	28.2	-6.9	-22.6	Enel
Calabria	(million euro)	53.1	56.3	62.1	-3.2	-5.6	Enel
Sicily	(million euro)	158.2	174.5	176.9	-16.4	-9.4	Enel
Sardinia	(million euro)	95.6	137.2	107.7	-41.6	-30.3	Enel
Total Italy	(million euro)	2,401.9	2,841.1	2,939.4	-439.2	-15.5	Enel
Spain	(million euro)	146.0	192.9	480.0	-46.8	-24.3	Enel
Slovakia	(million euro)	331.0	176.8	131.9	154.2	87.2	Enel
Eastern Europe + France + Greece	(million euro)	494.6	346.3	206.3	148.3	42.8	Enel
Russia	(million euro)	373.6	223.3	2.7	150.4	67.3	Enel
North America ⁽²⁾	(million euro)	-7.6	289.5	264.0	-297.1	-102.6	Enel
South America	(million euro)	107.8	27.2	12.6	80.6	295.8	Enel
Endesa	(million euro)	2,962.2	2,382.4	885.8	579.8	24.3	Enel
Total Abroad	(million euro)	4,407.6	3,638.3	1,983.4	769.2	21.1	Enel
Adjustments	(million euro)	15.3	22.6	6.2	-7.3	-32.1	Enel
Weight of investment abroad	(%)	64.6	56.0	40.2	8.6	15.4	Enel

(1) Investment in 2008 has been reclassified, excluding "Discontinuing Operations", amounting to 895 million euro (Italy Rete Gas 116 million euro, Viesgo 321 million euro, Endesa Europa 458 million euro), in line with what was reported in 2009.

(2) Enel North America's investment is recorded net of grants by the U.S. government for the construction of plants using renewable energy.



Climate strategy

Climate change is a global challenge to which Governments, companies and citizens are called to respond within the scope of their respective duties. Aware of its responsibilities, Enel is engaged in the fight against climate change. Indeed, Enel believes that, by improving its environmental performance, it can both safeguard the Earth's equilibria and create corporate value.

In March 2009, Enel's CEO was among the 60 leaders of European power companies who, upon the initiative of Eurelectric, committed to achieving a carbon-neutral European power sector by 2050. This ambitious commitment will translate not only into a sharp increase of zero-emission power generation (from renewable and nuclear sources), but also into a radical change in consumption patterns (e.g. energy efficiency and more electricity in transport).

Among the crucial factors in moving towards the new scenario without sudden shocks in the economic system: fast deployment of Carbon Capture & Storage (CCS) technologies and emission credits from international "offset" mechanisms (e.g. the Kyoto Protocol Clean Development Mechanism - CDM).

Enel's strategy rests upon five pillars covering cover all the main elements of carbon neutrality:

- > **use of the best available technologies:** Enel's thermal generating mix is progressively evolving towards 100% high-efficiency and thus low-emission power plants;
- > **deployment of zero-emission sources, e.g. renewable and nuclear:** Enel is consolidating its long-standing leadership in renewables through a dedicated company - Enel Green Power - and plans to gradually increase the nuclear share of its generating mix;
- > **energy efficiency:** Enel plans to improve the efficiency of its grids and take end-use efficiency initiatives relying, among others, on its energy service companies;
- > **research & innovation:** Enel allocated about € 1 billion in the 2010-2014 period to CCS demonstration projects, development of innovative solar technologies and of *Smart Grids* and dissemination of power-driven mobility;
- > **global commitment to curbing CO₂ emissions:** dissemination of projects and best practices in East-European and developing Countries, resorting, among others, to the Kyoto Protocol flexible mechanisms (Clean Development Mechanism – CDM – and Joint Implementation – JI).

Enel is pursuing a dialogue with decision-makers to promote the adoption of immediate and clear public policies and of a long-term stable regulatory framework, which may favor consistent choices by the industrial sector. It is preferable to move away from command-and-control measures, based on emission standards for each installation, in favor of market mechanisms, which may give a CO₂ price signal, encouraging emission reductions and optimizing resources to the benefit of companies and consumers. The Kyoto Protocol and the European Emission Trading Scheme (EU-ETS) took the first steps in this direction. However, the current reference framework presents considerable uncertainties in the long term that the December 2009 Copenhagen Conference did not solve.

Enel feels that sustainable companies' climate strategies may benefit from an international agreement hinged on the following principles:

- 1. Global approach:** mechanisms should be put in place to prompt all the Countries to take a commitment within the scope of their capabilities and legitimate development prospects.
- 2. Reasonable and achievable long-term targets:** investors in energy and other sectors should have a clear and realistic view of actions to be undertaken.
- 3. Extension of the CO₂ market under clear and firm rules:** this would generate the liquidity and long-term price signals that energy-sector operators need to make massive investments on the transition towards a low-emission economy.
- 4. Support to development of technologies:** the public sector should provide financial resources to foster fast development of advanced technological solutions jointly with the private sector, avoiding the risk that companies might suffer from the "first-mover disadvantage".
- 5. Direct involvement of the private sector:** administrative procedures should be streamlined to increase the involvement of the private sector, which demonstrated to be the main player of emission reduction projects in Developing Countries; for instance, private-sector Clean Development Mechanism initiatives account for 85% of the CO₂ emission reductions in Asia and Latin America.

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Public climate-change policies should also take into account the distinctive features of the various sectors of action. For instance, in the sector of renewables, authorization procedures should be simplified, while construction of power plants and their effective and secure integration into the power grid should be encouraged through straightforward and predictable procedures, which might provide security to investors.

Target:
Research & Innovation



Innovation in the energy sector is now the focus of worldwide attention, as it is one of the levers for responding to the growing global energy demand in sustainable ways.

The challenge in the energy sector is particularly complex and the goal is to reconcile the need for sufficient energy supplies with environmental sustainability at reasonable costs.

Winning this challenge requires a global strategy with an integrated and comprehensive approach. From a geopolitical standpoint, all the countries and all the industrial sectors involved should take a strong commitment. From a technological standpoint, there is no single "solution" but multiple solutions in synergy with one another: research & innovation, diversification of supplies, energy efficiency and balanced generating mix are the building blocks of our energy future.

It is thus fundamental to intensify and promote energy research & innovation towards design and development of systems which may produce the energy needed to cover the country's requirements, reducing its costs and safeguarding the environment.

Enel is directly committed to responding to this challenge through its Engineering & Innovation Division.

Engineering & Innovation at Enel

Enel's Engineering & Innovation is the company which manages the Group's engineering processes for development and construction of power plants, as well as activities of technological research and scouting, development and leverage of innovation opportunities, namely initiatives of high environmental value. It is also the Division which is consolidating know-how in order to develop and disseminate nuclear skills and reach levels of excellence in the new technologies. Thanks to the strong synergy between its engineering and research & innovation activities, the Enel Group may count on the development of innovative technologies and on their "immediate" demonstration, by setting up pilot sites and demonstration facilities for the concepts developed and tested in its research laboratories. This raises the Group's competitiveness and technological and environmental leadership.

The Division employs 1,133 people, 211 of whom are assigned to Innovation & Research (Research & Development Policies, Innovation & Environment, Research). The Division has a structured and integrated process to manage innovation and produce a Technological Innovation Plan which is complementary to the Group's Business Plan. Thanks to important cooperation relations with national and international agencies, research centers and universities, the Research & Development Policies Area monitors and analyses emerging energy technologies so as to single out the most strategic areas in the medium and long term.

In line with the Group's guidelines and in synergy with the other Divisions and the Research Technical Area, the Division's long- and medium-term strategic vision is translated into research programs, which are coordinated by Innovation & Environment and incorporated into the Technological Innovation Plan.

Furthermore, Innovation & Environment coordinates and organizes innovative projects of high environmental value, leveraging the areas of technological excellence that are typical of the Enel Group.

The Research Technical Area, supported by its specialists, by the Pisa, Brindisi and Catania research centers and by the Leghorn and Sesta experimental facilities, implements the research projects included in the Technological Innovation Plan. The Research organization ensures continuous improvement of knowledge and carries out innovation and research activities (theoretical, experimental, modeling) on all of the Group's strategic themes, including: fuels, combustion systems, emission and waste treatment systems, innovative generating systems, diagnostics and automation, renewables, distributed generation, smart grids etc.

Integration with Endesa

Integration between Enel and Endesa in research & development activities enhances the value and maximizes the results of innovation processes.

The analysis of Enel's and Endesa's research portfolios and innovation management activities made it possible to:

- > exchange data on ongoing projects, initiate the first joint projects and streamline the portfolio in order to draw up a single integrated Technological Innovation Plan;
- > put in place a new integrated innovation structure so as to:
 - agree on a long-term strategic vision and ensure that the resources to be allocated to new projects are adequate (via a Coordination Committee);
 - share technological know-how (via Technical Specialist Groups);
 - monitor the development and implementation of the Technological Innovation Plan.

Research and innovation in 2009

In 2009, as part of its Technological Innovation Plan (650 million euro in the 2009-2013 period), Enel conducted activities of development and demonstration of innovative technologies worth about 86 million euro. In its research expenditure, fossil-fired generation (focused on CCS, hydrogen, emission abatement, higher efficiency of power plants) accounted for about 46%, renewables (focused on photovoltaic and thermodynamic solar, geothermal, wind and biomass energy) for 50%, energy efficiency, power-driven mobility and development of smart grids for 4%.

Main activities and results

Zero-emission thermal power generation

To cover the expected strong growth of global power demand, conventional energy sources (e.g. coal or gas) will continue to play a fundamental role in power generation in the coming decades. Therefore, generation from these sources should become environmentally sustainable. The best available technologies already reduce emissions of pollutants (sulfur hydroxide, nitrogen oxides and particulates) well below legislative limits. However, efforts should be concentrated on cutting CO₂, which is not a pollutant but contributes to increasing greenhouse gases in the atmosphere. Carbon Capture & Storage (CCS) is the key technology which permits to generate electricity without CO₂ emissions from such sources as coal, a fuel which is necessary to ensure a balanced generating mix. As CCS has not yet reached commercial maturity, research efforts should be centered on industrial-scale demonstration of currently available technologies (e.g. post-combustion, coal gasification or oxy-combustion) and improvement of their performance (e.g. in terms of energy penalizations).

Carbon Capture & Storage (CCS)

Enel is in the forefront in the testing of technologies for carbon capture from flue gases of coal-fired power plants (post-combustion capture), innovative oxy-combustion and fossil fuel gasification (pre-combustion capture), as well as of carbon storage solutions. Enel's main focus is on post-combustion capture through a project of construction of a CCS demonstration facility in the power plant of Porto Tolle (Rovigo). The project is intended not only to capture CO₂ from the flue gases of the plant, but also to compress, transport and store it into a saline aquifer. [The demonstration facility of Porto Tolle](#) is one of the most advanced projects of pre-commercial demonstration of CCS in the world and among those funded under the European Energy Plan for Recovery (EEPR) of the European Union (funding of initial construction work – 100 million euro). This facility will be preceded by a pilot-scale carbon capture one to be built in Brindisi.

The following are Enel's main activities by technology:

> Post-combustion carbon capture

In 2009, construction of a pilot facility in the Federico II power plant (Brindisi) started in parallel with a laboratory study on optimized selection of sorbents. The work is at a very advanced stage, as the commissioning of the facility is scheduled in March 2010. This facility, one of the first of the size in Europe and in the world, can treat 10,000 Nm³/h of flue gases to separate 15-20,000 t/yr of CO₂. It will optimize the capture process, strengthening Enel's know-how in view of the construction of the industrial-scale demonstration facility (about 250 MW) at Porto Tolle. The facility, which was included in the list of the most mature and promising projects at EU level, will become operational at the end of 2015.

> Coal oxy-combustion

Enel's commitment to slashing CO₂ is not confined to post-combustion but strongly extends to experimental research on oxy-combustion. The experimental facility of Leghorn was upgraded to test and assess the feasibility of combustion in oxygen at atmospheric pressure. Combustion in pressurized oxygen, a very promising technology to improve the overall efficiency of plants equipped with CCS systems, is being tested at the ITEA experimental facility of Gioia del Colle.

> Pre-combustion carbon capture

Pre-combustion carbon capture uses the fossil fuel gasification technology. Enel concentrated efforts on the development of systems using the hydrogen produced by the separation process. In 2009, Enel completed the construction and put into service its hydrogen demonstration power plant of Fusina (Venice). The 16-MW plant represents one of Enel's first major achievements. The project was supported by the Veneto Region and the Environment Ministry within the framework of the "Hydrogen Park" consortium. Hydrogen Park is a hydrogen district created in Porto Marghera to exploit the resources, opportunities and technical scientific know-how historically existing in the area. The plant may be fueled with pure hydrogen (from the Marghera petrochemical hub) or with variable proportions of hydrogen and methane. It is the first example of the type in the world. The primary goal of the research program is to develop an industrial-scale hydrogen burner with very low NO_x emissions.

> Geological storage of carbon

To ensure the viability of an industrial-scale concept for reducing CO₂ emissions, Enel's Research is engaged in all the rings of the CCS value chain, down to final storage. To this end, Enel made preliminary estimations of the potential of geological storage of carbon dioxide in the off-shore areas of both the upper Lazio and the upper and lower Adriatic and intensified studies to identify an optimum site for storage of the carbon to be separated from the flue gases of the Porto Tolle power plant. In its Brindisi laboratory, Enel is also testing pilot-scale solutions for biological carbon sequestration through microalgal systems.

Holding down emissions and waste

Enel went on with its activities of development of emission control technologies, in which it has a long and significant experience. In particular:

- > for mercury, Enel conducted tests in the pilot facility of La Spezia and initiated tests on a process of electro-catalytic oxidation in a small-scale facility in Leghorn and lab tests on mercury absorption in a desulfurizer system (DeSOx);
- > Enel started a study to develop an integrated system for assessing the contribution of coal-fired power plants to atmospheric particulates in neighboring areas;
- > to improve the environmental performance of its geothermal power plants, Enel successfully completed the qualification of its process of hydrochloric acid abatement in superheated steam via dry sodium-bicarbonate injection;

- > a project was launched to enhance the environmental and technical value of by-products from clean coal combustion by fully reusing them as building materials.

Enhanced efficiency of coal-fired power plants

Enel actively participates in international projects for the study of optimized components for high-efficiency coal power plants. In a few years, thanks to the development of technologies increasing both operating temperatures (700 °C) and pressures, these plants will have an efficiency of more than 50%. Moreover, Enel is assessing the feasibility of a pilot installation for testing innovative materials at 700°C (nickel alloys), to be integrated into an existing coal plant. Enhanced efficiency of coal-fired power plants is also a crucial enabling factor in the development of CCS technologies.

Expert systems for Gas-Turbine and coal-fired power plants

Enel continued its efforts to consolidate, update and extend its "Equipment Diagnostic System" for advanced diagnostics of the main equipment of thermal power plants. In particular, Enel:

- > defined new rules for already monitored equipment and new equipment/plant systems (capacitors, crystallizers), which were identified with the support of experienced plant personnel;
- > extended the expert system for diagnostics of the main equipment to the new power plant of Torrevaldaliga Nord (Civitavecchia, Rome);
- > assessed the application of innovative sensor systems to minor components (pumps, engines), often not equipped with sensors but operation-critical.

Generation from renewables

Enel's sustainable development strategy in the energy sector is based on strong growth of electricity generation from renewables (RES). Some forms of generation from RES (e.g. photovoltaic solar) have already reached maturity but their high cost (and low efficiency) limits their large-scale utilization. Other forms are still being developed. Research is focused on improving existing technologies in order to lower their costs and increase their efficiency and on developing new generation concepts. Enel is committed to **photovoltaic solar power** generation (major challenges: development of thin films, solar concentration and new and cheaper alternatives to silicon), **thermodynamic solar power** generation (development of innovative plant systems, e.g. integrated energy storage to produce electricity also at night-time or direct generation of steam or innovative components, such as the Fresnel mirrors), **wind power** generation (development of off-shore wind power installations, which will be larger and

(1) A process of co-firing of biomass and fossil fuels is "Carbon-Negative" when the amount of non-emitted CO₂ (permanently sequestered via CCS) is higher than the one that would be emitted by the fossil fuel alone, if it were burnt under standard conditions. The end result is sequestration of the CO₂ which was originally in the atmosphere and enhanced environmental sustainability of the plants which use this process.

exploit more intense and more constant winds, or of systems increasing the generating capability of on-shore wind power installations), [use of biomass](#) (as a fuel in conventional power plants – this use, coupled with CCS, may make the plant *carbon negative* ⁽¹⁾ – or in gasification plants) and to other technologies, such [innovative geothermal power](#) (harnessing of low-enthalpy geothermal sources or sources at relatively low temperatures, or Enhanced Geothermal Systems to generate energy from hot dry rocks).

Some of these sources, e.g. wind and photovoltaic solar, are - by their nature - intermittent. Therefore, to optimize the modulation of their power generation, they should be coupled with storage systems. The storage systems that are now available must be optimized to enhance their efficiency and decrease their costs. New forms of electrochemical storage or alternative systems, e.g. compressed-air storage, will be needed and strategies of utilization of these systems should be defined in order to maximize their benefits to the grid.

There are also new areas where Enel's Research is beginning to work: [ocean energy](#), chiefly waves, currents and tides with interesting development prospects at worldwide level (although not particularly favorable in the Mediterranean basin) and demonstration of low-cost prototypes for electricity supply and storage systems in remote areas.

Enel is working in particular on the following projects.

Thermodynamic solar power generation

Construction work continued (in the final stage at the start of 2010) as part of the "[Archimedes Project](#)": innovative thermodynamic solar demonstration facility (5 MW) with linear parabolic collectors (ENEA technology), to be coupled with the existing combined-cycle power plant of Priolo Gargallo (Siracusa). This leading-edge technology (first demonstration facility in the world) will increase the efficiency and generating capability of the plant by exploiting the property of molten salts to reach temperatures of over 500 °C; the facility will go into operation in May 2010.

Innovative photovoltaic solar power generation

In Catania, development of an important [solar laboratory](#) was completed. With advanced equipment, the laboratory can test the performance of innovative photovoltaic systems and develop new concepts with higher conversion efficiencies and reasonable costs. The laboratory will play a fundamental role in development and pre-industrialization of advanced photovoltaic technologies, which may ensure the expansion and consolidation of latest-generation thin-film photovoltaic arrays.

Innovative geothermal power generation

Enel is investigating a high-performance supercritical organic cycle with a view to building [more efficient power installations](#) using low-enthalpy geothermal resources. A 500 kW_e pilot prototype system will be tested at the Leghorn experimental facility.

Biomass and Refuse-Derived Fuel

In this area, Enel's efforts are concentrated on co-firing of Biomass and Refuse-Derived Fuel (RDF) with coal in coal-fired power plants.

Enel started monitoring units 3 and 4 of the Fusina power plant, where biomass (RDF) is co-fired with coal (RDF 5% - coal 95%). This activity (making part of a European project coordinated by Enel) is intended to investigate the behavior of a "conventional" plant when it is fired with biomass fuels for renewable power generation. Furthermore, Enel completed a demonstration project, called "Energy Farm", which is aimed at demonstrating both consolidated and innovative technologies for conversion of biomass of different nature into electrical and thermal energy and for production of biofuels.

Wind power generation

Systems are being developed for short-term prediction of Enel's power generation (when and how much) in wind facilities so as to facilitate the management of flows injected into the power grid. Additionally, a research project was launched in 2009 to characterize small-scale wind turbines for distributed/household generation: systems are being selected. The test station is scheduled to go into operation within the first half of 2010.

Energy storage

In 2009, Enel paid particular attention to one of the strategic aspects for integration of RES into the power grid, i.e. energy storage. Enel's test facility in Leghorn is dedicated to this theme, which is particularly significant also in terms of issues related to the management of the power grid. In 2010, Enel will begin activities of characterization of batteries (Vanadium, Lithium ions, ZEBRA) and of the most promising technologies for coupling storage systems with renewable power installations and the power grid.

Biodiesel

As part of the greening of power installations on small islands, two new biodiesel engines were installed in the power plant of the Capraia island (capacity: over 1 MW_e).

The "Diamond" solar facility

"Diamond" is a new solar facility designed by Enel's Research and the University of Pisa.

Photovoltaic panels, mounted on the faces of a diamond-shaped structure, generate electricity. The electricity not immediately used is stored in the form of hydrogen and used when there is no sunlight. Hydrogen is stored (via an advanced metal hydride powder technique) into tanks housed inside the structure. The first example of this novel, efficient and suggestive facility, which harmonizes architecture, technology and nature, was inaugurated in the Medicean Villa of Pratolino (Florence) in 2009. The facility supplies night-time and day-time electricity to the lighting system of part of the park and to electric bicycles made available to visitors.

Energy efficiency and distributed generation

With the dissemination of renewable power generation in small, mini- or micro-systems, the present power grid - designed for one-way electricity distribution - will turn into a **Smart Grid** with higher efficiency, which will manage numerous on-site generation systems (especially those using RES), maximize the use of storage systems and interface with advanced end-user management systems and electric vehicle recharging stations.

Distributed generation

Enel went on with its program of development of smart grids as part of the European **ADDRESS** project, of which Enel Distribuzione is project leader and coordinator. The program concerns the creation of a new infrastructure, consisting of new grids, power generation systems, systems modulating power consumption and generation, and loads. In this context, particularly critical scenarios will be modeled and pilot tests will be run in different European countries. The program also embodies two projects: i) **"Enel's Home"**, i.e. development of value added services (efficient management of residential energy users); and ii) **"Navicelli"**, i.e. development and testing of new systems managing heating and power grids in a service-sector/industrial energy district and capable of interacting with the power distribution grid, so as to optimize the local grid and the provision of services to the grid.

Leaf Community

Enel takes part in the **"Leaf Community"**, an experimental project of day-to-day environmental sustainability. The **"Zero CO₂ Home"**, built by the company Loccioni at Angeli di Rosora (Ancona), is the experimental center: six apartments, built with advanced bio-engineering techniques, are supplied by renewable energy (photovoltaic rooftop, thermal solar panels, geothermal heat pump) and equipped with the best consumption reduction systems (e.g. collection and reuse of rainwater).

Enel: i) supplied a hydrogen storage system through which the energy produced by photovoltaic panels is made available even in periods of poor insolation; and ii) installed smart meters with monitors displaying energy usage; the meters will be soon integrated with the domotic systems of the home.

Power-driven mobility

In 2009, by disseminating **"zero-emission" mobility** through electric cars, Enel gave another major contribution to environmental protection.

The project is expected to create an integrated mobility model giving strong impetus to the dissemination of electric vehicles for private and business use and increasing energy end-use efficiency. In 2009, Enel signed a first agreement with Daimler-Mercedes covering a pilot project to be started in 2010. Under the agreement, Smart will provide 100 electric cars, whereas Enel will put in place the recharging infrastructure, with at least 400 posts in customers' garages and parking areas and in strategic points of three sample cities: Rome, Pisa and Milan. The project combines the specific skills and considerable expertise of two large

companies with the goal of contributing to eco-friendly mobility concepts in urban areas. Another important accord was made with Piaggio to support the development of commercial electric vehicles and hybrid scooters. The goal of this project is not only to give strong impetus to power-driven mobility but also to offer innovative services to electric vehicle fleet customers.

Green harbors

This project is expected to offer integrated services to the authorities of large Italian harbors wishing to carry out activities of high environmental value, i.e. reducing emissions of pollutants and greenhouse gases caused by maritime traffic in harbor areas. In particular, Enel entered into an agreement with the Civitavecchia Port Authority concerning a project of electrification of one pier of the Port of Civitavecchia (“Cold ironing”) to supply cruise ships. The project was implemented by Enel’s Research Technical Area.

The highly innovative technology used in the project may yield benefits to the Enel Group in terms of: additional electricity usage with reduced emissions of pollutants and greenhouse gases; additional products and services offered by the individual Divisions of the Group, e.g. transport of people and goods with electric vehicles, high-efficiency artistic lighting, renewable power plants, energy offerings combined with increased energy efficiency in port buildings.

Relations were established with the La Spezia and Venice Port Authorities in view of making agreements for the implementation of the first projects (agreements with Venice and La Spezia signed in February 2010).

RAW MATERIALS

EN1

Raw materials used
by weight or volume.

The raw materials used only include non-renewable materials, i.e. materials which do not regenerate in the short term.

In Enel's production activities, expendables are mainly used in thermal and nuclear power plants and in geothermal drilling activities.

Their uses testify the higher environmental awareness of Enel, which employs them in various treatment processes.

Among the main expendables and their most common uses, it is worth mentioning:

- > **ammonia** (20,567 t): it is used to balance the pH of the thermal-cycle water, but above all as a reagent in the flue gas denitrification process;
- > **limestone** (1,097,191 t): it is the reagent for the flue gas desulfurization process;
- > **lime** (33,374 t): it mainly used in waste water treatment, thanks to its neutralizing and/or flocculating properties;
- > **sulfuric acid, hydrochloric acid** (15,111 t) and **caustic soda** (32,118 t): they are most commonly used in the regeneration of ion-exchange resins and in the clean-up of equipment, but also in waste water treatment. In geothermal activities, soda has various applications, including as an additive in the slurries used in the drilling of geothermal wells.

For the data on the main expendables, the reader is referred to page 183 at the end of this chapter.

Additionally, the following expendables are used in electricity generation:

- > **resins** (504 t): they are used to produce (via ion exchange) the high-purity water needed for the thermal cycle of steam-cycle power plants;
- > **hydrazine** (83.4 t), **carbohydrazide** (296 t) and **hydrogen peroxide** (0.230 t): they are used for deoxygenation and pH balancing of thermal-cycle water and steam;
- > **magnesium oxide** (326 t): it is injected into the flue gas circuits of thermal power plant boilers that are fed with vanadium-containing fuel, in order to prevent corrosion of heat-transfer surfaces due to the indirect action of vanadium;
- > **sodium hypochlorite** (5,827 t), **chlorine dioxide** (0.514 t), **ferrous sulfate** (272 t), **ferrous chloride** (40.1 t) and **trisodium phosphate** (35.6 t): they are occasionally added to the cooling waters of steam-cycle power plants to prevent deposits and fouling or to protect condenser tube surfaces from corrosion.
- > **ferric chloride** (1,239 t) and **polyelectrolyte** (120 t): they are mainly used in waste water treatment, thanks to their neutralizing and/or flocculating properties;
- > **bentonite** (1,739 t): it is clay used as a slurry for the drilling of geothermal wells;
- > **barite** (471 t): it is used in some cases to thicken bentonite slurries, thereby improving their effectiveness when drilling into mechanically unstable rock formations;

- > **geothermal cement** (4,559 t): it is used for joining the steel walls of new wells and for permanent plugging of disused wells.

Finally, expendables such as lubricating oil, dielectric oil, antifouling, defouling, deoxidizing, antifoam, detergent, antifreezing agents, carbon dioxide, bottled hydrogen, etc., totaling 12,519 t, are used in the generality of installations.

Fossil fuels

The near totality of fuels (mostly of fossil origin) are used for thermal generation.

- > The consumption of fuel oil is indicated on the basis of its sulfur content (HS = high: >2.5%; MS = medium: >1.3% and ≤ 2.5%; LS = low: >0.5% and ≤ 1.3%; VLS = very low: ≤ 0.5%).
- > Coal and brown coal are used in power plants usually equipped with flue gas desulfurizers and denitrification systems.
- > Gas-oil, a high-cost fuel, is used on an exceptional basis: i) in single-cycle gas-turbine power plants that are not connected to the natural gas grid (as an emergency fuel in the other gas-turbine power plants); ii) in diesel-engine power plants (supplying some small Italian islands); iii) in start-up of steam-cycle power plants, auxiliary boilers and emergency generating sets.
- > The consumption of natural gas is broken down on the basis of its uses: non-technologically captive (when the use of gas is a corporate choice) and technologically captive (when gas feeds single-cycle, combined-cycle or repowering gas turbines, for which it is the only practicable option).
- > The contribution of non-fossil fuels consists of:
 - refuse-derived fuel (RDF), co-fired with coal;
 - solid biomass, used as main fuel or co-fired with coal;
 - *biodiesel*, used in some gas-turbine units located on small Italian islands;
 - *biogas*, used in some small installations with alternative engines located in Spain.

Natural gas and start-up gas-oil feed the boilers which heat the fuel oil stored in the tanks of fuel oil storage areas (heating fluidifies fuel oil before its transfer to destination).

Small quantities of gas-oil are also used for driving geothermal drilling equipment and in emergency generating sets, which are present in practically all of Enel's installations.

Fuel consumption, obtained from data measured and certified in each installation, is expressed in metric units (thousand tonnes or million cubic meters). To sum the various contributions, use is instead made of the corresponding energy potential (thousand tonnes of oil-equivalent, toe).

The consumption of fossil fuel in the overall Group went up from about 33.1 Mtoe in 2008 to about 37.4 Mtoe in 2009 as a result of full consolidation of Endesa (February 2009) and of the different weight of OGK-5, whose data are reported for the first time for the entire year.

In the overall mix of fuels, the share of coal was up, the one of gas-oil was slightly up and the ones of brown coal, natural gas and fuel oil were down. With respect to 2008, the consumption of oil products with different sulfur content was as follows: high-sulfur oil was close to zero (0.2%); medium-sulfur oil passed from 12% to 10%; low-sulfur oil rose from 59% to 68%; and very low-sulfur oil decreased from 29% to 22%.

Geothermal fluid

Geothermal fluid, in the form of steam at adequate pressure and temperature, is the energy source for geothermal power generation.

If the extracted fluid has thermodynamic properties unsuitable for geothermal generation, it may be employed: i) for the same purpose, in an indirect way, through binary cycles (like in North America, where the geothermal resource consists of a low-salinity brine at a temperature of 135°C to 165°C); or ii) in non-electric uses; in the case of Enel, these uses are now limited to the supply of heat (especially for greenhousing and district heating, but also as process heat in the food industry). For the supply of heat, use is also made of the fluid which becomes available after expansion in Enel's only geothermal unit equipped with an atmospheric-exhaust turbine.

The capability of geothermal fields is chiefly sustained by the reinjection of fluids into geothermal reservoirs. These fluids consist of: i) water entrained by steam and separated from it at the well outlet; ii) steam condensed after its expansion in the turbines; iii) fluid remaining after being used in the primary circuit of binary cycles; and iv) fluid remaining after non-electric uses.

Reinjection and extraction of fluids into/from the deep subsoil does not jeopardize shallow aquifers which, among others, are isolated from the wells by metal pipings, cemented to the soil and between them.

The difference between the total fluid extracted and the fluids reinjected is due to: i) incondensibility of the gases contained in geothermal steam; ii) vaporization and entrainment of condensates in cooling towers (by far the largest contribution); and iii) inevitable losses.

With respect to 2008, the amount of fluid used sharply rose in connection with the opening of the new wells of Stillwater and Salt Wells (Nevada - USA).

Nuclear fuel

Enriched natural uranium, improperly called "fuel", is the energy source for nuclear power generation.

The uranium that is found in nature is practically composed of two isotopes: uranium 238 (about 99.3%) and uranium 235 (0.7% only), as uranium 234 only accounts for 0.056%.

Uranium enrichment – usually obtained by diffusion or centrifugation of a gaseous uranium compound (hexafluoride, UF_6) – raises the U235 content to values lying in the typical range of 3-5%. U235 is the only fissile isotope: when the nucleus of a U235 atom is hit by a slow neutron, it splits up into two smaller nuclei (fission), releasing energy and other (fast) neutrons. These neutrons are slowed down by the water that is contained in light-water reactors and that acts as a "moderator" (the water also carries the heat produced by the fission process), and they hit other nuclei, inducing a chain reaction.

Nuclear fuel may generate an amount of energy 50,000 times higher than the one released upon combustion of an equal mass of fuel oil.

In a nuclear power plant, nuclear fuel management consists of three stages:

- > procurement of fresh fuel;
- > transport of fresh fuel to the power plant site (dry storage containers in the reactor building or fresh fuel pond), preparation of reload, reload, start-up tests, monitoring of operation, unloading from the reactor and storage in the reactor pools (prior to transfer to temporary storage pools);
- > organization of the transfer of the spent fuel to the pools of the temporary

storage facility (where available; the storage facility may be on-site or off-site) or to reprocessing facilities; the spent fuel must be transferred to a temporary storage facility or to reprocessing facilities after a given number of years of operation of the plant, in order to avoid saturation of the storage capacity of reactor pools.

Reload is needed when, after being utilized in the reactor for a few years, the fuel loses its efficiency (i.e. its U235 content diminishes) owing to the fission process. Reload is usually carried out on a 12-, 18- or 24-month basis, but only replacing a fraction of the core. Fuel is loaded into the core, shuffling the remaining assemblies that have not been unloaded so as to optimize fuel utilization and overall efficiency of the plant. The content of fission products (regarded as high-activity and long-lived radioactive waste) in the spent fuel is as little as about 3%. The remaining components are: unused uranium (96%), which is recovered via reprocessing and may be used for generating new fuel; and plutonium (about 1%), which is a by-product arising from nuclear reactions and radioactive decays of U238. The plutonium isotopes (Pu239 and Pu241) are fissile. Plutonium may be recycled as Mixed Oxide fuel (MOX, i.e. $\text{UO}_2 + \text{PuO}_2$). MOX combines normal fuel with fissile substances (plutonium). MOX, consisting of 7-9% plutonium mixed with depleted uranium, is equivalent to uranium oxide fuel enriched to 4.5% in U235.

GREENING OF THE MARITZA EAST 3 POWER PLANT

In 2009, Enel completed its project (started in 2003) of rehabilitation and modernization of the Maritza East 3 thermal power plant. Since February, the power plant has been the first and only plant in South-East Europe to operate in full compliance with the European Union's environmental standards.

The total investment in the plant exceeded 700 million euro, of which 160 allocated to environmental measures. The plant entered into the Group's assets in 2005. Since then, its emissions have been declining. In 2009, its emissions of SO₂ were down by 94%, those of NO_x by 55% and those of particulates by about 80%. Its specific requirements of water (l/kWh) were also down by 15% on 2008.

The Management of Enel Maritza East 3 consolidated its relations with residents and local governments, widening initiatives towards communities and ensuring transparency. It provided information to the public opinion, local governments and other interest groups, placing emphasis on the strategic values, economic, social and environmental benefits of the renovated plant so as to raise awareness of the success of the project. To this end, meetings with and visits by different interest groups, representatives of institutions (Ministries, agencies, etc.), local governments (municipalities and regional governments), national and local media, new generations (more than 400 students visited the plant), etc. were organized.

Enel's representatives presented the outcome of the project to the public at large during conferences and fora (more than 10), as well as meetings with different Associations (e.g. CEIBG, AMCHAM, CCIIB, WEC, APEE, the Board of Trade of Stara Zagora, the energy-sector workers' association), agencies, institutions and members of the Government. The plant's environmental impact is constantly monitored in accordance with the requirements of the Bulgarian legislation (aligned with the European Union's environmental legislation).

The data from the plant's emission and quality monitoring systems are collected under a transparent and traceable procedure and managed in part by local communities and in part by oversight bodies. Local authorities are constantly on the watch for potential sources of impact, especially in terms of waste waters, emissions and waste.

Moreover, the company designed and implemented environmental management systems which include specific operation and maintenance procedures and, in 2009, it obtained the ISO 14001 certification.

In 2010, the company is implementing the procedure for the OHSAS 18001 registration.

EN2

Percentage of materials used that are recycled input materials.

The resources which were recycled in Enel's industrial activities in 2009 were as follows:

- > in wind power generation in **France** and **Greece**, equipment manufacturers withdraw no-longer functioning components, recovering and recycling about 35% of the materials within the process;
- > use of a total of about 55,300 t of Refuse-Derived Fuel in the Fusina power plant (Venice); percentage not available;
- > use of 670 t of recycled paper in **Italy**; over 70% of the purchased boxes or cartons contain recycled paper, i.e. they are manufactured with at least 75% of recycled fibers, whereas the remaining percentage consists of virgin fibers, coming from forests managed in environmentally sustainable ways;
- > **reuse of a total of 160 t of PCB-decontaminated oil (11.5%)** in **Italy** and **Spain**;
- > in the flue gas desulfurization process in **Slovakia**, limestone (13.5%, i.e. about 1.1 million t) is replaced with lime muds from industrial production/manufacturing processes;
- > regeneration and reuse of a total of 187 t of dielectric and lubricating oils in **Russia** (36.6% of the total oils purchased);
- > use of a total of about 403,000 t of wood chips, shavings or saw dust in the thermal power plant of St. Félicien, **Canada**; percentage not available.

For details about this indicator, the reader is referred to the GRI Content Index, on page 10 of the Environmental Report 2009.

ENERGY

EN3

Direct energy consumption by primary energy source.

To assess the improvement of its direct consumption of primary energy, Enel adopts a specific indicator, i.e. the net heat rate of thermal power generation, simple and CHP.

Total consumption of energy from non-renewable sources (by weight or volume) in 2009 was 1,573,441 TJ.

Total consumption of energy from renewable sources (by weight or volume) in 2009 was 8,326 TJ.

The main resources used in the production process are shown in the tables of page 181 at the end of this chapter.

For details about this indicator, the reader is referred to the GRI Content Index on page 10 of the Environmental Report 2009.

EN4

Indirect energy consumption by primary energy source.

In the overall Group, the primary electricity purchased for fuel storage & handling, gas distribution, mining activities, real estate management & services amounted to roughly 163 GWh (587 TJ).

Electricity for power grid operation amounted to 420,555 GWh (1,514 TJ).

For details about this indicator, the reader is referred to the GRI Content Index on page 10 of the Environmental Report 2009.

EN5

Energy saved due to conservation and efficiency improvements.

Enel saved energy and improved efficiency in both the generating mix and distribution lines.

Savings and efficiency in power generation

Activities were carried out in thermal power plants in Italy to reduce the heat rate and improve the generating efficiency.

- > In the La Spezia power plant: the sealing systems of the Ljungström air preheaters were replaced with more modern variable sealing systems; the drum blading of section 3 of the turbine was replaced; a system to adjust the number of revolutions of fans (secondary air and desulfurizer booster) was installed; and the internals of section 3 of the low-pressure turbine were replaced.
- > Conversion of the Civitavecchia power plant (Rome) from oil to coal firing was completed; the project significantly increased the efficiency of the generating units (from 40.6 % to 44.7%).
- > In the geothermal power plant of Farinello, new components in "noble material" were installed in the turbine, increasing the energy efficiency by 5%.

The overall efficiency of the thermal generating mix in 2009 does not reflect

these improvements: owing to contraction of demand, Enel's supply was based on the least burdensome fuel-technology-efficiency combinations, worsening the efficiency as against 2008. **Indeed, the heat rate in thermal power generation passed from 2,186 kcal/kWh in 2008 to 2,258 kcal/kWh in 2009 (up by 72 kcal/kWh, corresponding to about 14,900 TJ, generation remaining equal).**

In **Spain, Endesa's projects** of repowering, technology transfer and efficiency enhanced the efficiency of the thermal and hydro power generating mix, **to such an extent that, in 2009, 2.2 million toe of primary energy (92,109 TJ) were saved.** Ongoing projects will save another 150,000 toe (6,280 TJ/yr).

In the nuclear power plant of Bohunice (**Slovakia**): retrofitted turbines were installed, condensate separators and steam pressure measuring nozzles were replaced and a new type fuel (gadolinium) was introduced to better utilize uranium. Efficiency rose sharply thanks, among others, to renovation of the cooling towers and retrofitting of the main condensers (completed in 2008). These upgrades increased overall efficiency by 0.87%. The net heat rate fell from 11,173 GJ/MWh in 2008 to 10,885 GJ/MWh in 2009. **The primary energy saved was equal to 1,802 TJ.** Capacity was up by 5.95% on 2008 and by 8.54% on 2007.

In **Bulgaria**, efficiency improvement works in the thermal power plant of Maritza East 3 included: i) installation of an automatic system for sampling and measuring the quality and quantity of brown coal before and after storage; with this system, the fuel is adequately selected and the heat rate is optimized; ii) replacement of high-pressure water mist with cold water from the high-pressure heater; iii) installation of steam traps in outlet lines, to eliminate losses and save on the energy required to produce demineralized water for make-up of the closed circuit; and, finally, iv) reliance was made on a new integrated water management system, which saves water and electricity due to the reduced operation (and related consumption) of pumps withdrawing water for industrial uses. **The primary energy saved amounted to 1,943 TJ** (the heat rate passed from 3,011.21 kcal/kWh in 2008 to 2,886.85 kcal/kWh in 2009).

In **Russia**, energy efficiency improved by about 22.42 TJ (6,228 MWh of electricity, i.e. 54,843 TJ of primary energy, considering a heat rate of 2,104 kcal/kWh, i.e. 8.81 kJ/MWh).

In particular, in the Sredneuralskaya power plant: the operation of the feedwater pumps of the district heating cycle was rescheduled, saving about 453,900 kWh (1,634 GJ); the air flow into gas boilers and flue gas lines was kept within the specified technical limits, saving 1,717,800 kWh (6,185 GJ); a new hydraulic clutch was installed in the second stage of the closed-cycle power-driven feedwater pump, saving 2,578,600 kWh (9,283 GJ); drinking water pumps were replaced with lower-capacity ones, saving 299,600 kWh (1,079 GJ). In the Nevinnomysskaya power plant, incandescent lamps were replaced with low-consumption lamps, saving 1,176,000 kWh (4,234 GJ).

The following activities concerned all the installations: personnel awareness, training & education on efficient operation of machinery & equipment in terms of fuel and electricity consumption; reduction of periods of unscheduled start-up of units with respect to previous years; optimization of in-service machinery to

decrease or zero unavailability periods; clean-up of fouling in the turbine tubing to optimize temperature difference and vacuum conditions; finally, identification and elimination of leaks in gas circuit boilers, vacuum system, gas line air intakes and air tubing in generating units.

In the **United States**, a new pneumatically-operated inflatable crest gate was installed on the dam of the Lawrence hydroelectric project. Thanks to better water management, the plant operates more efficiently, producing 16.2 GJ more per year. The gate also facilitates the upstream migration of fish and permits the use of the dam waters for recreational purposes.

In **Panama**, in the Fortuna hydro power plant, the installation of fluorescent lamps and automatic lighting switch-off sensors in common areas saved 4.62 GJ of electricity consumption.

Additionally, all the wind power equipment used in the various countries are of latest generation and among the most efficient available in the market.

Efficiency in electricity distribution

In **Italy**, Enel Distribuzione is engaged in a program of power grid efficiency improvements.

The introduction of new HV/MV and MV/LV substations into the distribution grid rationalizes and optimizes the lower-voltage grid, decreasing its average length, average load and power losses.

Renovation of MV and LV lines is generally based on replacement of existing conductors with conductors having a larger cross section. This reduces power losses, which are proportional to the resistance and square of the current. The renovation works were as follows: i) on MV lines, replacement of old 16-mm² branches or sections of overhead lines with conductors or overhead cables having an electrically larger cross-section; ii) on LV lines, replacement of 16- or 25-mm² bare copper conductors with 35-mm² overhead aluminum cables.

Under the 2010-2012 Development Plan, about 33,000 low-loss MV/LV transformers (with respect to those currently used in the distribution grid) will be installed.

The new transformers

- > reduce losses by an estimated 30% on average vs. present transformers for 24 hrs/day, under no-load conditions;
- > reduce losses by an estimated 10% on average vs. present transformers for about 1,800 hrs/yr under on-load conditions; the loss reduction coefficient takes into account the initially oversized transformer capacity with respect to the load at which they are operated.

Also the modes of operation may hold down grid losses. A carefully planned operating configuration, especially of the MV grid, may significantly decrease the power dissipated in conductors through the Joule effect. The evolved grid monitoring systems, the remote operation of switching points, the sophisticated systems for computing and simulating electrical data on- and off-line that Enel Distribuzione is introducing can support this goal, while satisfying other operating

constrains, which often have a priority nature.

The expected overall yearly savings are equal to 280 TJ.

In **Romania**, Enel Distributie Banat made investments on the grid to increase its efficiency and reduce losses. **In 2009, losses were down by 79.67 TJ.**

Enel Distributie Dobrogea will pursue a similar program in the near future.

Among the solutions adopted: use of LV lines by replacing conventional conductors with twisted ones; increased cross section of MV lines; modernization of satellite substations by introducing low-loss transformers; and, finally, modernization of metering systems. Other activities involve the replacement of acid batteries with more efficient sealed gel batteries.

Enel Muntenia Sud completed the first stage of its grid loss reduction project, which will yield results in the short term. The second stage of the project is still under way.

EN6

Initiatives to provide energy-efficient or renewable energy-based products and services and reductions in energy requirements as a result of these initiatives.

The marketing activity in Italy, Romania and Russia involves offerings which are based on time-of-use bands, encouraging night-time usage. This increases the overall efficiency of the electricity sector, by decreasing waste and environmental impacts.

In **Italy**, "green" offering based on RECS certificates enable the customer to obtain a guarantee of origin and pay a small additional cost to finance further deployment of renewables.

The RECS (Renewable Energy Certificate System) certificates give evidence of the renewable origin of the generated electricity. One RECS certificate is worth 1 MWh of consumption of electricity from renewables.

The Sales Division has launched various initiatives to provide services of energy efficiency or based on renewable energy. The main results were as follows: redemption of about 8 TWh (28,800 TJ) of RECS certificates; in 2008, reduction of yearly usage by customers who subscribed to the "*Enel Rewards You*" program (about 40 GWh, i.e. 144 TJ in 2009); high number of customers who subscribed to the e-bill program (about 190,000) and of residential customers who opted for direct debit payment (about 1.5 million).

To quantify savings and usage by customers who subscribe to green offerings, use is made of data provided by distributors (invoiced usage). All other data come from Enel's information systems (operation data or accounting records). Enel Servizi (which manages buildings, vehicle fleet, Information Communication and Technology and procurement for the companies of the Group operating in Italy and issues policies for service companies operating abroad) put in place many initiatives:

- > reduction of energy consumption in its vehicle fleet;
- > purchase of "special" vehicles (cranes, vehicles with buckets, heavy vehicles, etc.) equipped with Euro5 engines, with obvious eco-efficiency gains;
- > participation in fleet operators panels with common sustainable-mobility goals, e.g. use of hybrid transport vehicles (conventional and power-driven);
- > reduction of personnel mobility by using ICT tools (conference calls, communicator, etc.);
- > arrangements with numerous manufacturers of electric vehicles to promote more efficient and zero-emission mobility practices.

For details, the reader is referred, among others, to the commentary on indicator PR3, on page 307 of this Sustainability Report.

A number of initiatives are already in place under Enel Servizi's ISO 14001 certified environmental management system. Thanks to these initiatives, the buildings managed by the company will significantly save on fuel and electricity. An awareness campaign was planned to disseminate energy-saving practices (e.g. switching off of computers and closing of windows) and remote timer-based devices were installed to switch off lighting, heating and cooling systems.

In line with the Group's policies, Endesa Energía in **Spain** took various initiatives value added services, energy efficiency, development of renewable energy under its "Energy Efficiency Plan". The plan provides for:

- > development of new products: condenser batteries for low-cost power factor correction, variable speed drives which are coupled with motors to reduce their energy consumption; etc.
- > the **"Plan Ilumina"**: services offered to small businesses and offices for redesign of lighting systems **potential savings: up to 80%**;
- > awareness actions to promote smart and efficient electricity usage: broad efficiency advertising campaign, creation of an Internet portal "Twenergy" and use of "YouTube" as a communication tool.

Given the variety of these initiatives, the reduction of energy consumption is hardly quantifiable.

Furthermore, Enel.si and Endesa Energía promote responsible and efficient energy use by offering a number of products:

- > thermal solar installations;
- > photovoltaic solar installations;
- > air conditioning and heat pump systems;
- > radiators with control systems to reduce energy consumption;
- > condensing boilers;
- > condenser batteries for power factor correction (only for business customers);
- > safety cut-off switches with automatic reset;
- > voltage stabilizers.

In **Slovakia**, in December 2009, as part of its "Land and Landscape Projects", Slovenské completed the construction of a 9-kWp photovoltaic installation and the renovation of the power system in the "Tery" chalet. The mountain chalet is used by a hikers' association, which provides free-of-charge and voluntary community and environmental services. Results: generation of 9,000 kWh/yr and displacement of 9 t of CO₂ emissions.

EN7

Initiatives to reduce indirect energy consumption and reductions achieved.

In December 2009, Enel Servizi obtained the ISO 14001 certification for six major buildings in Italy (a property of about 181,000 m² with 5,500 employees). In 2010, the company will extend the certification to all of its real estate assets.

Mobility management policies are implemented as part of the dissemination of management services, as well as of activities to optimize the use of the vehicle fleet (correct management and safe and environmentally-sustainable driving courses).

See also the commentary on indicator EN5 on page 118 of this chapter.

Always in **Italy**, with a view to reducing indirect energy consumption, Enel Servizi launched the following *mobility management* initiatives:

- > purchase of public transport subscriptions, already implemented in some sites (Milan, Rome, Turin and Piedmont Region, Ancona and Province, Genoa) and being implemented in other sites (Palermo and Province, Bologna, Florence and Tuscany Region);
- > purchase of Car and Bike sharing subscriptions, being extended throughout the country;
- > Car Pooling service in Rome (being extended throughout the country) with availability of car parks for its users.

The energy savings from the commuting schemes are quantified on the basis of: commuting practices; average distance from home to work and back; average emission factors of different modes of transport (car, motorcycle, local mass transit, soft mobility).

The energy savings from the subscription initiative were around 5,200 toe in 2009. The computation was made by applying a formula taken from the report "Reducing CO₂ emissions from cars: a study of major car manufacturers", published by Transport & Environment. The formula considers the average consumption of the various modes of transport (multiplied by the number of users), the average distance from home to work and back and the standard emission and oxidation factors of the different fuels.

In **Spain**, Endesa certified its office buildings. In the long term, energy consumption (electricity, fuels for canteens and heating) by these buildings will drop by a maximum of 10%.

In **Slovakia**, Slovenské elektrárne applied an internal procedure (issued by its own personnel), which minimizes travel for duty purposes by using conference calls.

This initiative immediately translated into primary energy (fuels) savings and lower CO₂ emissions.

WATER

EN8

Total water withdrawal by source.

Part of the water for industrial uses is consumed: i) in the flue gas desulfurization process; and ii) for reducing NO_x (lowering of temperatures by injecting hydrogen peroxide into the combustion chamber, in the case of gas-turbine and combined-cycle units).

To decrease water consumption, Enel installed some waste water crystallization and distillate recovery systems.

Part of the water for desulfurization comes from the sea.

Part of the water that is consumed derives from reuse of on-site waste waters from the production/generation cycle or off-site waters purified by municipally-owned companies (Fusina power plant, Venice).

Water for industrial uses is consumed for the internal services of the installation (steam generation, clean-up, etc.), for carrying ash from combustion and for cooling purposes in closed-cycle systems (cooling towers).

Open-cycle cooling water is not considered as consumption as it is returned to the recipient water body (stream, lake, sea, etc.) with the same chemical characteristics and with a slight thermal alteration. The total water recirculated for this purpose amounts to 280,138 million m³ for the overall EnelGroup.

For details about this indicator, the reader is referred to the GRI Content Index on page 10 of the Environmental Report 2009.

EN9

Water sources significantly affected by withdrawal of water.

The water used for hydro power generation does not undergo qualitative changes and may be exploited for multiple uses upstream and downstream of the power plant.

In the case of run-of-river, storage or pumped-storage plants, the water used for hydro power generation crosses the main machinery, the turbine, and is entirely returned to the downstream water body without being altered.

Enel identified all the water bodies that it uses for hydro power generation in the world. Enel's environmental reporting database contains detailed data, which will be posted on a page devoted to the environment on Enel's website (<http://www.enel.it/it-IT/azienda/ambiente/policy/biodiversity>) by June 2010. The database collects all the data of: i) water bodies used for hydro power generation, regardless of withdrawal; ii) water bodies affected by other activities and from which water is withdrawn for cooling; iii) and/or water bodies to which more than 5% of the yearly average discharge and of the impoundment volume is returned.

In some cases, thermal and nuclear power plants may use water resources for open-cycle cooling, i.e. a constant and significant flow from a nearby stream. This flow is entirely returned to the recipient water body without chemical alterations.

Geothermal activities use water resources to a much lesser extent for the preparation of the drilling slurry.

EN10

Percentage and total volume
of water recycled and reused.

In 2009, in the overall Group, the recovery of waste waters after treatment was equal to about 17 million m³ with a percentage of recycled and reused water of roughly 4.5%.

This amount does not include the water recovered by the Fusina power plant (Venice). Indeed, in 2009, for closed-cycle cooling of the plant, use was made of water from the municipal and industrial water treatment system of the local municipally-owned company Vesta; this water totaled about 792,000 m³.

Enel Green Power



In a scenario of high dependence on fossil fuels, renewables represent an environmentally sustainable response even in the long term, as they can help cut down greenhouse gas emissions, develop local and decentralized energy sources, stimulate technology-intensive industries and curb dependence on energy imports. Recognizing the role that these sources may play for a competitive and sustainable future, both international and European institutions have put in place special investment programs and development support instruments.

With its commitment to generating power from renewables and its presence in Europe and the American continent, Enel Green Power established in December 2008 contributes to sustainable development at worldwide level. Its mission is to grow and create value, by significantly increasing its installed capacity, optimizing its technology mix in each country and leveraging the know-how that Enel has always had in this sector.

In 2009, Enel Green Power was the world's leader in the sector with a generation of 18.9 TWh, which covered the consumption of about 7 million households and displaced about 14 million tonnes of CO₂ emissions.

Its installed capacity in wind, solar, geothermal, run-of-river hydro and biomass plants was about 4,800 MW over 500 plants both in service and under construction all over the world.

Enel Green Power's goal is to maintain its leadership not only in environmental but also in economic and social sustainability, by optimizing its technology mix in each Country and taking into account the distinctive features of the areas where it operates. Balanced generation from renewables (wind, photovoltaic solar, geothermal, hydro, biomass) is its strength in an innovative and economically-sustainable growth paradigm.

This adds to transparent relations with local communities, especially in Countries which mostly rely on renewables for their development in the next few years. Enel Green Power's strategic approach, hinged on corporate responsibility, translates into actions in support of the areas where it operates and into cooperation and close relations with its stakeholders for communities' culture, education, health and well-being.

A case in point is Enel Costa Rica. The company, belonging to Enel Green Power, demonstrated that sustainability may originate from "Enel's local communities": through a social management committee, sustainability initiatives are taken jointly with local communities, so that they can become protagonists of their own development and a large supply of natural resources can be made available to an increasing number of people.

Commitment to the environment and to future generations, which is in the DNA of Enel Green Power, together with awareness of its economic and social responsibility, may contribute to a future where reduction of emissions will improve the quality of life of people and electricity will be accessible, affordable and environmentally benign.

Wind power generation

Wind power generation had a boom in the past few years and is estimated to grow constantly at a yearly average rate of about 9% in the next two decades. The capacity installed in Enel Green Power's wind power plants is 1,510 MW.

In Italy, Enel Green Power has an installed capacity of 429 MW. In 2009, it started the construction of as many as 94 MW of wind power plants. After the first Italian wind farm, built at Alta Nurra (Sardinia) in 1984, the company now manages a total 27 wind power plants.

The company's wind power capacity in the world is significant and sharply growing: 439 MW in **Spain**, 123 MW in **Greece**, 68 MW in **France**, 406 MW in **North America** (USA and Canada) and 24 MW in **Latin America**.

The company places particular emphasis on technological innovation, with studies on off-shore plants and reduction of all the impacts that wind farms may have on landscape.

Enel Green Power intends to select high-value projects in countries with the highest growth potential, in order to substantially increase its total installed wind power capacity.

Solar power generation

Solar energy is the most widespread source in absolute terms: available everywhere and in amounts largely exceeding requirements.

Enel has been present in the solar sector, namely in the photovoltaic one, since its first technological and market developments. Enel Green Power, which has inherited Enel's large tradition in this segment, intends to play a key role in the global market in terms of know-how and market development.

In this sense, the company deems it important to establish technological partnerships and develop innovative models, e.g. franchising through Enel.si. In Italy, this model induced a strong development of distributed generation in the retail market and in the commercial markets, thanks to a dense network of franchisees about 500 points distributed all over Italy.

In 2009, Italian in-service photovoltaic solar installations reached a new historical milestone, as they exceeded the threshold of 900 MW.

The latest data of GSE (Gestore dei Servizi Energetici) indicate that 60,971 installations were commissioned under the new feed-in scheme overall capacity 745.61 MW. These installations add to the ones (5,735) commissioned under the old feed-in scheme (164.45 MW). So, our Country has more than 66,700 installations, totaling 910 MW 550% more than the 140 MW of December 2008.

Enel Green Power is very attentive to technological innovation and testing of thermodynamic solar installations.

As part of its “[Archimedes Project](#)”, it is building a 5-MW solar facility, consisting of 576 parabolic mirrors, in Priolo Gargallo (Sicily) (see also the Focus on the Research and Innovation, on page 103 of this document).

Always in Sicily, in its Catania research center, the company is experimenting the [solar concentration](#) technology jointly with Sharp, which has always been among the worldwide leaders in photovoltaic energy. In January 2010, Enel Green Power, Sharp and STMicroelectronics signed an agreement to build the largest photovoltaic panel factory in Italy. The factory will be located in Catania and produce triple-junction thin-film panels.

Enel Green Power and the Japanese company also made an agreement to jointly develop photovoltaic fields.

Hydro power generation

Among renewables, hydraulic energy is the most ancient and most exploited one. Thanks to a long tradition - the first plants lead back to the early 20th century - Enel Green Power manages over 380 mini-hydro installations with an [installed capacity of over 1,510 MW in Italy and of 996 MW in the rest of the world](#).

The countries where Enel Green Power is present with this technology are: Italy, Greece, Spain, USA, Mexico, Guatemala, Costa Rica, Panama, Chile and Brazil. The goal of Enel Green Power is to widen its penetration into high-potential Countries and to select high-value projects in still untapped areas.

Geothermal power generation

Geothermal energy, where available, is an important and still insufficiently harnessed resource for optimizing the generating mix.

With an installed capacity of 742 MW, Enel Green Power is one of the world's leaders in this technology, relying on decade-old skills that it is leveraging for a major world-scale development plan.

Italy is the country where this source was exploited for the first time for industrial uses. The first geothermal power plant in the world was installed in Larderello (Tuscany) in 1913 and now has 500 wells and an output of more than 5 TWh/yr.

In Italy, Enel Green Power has [32 geothermal power plants](#) (capacity about 695 MW), which are located in Tuscany. These plants have an output of over 5 billion kWh/yr.

Enel Green Power has geothermal plants in operation or under construction and is conducting geothermal exploration in Italy, USA, Chile and El Salvador.

Its long experience in the sector also supports its leadership in innovation. In

addition to the direct steam or flash technology, of which Larderello is an example, the company conducts research on low-enthalpy techniques to make a better use of geothermal resources which would otherwise be uneconomical. These techniques include binary cycles, through which lower-temperature resources may be exploited, like in the case of the Stillwater and Salt Walls plants in Nevada (USA).

The company is also active in the testing of hot dry rock techniques.

BIODIVERSITY

Biodiversity is the variety of forms of plant and animal life which are present in the Earth's ecosystems: a universal heritage which belongs to the global community and that the global community has the duty of protecting and conserving. This is not a recent phenomenon, but the result of 3.5 billion years of evolution. It is a kind of insurance policy, which guarantees survival of life on the Earth. Anthropogenic threats to biodiversity are so serious as to require broad-ranging actions.

Fully aware of this - and for the third year in a row - Enel embarked on a number of projects, which are aimed at sustaining biodiversity both nationally and internationally, in the Countries where it operates.

The following are the **main projects in Italy**:

- > protection of the *Caretta caretta* sea turtle (loggerhead turtle) jointly with Legambiente: start of activities to monitor the species and its habitat and to support the recovery center in Apulia;
- > protection of the griffin vulture in Sardinia jointly with Legambiente: identification and implementation of measures to mitigate negative anthropogenic effects on the griffin vulture habitats;
- > protection of the otter jointly with Fareambiente: in the Le Mortine Sanctuary Campania, start of a program to monitor and safeguard the otter habitats e.g. demarcation and fencing of habitat areas, monitoring;
- > conservation of the *Caretta caretta* sea turtle jointly with CTS: at the recovery Center of Brancalione (Calabria), intensification of recovery and care of wounded sea turtles;
- > protection of storks' nests on the towers of the electricity distribution grid: to protect the life of the storks, Enel installed electro-welded wire mesh and wrapped the overhead conductors of the line with a double layer of insulating tape.

Abroad:

- > protection of streams and of the salmon trout in the High Tatra Mountains National Park, **Slovakia**;
- > conservation of the griffin vulture in **Bulgaria**, jointly with the Central Balkan National Park and with the UK Birds of Prey Protection Society (NGO);
- > in **Romania**, in the area served by Enel Dobrogea's grid (Danube delta area), protection of storks by mounting circular supports on line towers to favor their nesting;
- > in **Guatemala**, maintenance of transmission line corridors overall surface: about 6 hectares.

Among **Endesa's biodiversity projects in 2009**, it is worth mentioning:

- > in October 2004, agreement between Fundación Endesa and Ibercaja on cooperation with different Municipalities of the Aragon Pyrenees for clean-up of and water temperature control in 11 Pyrenean lakes. In 2009, works in the Pyrenean lakes of Ip, Respomuso, Campoplano, Bachimaña, Brazatos and Llauset were completed. This activity of environmental restoration helps preserves landscape and local biodiversity, favoring the development of

- tourism and of eco-tourism and disseminating social-environmental values in the areas of the Pyrenean lakes;
- > participation in the project of Fundación Huinay in **Chile**; in April 2004, the project competed for the European Awards for the Environment, organized by the European Commission, as a sustainable development and conservation project. The Fundación Huinay scientific center completed 19 research projects in 2009, including the publication of the book: "Marine Benthic Fauna of Chilean Patagonia", one of the last "Antarctic forests" of the Planet. The book summarizes 10 years of research and describes 473 species, of which 49 are newly discovered living species.

EN11

Location and size of land owned, leased, managed in (or adjacent) to protected areas and areas of high biodiversity values outside protected areas.

Detailed data on Enel's sites which are located in or adjacent to national and regional protected areas, sites of Community importance, special protection areas, sanctuaries, etc. are collected in the environmental reporting database of Enel and will be posted on its website (<http://www.enel.com/it-IT/sustainability/environment/policy/biodiversity>) by June 2010.

For details, the reader is referred to the commentary on indicator EU13 on page 136 of this chapter.

EN12

Description of significant impacts of activities, products and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.

In all the countries where it operates, the Group has sites and installations which are located in or adjacent to protected areas (National Parks, Sites of Community importance, WWF Sanctuaries, etc.). Enel's activities respect the natural environment and the companies of the Group monitor ecosystems under arrangements with land management agencies and organizations (local, national and international). The list of these protected areas will be published on Enel's website (<http://www.enel.com/it-IT/sustainability/environment/policy/biodiversity>) by June 2010.

Certified environmental management systems are fairly widespread within the Group and will be extended to all of its assets. Effects on biodiversity are among the most significant aspects of initial environmental analyses. Environmental impact studies for new installations include in-depth investigations on landscape, natural environment and biodiversity conservation.

For details, the reader is referred to the commentary on indicator EU13 on page 136 of this chapter.

Electricity generation and distribution activities may have impacts on the biodiversity of protected areas or areas of high biodiversity value outside protected areas.

The following are the most relevant actions of biodiversity conservation.

Impacts of electricity generation on biodiversity

Impoundments (especially for hydro power generation) establish a new equilibrium in the habitats of the diverted streams. Water losses and releases from dams make the flow of ephemeral streams (in particular, in the sections of the streams extending from the dam to the point of release) more constant. Therefore, the point of water release, which lies further downstream, will hardly dry up. This aspect and the role of impoundments as minor wetlands, which are home to avian species, represent a major environmental enhancement.

In hydro power generation activities, dams and water intakes comply with the Italian legislation on the Minimum in-Stream Flow, which helps conserve the aquatic ecosystems downstream of the plants. Any changes in water releases altering the Minimum in-Stream Flow may have effects on habitats and biodiversity, interrupting the migratory flows of the fish fauna.

Dam emptying operations should be carefully supervised. As they temporarily change the flow of the streams involved, they may have repercussions on the fluvial ecosystem and on the biological equilibrium ensured by the minimum in-stream flow, disturbing migratory flows and changing the composition of the fish fauna.

The activities of planning, design and siting of wind power installations always take into account the need for ensuring migratory flows, i.e. corridors for the avian fauna. The reproduction and migration of birds might be disturbed by the installations, if their nesting areas were not protected. Therefore, the siting of wind power installations takes into consideration the need for providing adequate migration corridors to the avian fauna.

In thermal power generation, biomonitoring surveys conducted in various sites of different Countries indicate that the impacts (thermal and physical changes) of water releases from open-cycle cooling circuits and cooling towers are negligible. The return of cooling waters to the recipient water bodies might cause a thermal disturbance near the release structure. Additionally, in some periods of the year, the water is chlorinated to control marine *fouling*. Consequently, the released waters may contain residual active chlorine.

Waters are carefully monitored. The surveys span multiple years, during which the possible impact of water releases on the marine biofauna is investigated. Reports on the activities carried out so far show that releases from the plant do not induce significant and permanent changes in the surrounding marine environment.

Additionally, temperature increases do not cause eutrophication, even in the most confined parts of water bodies with less natural water mixing; the generated thermal gradient favors water circulation, by accelerating mixing.

For instance, in **Italy**:

- > in the lagoonal wetland of "Pialassa Baiona", near the Porto Corsini power plant, ecosystems are biomonitoring to check the status of the area and the possible impacts of thermal releases from cooling waters. The results of the biomonitoring surveys indicate the good status of the area and no effects;
- > in river diverted for hydro power generation by the Pietrafitta plant, a minimum flow is maintained in order to safeguard the fish fauna;
- > the cooling water from the Livorno power plant is conveyed by means of gates

- towards the “Medicean Channels” of the city, to support the natural circulation of waters, permit their adequate oxygenation, avoid stagnation and oxygen starvation. The positive impact of these releases extends to the entire year, but is much more marked in summer;
- > sea-based and land-based biomonitoring surveys were conducted near the Termini Imerese power plant site. Their results showed no impacts.

In **Bulgaria**, Lake Rozov Kladenetz, from which water is abstracted for cooling the Maritza East 3 power plant, is a protected nesting area for wild birds. Also the part of the river (15 km) extending from the channel where waste waters are released to the lake, is protected to conserve natural habitats, flora and fauna (overall surface: 141.54 ha). This area is a major biocorridor which interconnects Mount Sakar and the Maritza and Sazliyka rivers.

Enel's efforts for protecting the basin are based on low consumption of water for cooling and other industrial uses.

Water consumption was down by 13.4% on 2008. The Maritza East 3 power plant is equipped with systems for chemical and biological purification of waste waters before releasing them into the Sokolitzka river, one of the inlet streams of Lake Rozov Kladenetz.

Impacts on biodiversity due to electricity distribution

In electricity distribution, MV lines cause above all problems of birds' electrocution and, to a lesser extent, collision. HV lines are mainly responsible for birds' collisions with conductors, because the spacing of conductors is such that no electrocution may occur. So, the solution of the problem of electrocution due to MV lines has often priority over the problem of collision.

In **Italy**, studies on MV lines are focused on conductor supports (structure, materials, components and geometry), whereas those on HV lines concern power line routes and bird diverters.

For details, the reader is referred to the commentary on indicator EN15 on page 143 of this chapter.

EU13

Biodiversity of offset habitats compared to the biodiversity of the affected areas

Near hydro power plants, but also many thermal power plants, periodical environmental offset activities are carried out, e.g. “restocking” of various species of local fish, including those included in the IUCN Red List (trout, small trout, eel, salmonoids, cyprinids, etc.).

Aware of these impacts, Enel undertook biodiversity conservation and development efforts.

Impacts on biodiversity due to electricity generation

In **Italy**, near the Leri Cavour thermal power plant, an about 150 m² hill was created by using spoil from excavations upon construction of the plant. The hill was revegetated and planted with autochthonous species, e.g. poplar, beech, horse chestnut, acacia, plane tree, ash and photinia. Originally, the area where the plant is located had rice crops and wildland. Now, the area shows hills planted with tall trees, which reduce the visual impact of the buildings of the plant. The local ecosystem benefited (increased plant and animal species) from revegetation of the previous cropland or wildland.

> The thermal power plant of La Casella based on yearly requests by the Province of Piacenza restocked the Po river with 5,000 carps and 1,500 pikes as an environmental offset. This obligation is specified in the Po River “Water Withdrawal Specifications”.

> Near the thermal power plant of Civitavecchia, a *Poseidonia oceanica* prairie (10 m²) was planted on the sea floor as an environmental offset measure.

> Near the hydro power plants of Amendola, Arci and Carassai, an alternative route to the fish ladder was created.

Since 2007, Slovenské elektrárne has made cooperation arrangements with the national parks of **Slovakia** (including the High Tatras National Park) as part of its biodiversity support strategy. The Alpine chamois was restocked in its natural habitat, the marmot was reintroduced in areas that it had deserted and the peregrine falcon was monitored and protected. In 2009, activities were concentrated on salmon trout restocking and habitat restoration, as well as on clean-up of streams through financial contributions and voluntary actions by employees. In 2010, the company will go on with its strategy to stabilize, monitor and protect the Golden Eagle.

In **Bulgaria**, Enel Maritza East 3 partnered with the raptor protection association for a project (of which it is the main funder) to restock the griffon vulture into the Balkans. A cage was built to permit the growth of the raptors and their progressive release into the selected area. The cage with the first two raptors coming from Spain was installed near the village of Manolovo, in the territory of the Pavel Bania Municipality.

In **France**, the common buzzard (*Buteo buteo*) is actively protected in an area of 10 m²; the bird-of-prey nests and lays eggs in a natural permanent meadow area. These protection measures conserve the original habitat.

New fish ladder gratings were placed near the hydro power impoundment of Lawrence, Massachusetts (USA), to favor upward fish migration. Arrangements were made with regional fishing agencies to place additional gratings.

In **Guatemala**, the tropical forest near the El Canada Montecristo and Matanzas San Isidro plants is subject to heavy deforestation by the local population. Enel Latin America is engaged in reforestation and conservation of tree species on an area of about 20 m².

Impacts on biodiversity due to electricity distribution

In **Italy**, Enel Distribuzione took part in the LIFE-Natura project of habitat and raptor protection in the Mount Labbro and upper Albegna Valley area, which was implemented from 2004 to 2009 in southern Tuscany and co-funded by the European Union. The project area is the Site of Community Importance and the special protection area for the avian fauna of Mount Labbro and of the upper Albegna valley (Province of Grosseto), covering a surface area of about 6,300 ha. This is one of the most important Tuscan nesting areas of the Montagu's harrier (*Circus pygargus*) and of the Lanner Falcon (*Falco biarmicus*) and the home range of other raptor species, such as the Short-Toed Eagle (*Circaetus gallicus*) and the Peregrine Falcon (*Falco peregrinus*). This is the reason why the area was included in the IBA (Important Bird Area) program as no. 194 (Albegna river valley – about 38,000 ha).

As part of the same LIFE-Natura project Biarmicus, the Amiata Mountain Community (Grosseto) embarked on a program of restocking of the Red Kite (*Milvus milvus*), a magnificent raptor which was common in southern Tuscany and then deserted the area in the late 1970s. The restocking program, which already released 46 young individuals from France (Corsica) and Switzerland (Canton of Fribourg), will go on in the next few years thanks to a new LIFE-Natura project (conservation of the chiropteran fauna and avian fauna in central Italy). This project will cover the period from January 2010 to December 2014. The coordinating beneficiary of the project will be the Mountain Community and the associate beneficiaries will be Enel Distribuzione and the Esino Frasassi Mountain Community Ancona.

Enel Distribuzione's role in the upper Albegna Valley is as follows: safety measures on at least 30 km of overhead lines which might represent a risk to the avian fauna, namely to the Red Kite; and management of activities of monitoring (terrestrial and satellite radio tracking) of the Red Kites which will be released in order to complete the restocking program. In the Gioia della Rossa and Frasassi Natural Park (Marches), the company will take similar safety measures on another 10 km of overhead lines.

The "Save the Flyers" project will offer the opportunity to join other European grid operators in experimenting and applying new concepts for protection of the avian fauna.

Enel Distribuzione also adopted measures to mitigate the risk of avian fauna electrocution on 5 km of MV lines, insulating potentially hazardous live components (near pole-mounted isolating transformers, branch points, etc.) and replacing pin insulator supports with boxer-type crossarms, equipped with suspension insulators.

For details, the reader is referred to the commentary on indicators EN13 on page 138 and EN14 on page 139 of this chapter.

EN13

Habitat protected or restored.

Many plants and installations of the Enel Group are located inside protected areas (international, national, regional and local). From time to time, Enel is called to participate in programs of active protection of these areas.

The list of these protected areas is contained in the environmental reporting database of Enel and will be posted on its website (<http://www.enel.com/it-IT/sustainability/environment/policy/biodiversity>) by June 2010.

The following are the habitat protection measures adopted in electricity generation and distribution activities

Impacts on biodiversity due to electricity generation

> In Italy, near the site of its Porto Corsini plant, Enel protects the "Pialassa Baiona" wetland, the only lagoonal area located NE of Ravenna. The environmental conditions of the area are good.

> Enel adopts protection measures in a wide area close to its Pietrafitta power plant. The status of the protected area is adequate and consistent with the planned restoration program. The protected area owned by Enel consists of: the impoundment (lake - about 1.8 km²), a wetland area along the lake (0.08 km²) and a revegetated area (1.5 km²).

> The cooling water intake and release structures of the La Casella power plant are located in a Special Protection Area and in a Site of Community importance; power generation activities do not alter the ecosystem, but enhance the value of the environment by increasing the number of fish species through restocking programs;

> The Camerata Picena plant is located in a wide area owned by Enel, revegetated and protected; the area has decade-old trees which represent a natural park.

Always in **Italy**, in areas affected by thermal generation activities and considered to be at high industrial risk (designated as "of national interest" by Law 426/98), environmental rehabilitation and restoration works were carried out:

- > characterization plans for the Assemini and Giugliano plants were approved;
- > based on the outcome of characterization studies, emergency groundwater protection works were carried out near the Piombino and Maddaloni plants; these works add to those already completed near the La Spezia, Fusina, Porto Marghera, Sulcis, Livorno and Portoscuso plants;
- > planning of environmental rehabilitation and restoration works was completed for the Brindisi Sud power plant; in previous years, similar activities were completed for the Fusina, Porto Marghera, Sulcis, Livorno and Portoscuso plants;
- > progress was made in the program of environmental rehabilitation near the Priolo Gargallo and Augusta plant sites.

On the island of Panarea, the procedure for remediation of an old but recently identified gas-oil contamination was initiated.

In hydro power plant sites, actions were as follows:

- > removal of stagnant water on the left side of the intake structure of the San Giovanni basin Acquoria power plant;
- > safety measures on the road of access to the Cardone plant intake structure, affected by a landslide, and on the road of access to the Sclafani Bagni wind power plant;
- > demolition of the structure (towers and equipment) of the Gratacasolo plant substation;
- > remediation of disused hydrocarbon tanks in the Forno Allione and Ludrigno plants.

In March 2009, the Piedmont branch of ARPAT (oversight agency) declared that the environmental rehabilitation and monitoring activity had been successfully completed; this activity had been prescribed owing to an accidental oil spill from the Fondovalle power plant April 2006.

In **Spain**, in the three mining areas of As Pontes, Andorra and Puertollano, Endesa initiated landscape and hydrogeomorphological works to restore the original biodiversity of the areas.

EN14

Strategies, current actions, and future plans for managing impacts on biodiversity.

The impacts on biodiversity of Enel's activities are not negative.

Biodiversity impacts are analytically assessed for all installations (power plants, grids, substations, buildings, etc.) which have Environmental Management Systems in place. These installations account for the majority of the assets managed by the Enel Group (ISO certifications for 76,697 MW of installed capacity, EMAS registrations for 25,905 MW of installed capacity, as regards Enel's European assets only). The assessment method uses qualitative and quantitative indexes of relevance, which permit to assign a value that is directly proportional to the relevance of the impact which may be generated. Biomonitoring surveys (sea-, river- and land-based), which are integrated into management systems, indicate the status of the environments surrounding Enel's installations over time.

In hydro power generation, in the various Countries where the Enel Group operates, the impact of basin emptying operations is analyzed as part of Management Plans and emptying programs. The activities conducted by the hydro generation groups and the hydro generation Business Units concern: management of dams; determination of the optimum Minimum in-Stream Flow jointly with competent Authorities; periodical monitoring of streams; and design of fish pass solutions (fish ladders). In this case, the strategy implementing the biodiversity conservation policy is pursued in compliance with the rules which governing the Minimum in-Stream Flow (preparation of final schemes for releasing the Minimum in-Stream Flow). Within the Environmental Management System, this activity is regarded as a significant direct aspect. Agreements are entered into with local authorities for flushing of basins and with fishing agencies and associations for fish restocking.

Enel's strategy involves systematic environmental impact studies before the installation

of wind power plants. These studies should identify the best solutions to reconcile the installation of power plants with the natural environment and with local biodiversity conservation.

Risk analyses (identifying critical areas and classifying impacts) are submitted to Authorities. Nesting is protected by planting of vegetal species, trees and fences. Photographic simulations of future environmental conditions are carried out to assess the impact on land and landscape and its mitigation. The most important investigations concern avian fauna nesting and migration.

In **Italy**, the legislation on biodiversity affected Enel's strategies, actions and specific plans. Construction of infrastructure requires authorizations, which prescribe a number of activities to protect biodiversity. These activities are based on proposals included in Enel's Environmental Impact Studies.

Except for the power plants indicated below, the remaining Italian power plants did not cause any impact on biodiversity.

- > Leri Cavour plant - the biodiversity conservation strategy is pursued as part of the EMAS-registered Environmental Management System and on the basis of pre- and post-operation biomonitoring of crops and spontaneous vegetation. Results are reported in the environmental declaration, which identifies and assesses environmental aspects, as well as mitigation measures and action strategies.
- > Porto Corsini plant - the strategy for assessing biodiversity impacts relies on analytical tools which are included in the site-level Environmental Management System. These tools help assess the impacts in qualitative and quantitative terms, determine improvement goals, define monitoring processes and issue the public environmental declaration. The methods used to assess the impacts, develop mitigation measures and monitor residual effects are based on the study of ecosystems in wetland areas.
- > Pietrafitta plant - the activities conducted as part of the ISO 14001 Environmental Management System are integrated with a program which is aimed at monitoring the trophic state of the impoundment water. The biodiversity risk is assessed with the methods indicated in the Environmental Management System (definition of relevant aspects). The goals are: to continue the environmental restoration of the protected area and to cultivate previously rehabilitated areas. On a yearly basis, the provincial administration of Perugia surveys the avian fauna in the protected area.
- > Santa Barbara plant - biomonitoring surveys are implemented in accordance with the relevant prescriptions. The assessment was carried out upon submission of the Environmental Impact Study for the new combined cycle and the initial environmental analysis required by the ISO 14001-certified Environmental Management System. Air quality monitoring is based on active sensors (tobacco) and passive sensors (lichens). Periodical surveys are conducted along the San Cipriano stream to monitor the concentration and composition of algae, the Extended Biotic Index and some chemical parameters. The findings from the monitoring activity are submitted to ARPAT (oversight agency) and to local authorities.
- > La Casella plant - a strategy of biodiversity management is implemented under the EMAS-registered Environmental Management System (identification and assessment of environmental aspects) and through air biomonitoring surveys based on lichen species.
- > Montalto di Castro plant - the biodiversity impact management strategy is based on the EMAS-registered Environmental Management System; the

system includes marine biomonitoring surveys to be carried out near the cooling water intake structure. The methodology is established jointly with “Istituto Superiore per la Protezione e la Ricerca sull’Ambiente” (ISPRA – higher institute for environmental protection and research). The results, which are published in the EMAS environmental declaration, give evidence of positive effects on the marine ecosystem.

- > Camerata Picena plant - the natural park is managed in the following way: appropriate maintenance, constant monitoring of tree growth, trimming, mowing, maintenance of buffer zones of spontaneous vegetation and replacement of dead plants.
- > Termini Imerese and Civitavecchia plants - biodiversity effects were assessed as part of the Environmental Impact Study for converting the plants to combined cycle and coal, respectively, and upon assessment of the environmental aspects under the Environmental Management System. Marine biomonitoring (benthic components and primary productivity of waters) and land-based biomonitoring (bioindicators and bioaccumulators) surveys were conducted after the above assessments in order to check the environmental sustainability of the plant operation over time. Results show no disturbance to the surrounding environment (in Civitavecchia only biomonitoring surveys were carried out).

In **Spain**, after the presentation of the biodiversity conservation program as part of CONAMA (national congress on the environment – November 2008), Endesa identified areas of action and targets. All the business lines were called to participate in the achievement of three major targets:

- > integrating business activities with biodiversity conservation goals;
- > maintaining biodiversity awareness;
- > improving the natural value of the sites where activities are conducted.

Additionally, the Strategic Sustainability Plan includes a “Conservation Program” which has the purpose to boost biodiversity conservation. The program is intended, above all, for all the Countries and Areas where Endesa operates but may be extended to all other places where biodiversity conservation may be consistent with the company’s targets and capabilities. The program is coordinated by the Environment and Sustainable Development Directorate, namely by a biodiversity commission with the following members: the directors of the three sub-departments; one representative of each production line; one representative of Endesa Natural Environments and one executive coordinator. The coordinator, guided by the commission, has the task of monitoring the progress of the program. The commission works autonomously and has the responsibility of steering and coordinating strategic biodiversity conservation initiatives. The conservation program defines priorities in terms of results and future initiatives. The activities to be implemented concern the installations and their areas of influence.

As to the environmental interactions between activities, areas where they take place and ecosystems, the company planned preventive and corrective measures, socio-environmental projects and studies and applied research for environmental sustainability, especially in the areas directly affected by the company’s installations, with different levels of priority.

Socio-environmental programs and initiatives, which are geared to enhance the social value of the environment, do not fall under the environmental actions. Endesa participates in technical-scientific research projects and programs to gain further insight into, safeguard and enhance the value of biodiversity, and places particular emphasis on control of invasive species, identification of ecosystems,

including but not limited to the environment of the areas affected by its activities. Its main objectives are: favoring the efficient use of natural resources; mitigating the environmental impact of its installations; contributing to social awareness; adequately sharing environmental responsibilities for the use of natural resources, by putting forward sustainability and biodiversity conservation proposals; promoting research and, above all, disseminating and leveraging knowledge; and contributing to various initiatives of high natural value.

The Spanish legislation provides for biodiversity impact studies, as well as preventive, corrective and offset measures (agreed on during the authorization process); these studies and measures concern the stages of construction, operation and decommissioning of installations. Risk analysis makes it possible to identify critical areas and establish a hierarchy of impacts.

Always in **Spain**, to manage the risk of significant biodiversity impacts, EUFER supports the initiatives organized by the Doñana 21 Foundation (sponsoring of a photovoltaic installation and energy audits). These initiatives fall under an agreement for conservation of the natural heritage of Castilla León (habitat, flora and fauna protection, rehabilitation of degraded areas, informational material, etc.) and maintenance of a wild bird center (providing care to birds injured upon collision with wind turbine blades and reintroducing them into the environment).

In **Chile**, in the Patagonian steppe, projects of improvement of habitats near installations are implemented and studies are conducted on the aquatic ecosystem and to assess the value of biodiversity of ponds and lakes.

In **Costa Rica**, Enel Latin America funds the activity of Fundecor (NGO) to maintain the areas adjoining its Don Pedro and Rio Volcan plants (5 and 3 ha, respectively).

In the **United States**, in the Ware Shoals hydroelectric project site (South Carolina), Enel North America carried out fish restocking campaigns.

In **France**, the national legislation prescribes preliminary studies and preventive measures upon development of wind power plants.

For details, the reader is referred to the commentary on indicator EU13 on page 136 of this chapter.

EN15

Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.

The Enel Group carries out activities of hydro and wind power generation in a high number of protected areas. These areas are listed in the environmental reporting database and will be posted on Enel's website (<http://www.enel.com/it-IT/sustainability/environment/policy/biodiversity>) in June 2010. The data will include the taxonomic name of the species and their inclusion in the IUCN Red List or in other national species conservation lists.

No impact is caused on the species included in the IUCN Red List.

In **Italy**, in the protected area of Pietrafitta, Enel takes conservation measures. The provincial administration of Perugia conducts yearly surveys of the avian fauna. The results of these surveys do not indicate species included in the IUCN Red List.

> The coast near the Montalto di Castro plant site is protected. Two Sites of Community importance were identified. The sites are home to tortoises (*T. hermanni* and *E. orbicularis*) and birds (*Egretta garzetta*, *Nycticorax nycticorax*). The two tortoises have the "near threatened conservation status" under the IUCN classification: the former is among the most interesting European reptiles whose habitat must be protected; for the latter, capture is prohibited and breeding in captivity and trade are regulated. The two birds, the little egret and the night heron, are ciconiiforms of the Ardeids family and, under the IUCN classification, they have the "least concern" conservation status.

In **Spain**, Endesa identifies and assesses the risks connected with species conservation in the areas where it operates. Under the 2004-2009 cooperation program between Gesa-Endesa, the Environment Ministry and the Government of the Balearic Islands, 186 projects were completed (58 in Minorca and 128 in Majorca) for conservation of the Osprey (*Pandion haliaetus*) and of the Black Kite (*Milvus migrans*). Although these species have a "least concern" conservation status under the IUCN classification, they are at risk of extinction on these islands. The main initiatives were focused on special protection areas and surrounding wetlands.

- > Monitoring studies conducted in the Balearic Islands by the Environmental Department, jointly with qualified ornithologists, indicated that collisions with power lines sharply decreased wherever prevention measures had been adopted.
- > In the Canary Islands, activities continued under the agreement signed in July 2008 between Endesa Distribución and the Spanish ornithological society. The agreement concerned a study to identify the risks of collision of avian fauna with overhead lines in Lanzarote and Fuerteventura. The study identified the critical points of risk to the avian fauna.
- > In southern Spain (Andalusia and Extremadura), Endesa Distribución entered into an agreement with the Government of Andalusia in November 2008 to participate (as co-funder) in the "LIFE-Nature and Biodiversity" project to conserve and manage the special protection areas of the birds of the Andalusian steppe. The project involves, among others, the identification of critical points of collision and electrocution of birds coming into contact with power lines. The project, selected in July 2009 by the LIFE Committee of the European Commission, will last 47 months, beginning in January 2010.
- > Jointly with the Forest Technology Centre of Catalonia, a census of the Pla de l'Urgell (Ebro basin) avian fauna was carried out. This activity identified the main avian species, their habitats and the technical requirements that the Mollerussa Montroig-Tàrraga Tarrega power lines should fulfill to protect these species.

Endesa developed similar projects in South America. For instance, in **Chile**, Endesa cooperates with the San Ignacio del Huinay Foundation, which devotes itself to the conservation of the last rainforests of the Planet. The Foundation, traditionally oriented at the study of marine invertebrates, now conducts microbiological investigations on hot springs, surveys flora and fauna and performs limnological studies on previously investigated water bodies. These activities led to identify numerous new species and ecosystems in areas of particular interest.

In **Slovakia**, the activities conducted in the High Tatras National Park help safeguard some of the species included in the IUCN list, favoring their settlement: the marmot (*Marmota marmota latirostius*), the Alpine chamois (*Rupicapra rupicapra tatrica*), the peregrine falcon (*Falco peregrinus*) and the golden eagle (*Aquila chrysaetos*). All of these species have the “least concern” conservation status under the IUCN classification.

In **Bulgaria**, the following protected species having the “least concern” conservation status under the IUCN classification are present in the protected area which connects the Maritza East 3 plant to Lake Rozov Kladenetz through the Sokolitzia river: *Hyla arborea*, *Accipiter gentilis*, *Aegithalos caudatus*, *Cuculus canorus*, *Hippolais pallida*, *Acrocephalus arundinaceus*, *Hirundo daurica*, *Motacilla flava*, *Oriolus oriolus*, *Parus major*, *Passer hispaniolensis*, *Upupa epops*, *Gavia arctica*, *Phalacrocorax pygmaeus*, *Pelecanus crispus*, *Ardeola ralloides*, *Ardea purpurea*, *Botaurus stellaris*, *Egretta alba*, *Egretta garzetta*, *Ixobrychus minutus*, *Nycticorax nycticorax*, *Ciconia ciconia*, *Ciconia nigra*, *Platalea leucorodia*, *Plegadis falcinellus*, *Cygnus bewickii*, *Cygnus cygnus*, *Tadorna ferruginea*, *Pandion haliaetus*, *Aquila pomarina*, *Buteo rufinus*, *Circus gallicus*, *Circus aeruginosus*, *Circus cyaneus*, *Circus pygargus*, *Pernis apivorus*, *Falco naumanni*, *Philomachus pugnax*, *Himantopus himantopus*, *Dendrocopos syriacus*, *Anthus campestris*, *Lanius collurio*.

The area also accommodates two “near threatened” species, *Aythya nyroca* and *Aquila clanga*, and two “endangered” species: *Branta ruficollis* and *Oxyura leucocephala*.

In **Romania**, the nesting of storks, with the “least concern” conservation status under the IUCN classification, is protected in the area served by Enel Dobrogea, circular supports are mounted on power lines to favor nesting.

One of the important wind farms of **France** is located in a zone designated as “ZICO” (Zone d’importance pour la Conservation des Oiseaux), with 60 species of birds, namely the red kite (*Milvus milvus*), the stork (*Ciconia ciconia*) and the common buzzard (*Buteo buteo*).

EMISSIONS, EFFLUENTS, AND WASTE

EN16

Total direct and indirect greenhouse gas emissions by weight.

With a view to adopting the best strategies of reduction of greenhouse gases, Enel monitors the greenhouse gases produced or released during its activities.

CO₂ is the typical product of combustion and, as such, the near totality of it derives from thermal power plants: the computation of emissions is based on analyses made on fuel and ash.

Small amounts also come from: port and fuel-oil storage & handling activities (natural gas and gas-oil combustion to produce processed steam); geothermal drilling (combustion of the gas-oil which feeds the diesel engines of drilling equipment); natural gas distribution in Spain (combustion of one fraction of the wheeled gas for heating of the gas upon depressurization); and emergency generating sets installed in the generality of Enel's installations (combustion of gas-oil). In this case, emissions are computed on the basis of standard factors.

CO₂ is also contained in the reaction products from the process of desulfurization of the flue gases outgoing from the boilers of some thermal power plants. Emissions are computed stoichiometrically or using of standard factors, on the basis the raw materials used for desulfurization.

Finally, natural gas distribution contributes to CO₂ emissions in another way: as CO₂ is a minor constituent of natural gas, it is also present in the losses from the distribution grid. The computation is based on the measurement of these losses.

The total CO₂ emissions for the overall Group is equal to 122,089 million t, of which 121,982 million t come from fossil-fired power generation.

The total specific emissions of greenhouse gases, expressed in toe per MWh_{eq} (total net specific emissions), from all of the Group's power plants (renewable and conventional) amount to 413.

The total specific emissions of greenhouse gases from fossil-fired thermal power plants, expressed in toe per MWh, amount to 734.

For emissions from transport of materials, the reader is referred to the commentary on indicator EN17 on page 146 of this chapter.

SF₆ is used in high- and medium-voltage electrical equipment as an insulant and for electric arc extinction; in these applications, it is irreplaceable. Its emissions into the atmosphere are due to leaks from the above equipment. These emissions are determined with a complex procedure, which takes into account replenishments (difference between the weights of SF₆ contained in the bottles used for replenishment, at the start of the year and at the end of the year, increased by the weight of SF₆ contained in the bottles purchased or acquired during the year and decreased by the weight of SF₆ contained in the bottles transferred during the year), including those made by third parties. In the very rare event of breakage of SF₆-containing equipment, its nominal SF₆ content is considered as leakage.

Given the particular care with which SF₆ is removed from end-of-life equipment, the above procedure can yield fairly reliable data.

The computed amount of SF₆ is then multiplied by the 100-year value of the Global Warming Potential (GWP) 22,000, which is specified in the IPCC Fourth

Assessment Report.

The total emissions of SF₆ from all of the Group's power plants are equal to 1,378 kg (31.4 thousand t of CO₂-equivalent), whereas the total SF₆ emissions from distribution activities are equal to 4,649 kg (106 thousand t of CO₂-equivalent).

CH₄ derives from losses of natural gas from the distribution grid. These emissions are determined on the basis of losses, taking into account the methane content of natural gas and its density.

The computed amount of CH₄ is then multiplied by the 100-year value of the Global Warming Potential (GWP) 25, which is specified in the IPCC Fourth Assessment Report.

The total emissions of CH₄ for the overall Group (due to gas distribution in Spain and mining activities) are equal to 1.57 thousand t (39.3 thousand t of CO₂-equivalent).

With regard to "minor" pollutants (e.g. metals), Enel conducted extensive programs of monitoring of their concentrations in the flue gases released by its thermal power plants, under different conditions of types of fuel and abatement systems. The results indicate that these concentrations comply – within wide margins – with the point-source limits of emissions indicated in the national legislation of the countries where Enel operates.

In line with the IPCC Guidelines, the emissions of CO₂ from the share of thermal generation obtained from solid biomass and the biodegradable fraction of RDF (containing non-fossil carbon) are not reported. Indeed, these emissions counterbalance the CO₂ that biomass (organic component of waste or used on as-is basis) absorbs during its growth. Indeed, as biomass is a renewable fuel, it does not produce CO₂.

However, CO₂ emissions from combustion of the non-biodegradable fraction (containing fossil carbon) of RDF are reported.

Indirect emissions from energy consumption (electricity, heat and steam) have not been added to the total emissions, as they are negligible with respect to the total emissions from Enel's activities.

Total direct and indirect emissions of greenhouse gases are shown in the tables of page 181 at the end of this chapter.

EN17

Other relevant indirect greenhouse gas emissions by weight.

The Enel Group uses the electricity produced by its plants in different activities (auxiliary systems, fuel handling, offices, etc.). Emissions from these uses are regarded as direct emissions in the commentary on indicator EN16 on page 145 of this chapter.

The total indirect emissions are considerably lower than direct ones.

Enel joined the Carbon Disclosure Project (CDP) to assess greenhouse gas emissions by its suppliers. Its intent is to assess emissions from the supply of goods and services upstream and downstream of the production process, so as to compare the data with the typical performance data of each activity and, thus, to trigger a process of gradual mitigation of the related impacts. This is a pioneering project, which gathers a narrow number of worldwide leading companies in all productive sectors.

Enel has been providing greenhouse gas data to CDP for many years, by responding to a highly technical and elaborate questionnaire. In contrast, the questionnaire that Enel administers to its suppliers is very simplified, taking into account the lower greenhouse gas volumes that they emit. Endesa has participated in the program since 2009. The total suppliers of the Enel Group involved in the project amount to about 400. The results are posted on the www.cdproject.net website. In 2010, the measures to be undertaken will be initially assessed and criteria to assess suppliers with virtuous behaviors in terms of greenhouse gas emissions will be identified. For Mobility Management policies, the reader is referred to indicator EN18.

EN18

Initiatives to reduce greenhouse gas emissions and reductions achieved.

Through its generation Divisions (Generation & Energy Management, Iberia & Latin America, International, Renewable Energy), Enel is committed to developing renewables in all the Countries where it operates.

Enel's strategy rests on:

- > investing in the best available technologies for thermal power generation (e.g. low-CO₂ high efficiency coal-fired and combined-cycle gas-fired power plants);
- > developing zero-emission sources, such as renewables and nuclear;
- > increasing energy efficiency and combined heat & power generation in all of its business activities (generation, distribution and supply);
- > researching into, developing and demonstrating CO₂ capture and sequestration and innovative renewable energy technologies;
- > globally committing to cut down CO₂ emissions by disseminating projects and best practices in East-European and developing countries, relying - among others - on the Kyoto Protocol flexible mechanisms (Clean Development Mechanism and Joint Implementation).

Thanks to its high number of renewable and nuclear power plants, the Enel Group succeeds in displacing the CO₂ emissions reported in the tables of page 183 at the end of this chapter.

In particular, in 2009, net maximum electrical capacity was up, owing to - among others - of the full acquisition of Endesa. In particular, the net maximum electrical capacity of wind power plants was down by 137 MW, whereas the one of photovoltaic solar, hydro and geothermal power plants was up by 20 (MW), 3,718 (MW) and 55 (MW), respectively.

The net maximum electrical capacity of nuclear power plants was also up, by roughly 1,130 MW, as a result of both the acquisition of Endesa (increase of 1,080 MW) and of efficiency gains (50 MW) in the Bohunice plant in **Slovakia**. On the nuclear front, Enel is involved in a project which is aimed at doubling the capacity of the Mochovce plant in Slovakia (1,760 MW). In **Italy**, Enel signed an agreement with EDF for construction of four EPR (third-generation) power plants (each of 1,600 MW).

The specific initiatives taken in the different countries are listed below.

In **Italy**, to minimize sulfur hexafluoride (SF₆) emissions from electricity distribution, the technical specifications for SF₆-containing equipment require: yearly leakage rate not exceeding 0.5% of the filling volume; and first replenishment after at least 10 years have elapsed since the date of filling. The manufacturer is held to declare the actual leakage rate.

Also important is the role of *mobility management policies* that the Enel's Personnel Unit pursues. These policies are intended to reduce travel for duty purposes, by introducing ICT tools (conference calls, communicator system, mass transit, car sharing and bike sharing subscriptions, car pooling, etc.). Public transport subscriptions (implemented in Rome, Milan, Turin and Piedmont Region, Ancona and Province, Genoa) are estimated to have displaced 1,630 t of CO₂ emissions in 2009. The figure was computed on the basis of a formula taken from the Report "Reducing CO₂ emissions from cars: a study of major car manufacturers", published by Transport & Environment. The formula considers the average consumption of the various modes of transport, multiplied by the number of users, the average distance from home to work and back, as well as the standard factors of emission and oxidation of the different fuels.

In **Spain**, Endesa's projects of repowering, technology transfer and improved efficiency of thermal and hydro power plants displaced 10.7 million t of CO₂. Planned activities will displace another 900,000 t of CO₂.

In line with the Group's policies, Endesa is ready to capture the opportunities offered by the fight against climate change by pursuing a specific strategy, which is outlined in its 2008-2012 PES plan. Under the plan, Endesa intends to contribute to the global challenge of secure and reasonably-priced energy supply by rapidly moving towards a new, efficient, eco-friendly and low-CO₂ energy system.

Its key goals are: to promote the development of a CCS (Carbon Capture & Storage) project; to reach 3,600 MW of installed capacity in its combined-cycle plants by 2012; to install new peaking capacity (400 MW of consumption for pumping), to be increased by 30% by 2012; to install gas turbines; and to develop the technology of hydrogen to be used as a fuel in thermal power plants. Among the results achieved in 2009: in December, approval of the Ciuden-Endesa project of carbon capture & storage (oxy-combustion in circulating fluidized beds) by the European Commission; carbonation-calcination project at its La Pereda plant - development of a low-cost carbon capture process applicable to new or existing plants; and testing of carbon capture via chemical absorption at its Compostilla plant.

In **Slovakia**, a project was initiated in July 2009 to co-fire biomass (4% of total calorific value - equivalent to 30,000 t of chipped biomass) in the fluidized-bed boilers of the Vojany plant. The project is estimated to slash about 21,000 t of CO₂ emissions per year. Although the system was still being tested in 2009, it displaced about 7,329 t of CO₂ emissions (0.8% of the total certified emissions). In the same plant, a direct, continuous emission monitoring system was put in place. The system measured CO₂ more accurately, indicating that the emissions from the plant were 1.6% lower than those calculated with analytical parameters. Even if actual emissions did not decline, the initiative demonstrated that the environmental footprint of the plant was lower than expected.

> As regards nuclear power generation, the increased efficiency and capacity of the Bohunice plant can further curb fossil fuel dependence and CO₂ emissions. Considering that nuclear capacity is up by about 50 MW and that average specific emissions from thermal power plants are roughly equal to 1,200 g/kWh, a single hour of nuclear generation (50 MWh - in place of equivalent thermal generation) can displace about 60 t of CO₂ emissions. Assuming 7,300 hrs/yr of operation, the avoided CO₂ emissions are equal to 438,000 t.

- > A 9-kW_p photovoltaic solar facility installed in the mountain chalet of "Tery" (used by hikers) generated about 9,000 kWh and displaced about 11 t of CO₂ emissions every year.

See also the commentary on indicator EN6 on page 121 of this chapter.

- > In the near future, photovoltaic solar facilities will be installed in the Mochovce and Vojany plants. At present, these facilities are awaiting approval from the distribution Grid Operator (Middle Slovakian). If the project is approved, the facilities will be built in February 2011. The installed capacity of each of them will be 958 kW_p and their yearly output will amount to approximately 982 MWh and 938 MWh, respectively. They will displace CO₂ emissions by about 1,200 t and 1,100 t, respectively.

In **Bulgaria**, the decrease in the heat rate obtained in 2009 avoided 41,610 t of CO₂ emissions.

In **Romania**, Enel Distributie Banat made investments to improve the efficiency of the grid (energy savings: 79.67 TJ), displacing 21,000 t of CO₂ emissions, considering 953.44 g/kWh of specific emissions (source Enerdata).

In **Russia**, energy efficiency gains (about 22.42 TJ) reduced emissions by 4,136 t, considering about 665 g/kWh of specific emissions.

In **Panama**, in the Fortuna hydro power plant, electricity savings (4.62 GJ) avoided 0.8 t of CO₂ emissions, considering 598.25 g/kWh of specific emissions (source: Enerdata).

In the Lawrence hydroelectric project (**USA**), energy efficiency gains were equal to 16.2 GJ and displaced 3.46 t of CO₂ emissions, considering 769.25 g/kWh of specific emissions (source Enerdata).

In **Peru**, the Callahuanca hydro power plant, which was registered as a CDM (Clean Development Mechanism) project in 2008, passed the audit required to obtain the first CERs.

The combined-cycle gas-fired thermal power plant of Ventanilla (490 MW), resulting from conversion of two separate 160-MW cycles, is being registered with the United Nations after passing the required audits.

In **Mexico**, the three hydro power plants of Chilatan, El Gallo and Trojes were recognized as CDM projects.

EN19

Emissions of ozone-depleting substances by weight.

In its industrial activities, Enel does not use ozone-depleting substances. In most of its industrial assets, no significant emissions of ozone-depleting substances are recorded.

In **Italy**, the R22 gas is used in the heating & cooling systems of about 1,000 residential buildings, occupied by the personnel and managed by Enel Servizi. R22 will no longer be commercially available after 2010. Considering an average leakage rate from these systems of 3% on a total of 15,000 kg of gas, about 500 kg were released into the atmosphere in 2009. Investigations on a replacement gas, to be progressively introduced, are under way.

In **Spain**, chlorofluorocarbons are used in the heating & cooling systems of buildings. However, no leakage from these systems was observed in 2009. In the Ascó and Vandellós nuclear power plants, freon was replaced with a non-ozone-depleting gas.

In **Argentina**, freon cooling systems were replaced with systems using a non-ozone-depleting gas.

EN20

NO_x, SO₂ and other significant air emissions by type and weight.

In Enel's activities, namely in thermal power generation, the significant atmospheric pollutants are sulfur oxides, nitrogen oxides and particulates. Generally, these pollutants are continuously measured by analyzers that are placed in the plant stacks. Their concentration is multiplied by the flue gas flow rate, obtaining the mass emissions. In the other cases, the concentrations are measured discontinuously via periodical sampling and analysis.

In the overall Group:

- > **Net specific emissions of NO_x from thermal plants (simple and CHP) were equal to 1.56 kg/MWh**
- > Net specific emissions of NO_x from thermal plants (simple and CHP) vs. overall output of electricity and heat were equal to 0.884 kg/MWh_{eq}.
- > **Net specific emissions of SO₂ from thermal plants (simple and CHP) were equal to 1.72 kg/MWh**
- > Net specific emissions of SO₂ from thermal plants (simple and CHP) vs. overall output of electricity and heat were equal to 0.98 kg/MWh
- > **Net specific emissions of particulates from thermal plants (simple and CHP) were equal to 0.76 kg/MWh**
- > Net specific emissions of particulates from thermal plants (simple and CHP) vs. overall output of electricity and heat were equal to 0.432 kg/MWh_{eq}.

With regard to "minor" pollutants (e.g. metals), Enel conducts periodical surveys to monitor their concentrations in the flue gases released by its thermal power plants. The results indicate that these concentrations comply - within wide margins - with the limits established by the applicable legislation.

Hydrogen sulfide (H₂S) is the only potentially polluting substance which is present in significant amounts in geothermal fluid; however, thanks to abatement systems, the emissions of this gas are lower than those naturally present in the environment.

Net specific emissions of H₂S from the geothermal plants of the overall Group were equal to 1.98 kg/MWh.

In 2009, thanks to investments, the specific emissions measured in the different countries where Enel operates progressively diminished. Emissions dropped in Italy, Bulgaria, Slovakia and Spain.

The emissions of all types of pollutants in each country are shown in the tables of page 183 at the end of this chapter. These values cannot be compared with those of the overall Group as they should be weighted for generation.

For details about this indicator, the reader is referred to the GRI Content Index on page 10 of the Environmental Report 2009.

EN21

Total water discharged by quality and destination.

Enel pays the utmost attention to the quality of discharged water. This is why it is investing abroad to improve waste water treatment systems whose standards are below Italian ones. Water may be discharged into surface water bodies, into the soil and into the subsoil. Polluted industrial water is treated before being discharged into the recipient water bodies.

All the sites producing contaminated water are equipped with specific treatment systems, depending on the type of contamination.

Oily waste water treatment systems may be more or less sophisticated depending on their types:

- > simple trap tanks or a weir separating floating oily substances from the water discharged under the water surface;
- > systems with multiple in-series separators (lamellar separators, oil absorbent socks, lamellar packs, trap tanks). All these separation techniques exploit the different density of oil with respect to water.

Other systems treat the industrial water contaminated by chemical substances. These systems consist of tanks where reagents are added (mostly lime milk and ferric chloride): regulation of pH and addition of polyelectrolyte cause the pollutants to flocculate. The flocculate is then transferred from the bottom of the tank, thickened and dehydrated to produce sludge, which is then managed as waste.

Some thermal power plants whose flue gas denitrification systems use large amounts of ammonia may be equipped with ammonia treatment systems, i.e. stripping towers which remove ammonia from water.

Regardless of the mode of treatment of polluted water, authorities generally prescribe a single point of discharge for all the waters. Therefore, it is impossible to quantify the volumes of water discharged from each treatment process. All the waters are discharged into surface water bodies.

The total waste waters discharged by the installations of the overall Group were equal to 256 million m³.

The amount of raw materials needed for the treatment processes will tend to drop thanks to the investments made and to the higher environmental efficiency of new installations (as in the case of Slovakia). The quality of the discharged waters will progressively improve and waste water recovery will become more widespread.

The data on emissions into water are shown in the tables of page 183 at the end of this chapter. For details about this indicator, the reader is referred to the GRI Content Index on page 10 of the Environmental Report 2009.

EN22

Total weight of waste by type and disposal method.

Disposal or recovery methods differ, depending on the type of waste produced. Some items of waste are recovered by specialist operators: gypsum and combustion ash are used as building materials; oils and batteries are regenerated; paper, plastics, glass and wood are delivered to specific recovery operators.

The percentage of recovery of coal and brown-coal ash produced by the Enel Group in 2009 is roughly 30%, while the recovery of gypsum from desulfurization is approximately equal to 53%.

Only some items of waste (gypsum and ash), produced by coal- and brown-coal-fired thermal power plants, can be directly correlated with Enel's activities. However, their production is to be regarded as an index of environmental efficiency: the more efficient the emission treatment systems, the higher the amounts of waste produced.

For details and for a comparison of 2007-2009 data for the overall Group concerning PCBs, nuclear waste (under the definitions of the IAEA Protocols), total weight of waste by type and method of disposal, reference should be made to the GRI Content Index on page 10 of the Environmental Report 2009.

EN23

Total number and volume of significant spills.

In electricity generation and distribution, spills of different kind and extent may occur into the surrounding environment.

The following are the most significant ones recorded in 2009.

Spills during electricity generation

During electricity generation activities in 2009, 4 spills were recorded, as specified below.

In **Italy** and **Spain**, no significant spills occurred during electricity generation in 2009.

In **Slovakia**, 2 l of lubricating oil were spilled into the Vah river by the Nosice hydro power plant, owned by Slovenské elektrárne. Emergency response measures were timely instituted. In particular, use was made of a solution inducing biodegradation (Bactorol 3000).

In **Bulgaria**, a number of leaks occurred from the brown-coal ash handling system of the Maritza East 3 plant. The leaks involved the release of an undefined volume of water and ash into the soil and the Sokolitz river. The total volume cannot be quantified. However, these substances are not hazardous. Investigations confirmed that no impact was caused on the environment. Prompt measures were taken to limit the leaks. The ash handling system will be gradually rebuilt to minimize and eliminate these incidents. The new piping will be provided with a layer of basalt, which will withstand abrasion, thus avoiding cracks along the system.

In **Brazil**, during a fire in the substation of Santa Cruz da Serra, some welds of the main tank broke, causing leakage of dielectric oil. 40.7 t of polluted soil and 46 m³ of polluted water were removed. As the site was promptly rehabilitated, the spill had no significant environmental impact.

In **Chile**, 50 l of oil were spilled at the thermal power plant of Huasco.

> In the San Isidro thermal power plant, the vat collecting filter clean-up drains and polluted rainwater of the 1,500 m³ gas-oil tank sank, contaminating 1 m² of surface. Additionally, during preventive maintenance of the plant and withdrawal of the waste produced, oil was spilled owing to breakage of one container.

> At the Sauzal hydro power plant, breakage of the heat exchanger of stage 3 of the main transformer caused the gradual spill of about 2,000 l of oil.

Generally, all the necessary measures for confinement and remediation of the contaminated soil were taken, so that the environmental impacts were not significant.

In **Costa Rica**, 5 l of lubricating oil were spilled by the Tierra Morena wind power plant.

Spills during electricity distribution

In **Italy**, in Enel Distribuzione's power grid, a total of 438 spills of insulating dielectric oil from in-service equipment occurred (99% from pole-mounted transformers). Each spill involved an average of 80-100 l of oil and a soil surface of some square meters.

> In the Aosta Valley, on Deval's grid, two spills of insulating dielectric oil from pole-mounted transformers occurred. Each spill involved an average of 10-15 l of oil and a soil surface of some square meters.

All the confinement and remediation works were carried out under the simplified procedure (surfaces of less than 1,000 m²) referred to in Legislative Decree 152/06, Title IV. The incidents were concentrated in areas where thefts from in-service equipment (to extract valuable materials, e.g. copper) are frequent. Generally, given the low amounts of oil involved, the contaminated areas are remediated within 30 days from the incident by instituting confinement measures, without initiating an actual rehabilitation process.

In **Chile**, some of the oil contained in an oil treatment tank (capacity: 35,000 l), located inside a 220/110 kV substation, was spilled owing to detachment of the upper valve of the level measuring sleeve.

In **Colombia**, three emergencies occurred in three different distribution substations owing to uncontrollable external factors. These emergencies, which caused the spill of about 0.83 m³ of dielectric oil, were timely responded to and no significant impacts were recorded.

Everywhere, site rehabilitation activities were carried out.

EN24

Weight of transported, imported, exported or treated waste deemed hazardous under the terms of the Basel Convention (Annex I, II, III, and VIII) and percentage of transported waste shipped internationally.

All the hazardous waste produced by Enel's activities is delivered to waste recovery or disposal operators, except for amounts temporarily stored in authorized storage areas inside the power plant sites.

For details about the amounts, see the commentary on indicator EN22 on page 152 of this chapter.

For details about the waste produced and delivered to recovery operators, the reader is referred to the GRI Content Index on page 10 of the Environmental Report 2009.

EN25

Identity, size, protected status and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.

Enel constantly monitors its impacts on the areas affected by its activities, paying considerable attention to quality and quantity of water releases.

In particular, Enel identified the water bodies used for hydro power generation in the countries where it operates. The discharge of cooling water from thermal and nuclear plants may affect the water resources from which the same water is abstracted and to which it is returned with a slight temperature increase.

Detailed data are contained in the environmental reporting database of Enel and will be made available in the environmental section of its website in June 2010 (<http://www.enel.com/it-IT/sustainability/environment/policy/biodiversity>). In particular, the database collects all the data on the streams from which water for cooling is abstracted and/or to which it is returned (the returned water exceeds 5% of the yearly average discharge of the streams).

PRODUCTS AND SERVICES

EN26

Initiatives to mitigate environmental impacts of products and services and extent of impact mitigation.

Enel adopts various initiatives to mitigate the environmental impact of its electricity generation and distribution activities. The most significant ones are listed below.

Mitigation of impacts due to electricity generation

In **Italy**, in the thermal power plant of Augusta - the categories of waste to be delivered to recovery operators increased; the plan of disposal of PCB-containing transformers was completed; and asbestos-containing insulating material was removed from the penthouse of the three steam generators.

> In the Leri Cavour power plant - a plan was defined and implemented to monitor the combustion of auxiliary boilers; under the plan, the parameters of emissions into the atmosphere are monitored on a half-yearly basis and the monitoring activity is alternatively carried out by plant personnel and by

contractors. The boilers can thus constantly operate under the best combustion conditions, with optimum efficiency (gas-oil consumption) and emissions into the atmosphere. Moreover, consumption of SF₆ was monitored with a view to reducing releases into the atmosphere.

> In the Porto Corsini power plant - a program was initiated to replace the systems abating noise emissions during start-up transients.

> In the Pietrafitta power plant - measures were taken to remove asbestos-containing components; the replacement of gas-turbine burners with low-NO_x burners was planned; preliminary studies were carried out on mitigation of noise emissions from the plant upon operating transients; transformers with dielectric oil containing PCBs exceeding 500 ppm were disposed of; under the Environmental Management System, employees' and stakeholders' awareness and training initiatives were organized to improve environmental protection; finally, more significant amounts of waste waters were recovered.

> In the Santa Barbara power plant - the insulation of components no longer used or being demolished (asbestos and other insulating materials) was removed and disposed of; the recovery of office paper, cardboard and mixed packaging materials was intensified; disused tanks previously containing chemical reagents for water treatment were remediated.

> In the La Casella power plant - in the online process of clean-up of gas-turbine units, the detergent with the danger signal Xi (irritant) was replaced with water.

> In the Leghorn power plant - in the application for obtaining the Integrated Environmental Permit, Enel proposed the co-firing of palm oil in place of dense fuel oil; this choice also reduces emissions of macro-pollutants (CO₂, SO₂, NO_x and particulates).

In general, in 2009, Enel continued its program of removal of the remaining asbestos-containing materials.

> In the Capraia power plant - the consumption of biodiesel to feed diesel units was increased (in 2009, the old Unit 2, fired with gas-oil only, was replaced with a new unit fired with gas-oil or biodiesel); this choice increased the installed capacity (thanks to the use of the renewable fuel) and the electricity generation of the plant, decreasing its consumption of gas-oil and, consequently, its CO₂ and SO₂ emissions.

> In the Camerata Picena power plant - priority was given to the following measures: repair of components (instead of disposal); use of more eco-friendly materials and substances than in the past; maintenance jobs aimed at preventing and/or minimizing leakage from water systems. Additionally, the program of final disposal of PCBs of less than 500 ppm was completed.

> In the Bari power plant – investments were planned to reduce water abstraction from wells and nitrogen oxide emissions via the Overfire Air (OFA) technique, until reaching the limit of 120 mg/Nmc (Normal cubic meters). Studies were conducted to assess the feasibility of building systems for treatment and fully recovery of meteoric runoff waters and noise abatement systems. Finally, progressive asbestos removal continued under the relevant multi-year plan.

> In the La Spezia power plant - priority was assigned to measures decreasing primary and secondary emissions: upgrade of the electrostatic precipitator; installation of ecological buckets in coal unloading systems; modernization of the particulate abatement system of the bunker; construction of a new system to collect rainwater at the pier and convey it to the treatment system; and, finally, removal of flyash from the Campo Ferro area.

> In the Piombino Business Unit – the remaining PCB-containing transformers were disposed of.

> In the Montalto di Castro power plant – in the sea water intake structure, use was made of biodegradable lubricants.

> In hydro power generation - polluting and toxic products are gradually replaced with alternative biodegradable and atoxic products. In some plants (including Avio - Saviner - Gardona - La Stanga), measures were taken to abate noise emissions. Moreover, underground single-chamber tanks were replaced with double-chamber ones equipped with leakage detectors and separators and trap tanks were put in place to recover small leaks of oil in water.

The goal is to increase electricity generation from renewables and thus obtain Green Certificates.

Additionally, a project was formulated to increase the capacity of existing stations for energy recovery from Minimum in-Stream Flow releases from the main impoundments. In some cases, the Minimum in-Stream Flow was voluntarily released under agreements which were made before the entry into force of the relevant legislative obligations.

> In geothermal power generation - a new drill rig with lower environmental impact was delivered. Demisters were installed to minimize boron salt emissions at the Farinello and Piacenza 4 power plants. At the Molinetto power plant, AMIS systems were adopted to abate hydrogen sulfide emissions upon drilling; about 3.6 km of asbestos-insulated piping were removed and tests were conducted to reduce soda (NaOH) consumption; the 50-kV line no. 4253 was removed; tightness tests and remediation works were carried out on the still used underground single-chamber tanks; noise abatement measures were taken on the discharge channels of the Dronero, Basso Piova, Ponte Marmora and Pietraporzio power plants; finally, transformers with PCBs exceeding 500 ppm were disposed of and a solvent recovery tank was purchased for the Malegno power plant in order to reduce the risk of leakage.

In **Spain**, as part of the program of landscaping of its sites, Endesa demolished obsolete structures and buildings, adopted separate collection and withdrawal of the waste produced and finally restored the landscape in the recovered areas. As a whole, in 2009, Endesa carried out activities in 17 power plants: 6 belonging to the "Ebro-Pyrenees" group and 11 to the "South" group. In the Aigüestortes i Estany de Sant Maurici National Park (Ebro-Pyrenees group), one overhead line was removed thanks to the installation of a hydraulic microgenerator which supplies energy to local users.

> In renewable power generation (small-sized installations) and in combined heat & power generation, the design of installations assigns priority to mitigation of the environmental impact, to harmonization with the local orography and ecosystems and to minimization of earth works. Use is also made of palliative and offset methods, e.g. reintroduction of vegetal species, reforestation or support to conservation of species of biological interest. In numerous wind farm sites, environmental monitoring programs are in place to minimize possible impacts on the avian fauna.

> In nuclear power generation, numerous environmental enhancement projects are being developed. The most important ones are: replacement of the main transformer containing PCBs (Ascó and Vandellós); replacement of the radiation

monitoring system (Vandellós); replacement of freon (Ascó and Vandellós); and reduction of radioactive waste (Ascó and Vandellós).

Always in **Spain**, Eufer: reduced office paper consumption by about 43%; planned to reduce hazardous waste production (CER 130110 and 150110) by 3%; extended the ISO 14001 certification to some wind farms (Belmonte, Viravento, Caldereros, Cabo Vilano and the Enealco CHP plant) and office buildings (Madrid, A Coruña, Extremadura, Sevilla and León).

In **Slovakia**, in electricity generation, the following environmental improvements were made. In the Vojany plant: use of biomass co-fired with coal (with equivalent renewable power generation); use of a system for capturing primary rainfall water which may be oil-contaminated; installation of a continuous CO₂ emission monitoring system; installation of a system to monitor the amount of water discharged into the Laborec River. Additionally, flue gas volumes were monitored to check the reliability of measuring instruments and flue gas analyzers were calibrated. Moreover, the waste water treatment system was renovated. The new technology produced clear environmental benefits in terms of higher treatment efficiency, lower consumption of reagents (the use of FeCl₃ was down by 25% and the one of CaOH₂, which was replaced with polycoagulant, was down by 100%), lower production of sludge and abatement of soluble solids by 75%. To increase the recovery of some types of fuel (so far, metals only), electronic auction sales were introduced.

> In 2010, the sales of flyash and gypsum from desulfurization are planned to go up. Conditions are also being created to sell the sludge resulting from decarbonation of nuclear plant input waters; the sludge may be used as amending agent in agriculture (CaCO₃ content exceeding 85%). To protect soil and groundwater, tightness tests were conducted on all the installations, machinery and tanks containing hazardous substances, so as to prevent leakage.

> In the Novaky thermal power plant, a new system was put in place to treat water polluted by fuel oil (mazut); the floor of the inflammable liquid storage area was rebuilt; and a leakage detection system was installed in the chemical substance storage area. The largest oil tank of Unit 3 of Novaky A was repaired and a leakage detector was put in place. Heavy-oil tanks 4 and 5 were provided with double-chamber bottoms. The emergency tank was rebuilt and a new pumping station was installed in the mazut (heavy fuel-oil) handling area of units 3 and 4. The oil duct between the machine hall and the transformer oil replacement tower was rebuilt.

> In the Nosice hydro power plant, turbine 3 was sealed to prevent oil leakage (as reported in connection with indicator EN23); equivalent works were planned for turbines 1 and 2 (to be carried out in the course of 2010).

In **Bulgaria**, consumption of caustic soda was down by 25% and the one of hydrazine was down by 66.5%, thanks to the decrease of the industrial water treated by the plant and to the completion of environmental rehabilitation of the plant site. Conversely, the consumption of calcium hydroxide was up by 77.4% owing to the increase in the amount of treated waste waters.

Water consumption was down by 13.5%. Also the amount of treated and discharged waste waters diminished thanks to a new water management system, which increased recovery. In particular:

> a 30,000 m³ tank was built to collect part of the water coming from the ash settling tank; this water is reused as make-up water in the ash handling

system, where necessary (periodically, to facilitate ash settling on the bottom, the edges of the settling tanks are raised; this increases the volume stored in the tanks and thus water requirements);

- > a rainwater tank and an oil separation tank were built to collect the water coming from the sewer system; this water is then reused in the ash handling process;
- > the water purged from the closed-cycle cooling system is reused to feed desulfurizers and for other purposes inside the plant;
- > a feedwater system from the turbine hall to the ash handling cycle was built. The emissions of SO₂ were down by 47.7% (thanks to desulfurizers); those of NO_x were down by 19% (thanks to new boilers). Net specific emissions of CO₂ (g/kWh) declined by 4.5% thanks to higher efficiency of the plant.

In waste management, particular emphasis is placed on maximization of recovery through separate collection of all types of special waste. The introduction of a dehydration system made it possible to sell about 1,500 t of gypsum. Next year, this amount will reach about 300,000 t thanks to agreements already signed with local building firms.

In **Russia**, the following environmental efficiency efforts were undertaken: assessment of environmental risks to surface waters, soil and groundwater; definition of mitigation plans; issuing of guidelines on waste management and use of recycled material in power plants; introduction of an integrated Occupational Health & Safety and Environmental System; formulation of policies for managing asbestos-containing materials and of procedures for preventing asbestos fiber exposure in workplaces and introduction of a ban on the use of new asbestos-containing materials; development of a specific project to decrease water consumption, to be applied to KGRES and NGRES and involving specific goals; study aimed at increasing the amount of ash sold to third parties for recovery. Finally, specific emissions of particulates were slashed by as much as 25% thanks to the use of another type of coal, which produces less ash, and to better maintenance of electrostatic precipitators (ESPs).

In **France**, during construction of installations, studies on mitigation of noise levels are carried out.

In the **United States**, environmental audits are conducted to constantly monitor performance in the various sites. Under the new license (increase of the minimum in-stream flow) for the Glendale Hydro Project, a new turbine will be installed, with an about 16% increase in renewable power generation. In the High Falls and Lower Saranac plants, the mineral oil used in the oleodynamic system of trashracks was replaced with ecological oil. Oil sensors were installed in the traps of the plants of Dewey's Mill (Vermont) and Mascoma (New Hampshire) to prevent spills into the soil.

In the geothermal power plant of Stillwater, a system is being built to abate the noise from the four turbine exhausts. Moreover, the pipes and supports of the plant were removed from the adjoining Duck Club property and the new pipeline was camouflaged with an appropriate paint.

In Lawrence, after construction of the power plant, the Lawrence Lane (owned by the Fallon County) was paved and the plant's lighting systems were retrofitted to mitigate their light impact. Numerous voluntary initiatives were organized to remove waste from the basins (e.g. Lowell Folk Festival, Green Night/Lowell Spinners and other initiatives in Ware Shoals, South Carolina).

In **Costa Rica**, the waste materials collected from the trashracks of the hydro power plant of Don Pedro are used as fertilizers in reforestation projects. To mitigate groundwater and surface water pollution, the hydro power plants of Don Pedro and Rio Volcán adopted hydraulic oil of vegetal origin and grease which are fully biodegradable.

In **Panama**, under the ISO 14001 management systems: waste is separately collected and its reuse is maximized; and modular waste water treatment processes are in place. Meters are also planned to be installed at all the points of water consumption of the Fortuna plant in order to monitor water consumption.

Mitigation of impacts due to electricity distribution

In **Italy**, in accordance with the applicable legislation, the program of removal of PCBs with a concentration exceeding 500 ppm (and of the equipment containing them) was completed.

Enel Distribuzione installed low-loss transformers, built new substations and upgraded power distribution lines. See also the commentary on indicator EN5 on page 118 of this chapter.

- > Enel Sole went on with its "LED project", having the purpose of decreasing the electricity consumption of public lighting systems. Energy efficiency projects allowed the company to obtain white certificates. See also the commentary on EN5 on page 118 of this chapter and on EC2 on page 85 of this Sustainability Report.
- > Enel Distribuzione continued its efforts to recover the waste produced. Its percentage of recovery of waste in 2009 was equal to about 99%.
- > In 2009, the Infrastructure & Networks Division went on with its special program (started in 2005) to decontaminate and dispose of equipment containing PCB-contaminated oils. The program provides for complete removal by 2010 (ahead of the legislative time limit under Legislative Decree 209/99 and art. 18 of Law no. 62 of April 18, 2005).

Decontamination and disposal of equipment containing PCBs exceeding 500 ppm was completed in 2007, ahead of the time limit prescribed by the applicable legislation (2009).

Both power and measuring transformers with a PCB content of 50 to 500 ppm will be totally removed by 2010, despite the fact that the applicable legislation provides for removal at the end of their lifetime.

From the start of the project to the end of 2009, the contaminated equipment (power transformers but also measuring transformers, capacitors, bushing insulators, circuit-breakers, etc.), which were included in the plan, decreased by about 26,000 units.

In **Romania**, in line with its environmental monitoring program, Enel Dobrogea carried out 34 surveys to measure the noise levels of pole-mounted transformers located near homes; the results indicated compliance with legislative limits. Enel Banat made various noise level measurements, which confirmed compliance with the applicable limits. Consequently, the company did not carry out other monitoring activities. In accordance with the PCB disposal program agreed on with local environmental agencies, the company removed 108 PCB - containing

transformers (overall weight: 2,895 t).

Enel Muntenia mitigated noise emissions from some of its installations by: replacing 28 fans of 110/10/6 kV transformers; installing 6 fans and the supply system of 110/20 kV transformers; and replacing public lighting meters. Additionally, under the disposal program, it removed 198 PCB-containing capacitors (weight: 6,930 t).

In **Brazil**, environmental enhancements included: installation of a system to collect both the water from the air conditioning system and the rainwater from the contaminant-free and spill-proof areas of the plant; specific training of the personnel on pruning and cutting of trees (with a view to avoiding unnecessary pruning and deforestation) and introduction of a control system based on a register with the pruned species, the amount of waste produced and the person in charge of the job; projects conducted by the two distribution companies (Ecoelce and Ecoampla) to promote the recycling of waste items by delivering them to collection centers and getting discounts on electricity bills; research into reuse of waste from decontamination of fluorescent lamps, which may be used as raw material in brick manufacturing; development of a project to reuse disused power cables; setting-up of a suppliers' work group with the task of investigating and understanding the lifecycle of projects and taking actions which yield environmental benefits; half-yearly measurement of emissions from vehicles and diesel engine machinery (based on Ringelmann's scale); and, finally, day-time and night-time noise emission monitoring in substations to ensure *compliance* with legislative requirements and mitigate disturbance to the surrounding communities.

In **Chile**, environmental impacts are connected with the activities needed to ensure adequate electricity distribution in concession areas. Therefore, environmental solutions are geared to mitigate these impacts.

As regards prevention of contamination, environmental emergencies may be prevented by standardizing existing processes. Conversely, upon uncontrollable external events, such as dielectric oil spills caused by collisions of vehicles with transformer supports, this is not possible. Indeed, these events, although being the most common cause of environmental emergencies, are independent of the Chilectra's activities.

In **Colombia**, environmental enhancements included: monitoring of SF₆ emissions, reduction of PCBs in the distribution grid, efficient use of waste waters, promotion of recycling, elimination of external PCBs, monitoring and control of separate collection and reuse of waste and, finally, offsetting logged trees by planting tree species in degraded zones.

In **Peru**, a yearly management program is in place to mitigate and eliminate environmental impacts. The main aspects of the program are: supervision of maintenance jobs and construction sites in public areas; this activity is aimed at effectively disposing of the waste produced (especially waste from maintenance and demolition jobs); environmental audits of major contractors; monitoring of water quality, noise levels and electromagnetic fields to check whether they comply with legislative limits; installation of oil collection vats in the oil sampling area of the new power transformers, in order to avoid soil contamination upon spills; monitoring of gas emissions from contractors' vehicle fleets for compliance with legislative limits; implementation of a program of environmental awareness

and training; and vii) waste management in line with internal procedures and the national legislation.

In **Argentina**, maintenance jobs were carried out on the vegetation near distribution lines, bare conductors were replaced and some lines were undergrounded.

In **Romania**, in line with its environmental monitoring program, Enel Dobrogea carried out 34 surveys to measure the noise levels of pole-mounted transformers located near homes; the results indicated compliance with legislative limits. Enel Banat made various noise level measurements, which confirmed compliance with the applicable limits. Consequently, the company did not carry out other monitoring activities. In accordance with the PCB disposal program agreed on with local environmental agencies, the company removed 108 PCB-containing transformers (overall weight: 2,895 t).

Enel Muntenia mitigated noise emissions from some of its installations by: replacing 28 fans of 110/10/6 kV transformers; installing 6 fans and the supply system of 110/20 kV transformers; and replacing public lighting meters. Additionally, under the disposal program, it removed 198 PCB-containing capacitors (weight: 6,930 t).

EN

EN27

Percentage of products sold and their packaging materials that are reclaimed by category.

The Enel Group purchases a broad range of products and raw materials to carry out its activities in the various Countries where it operates. These products and materials are packaged in containers that differ in shape and material. The environmental management policies that Enel pursues in all of its sites and its ISO 14001-certified or EMAS-registered environmental systems (placing emphasis on performance) provide for separate collection of the different types of waste and for recovery of all the packagings. The recovered packagings are divided into the following categories: wood, metals, paper and cardboard, glass and plastics.

For details about the amounts of the different items of waste and of the packagings delivered to recovery operators, the reader is referred to the GRI Content Index on page 10 of the Environmental Report 2009.

COMPLIANCE

EN28

Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.

In **Italy**, Enel Distribuzione was involved in various civil and administrative proceedings. In these proceedings, persons living near portions of the power grid often ask judges to take urgent precautionary measures, requiring Enel to relocate or change the way in which it operates its installations. Plaintiffs allege that these installations represent a hazard, despite the fact that they have been built in compliance with the applicable legislation. In some instances, plaintiffs claimed for damages to their health allegedly caused by exposure to electromagnetic fields. The rulings are usually in favor of Enel.

In its ruling of February 2, 2010, the Council of State quashed the measure taken by the mayor of Lacco Ameno concerning a substation. The Council of State established that: the substation did not represent a hazard; the limits to be complied with were those established by the State (Decree of the President of the Council of Ministers of July 8, 2003); and regional laws (in this case, Law 13/2001 of the Campania Region) could not derogate from the above national legislation.

Always in Italy, in electricity generation, the following litigations were recorded in 2009:

- > former Bergamo Business Unit, Carona Dam - alleged damage to aquatic flora and fauna owing to outflow of silt upon emptying operations. So far, only a request to identify the person to be investigated has been made.
- > Brindisi Sud plant (Brindisi) - two criminal proceedings for soil pollution (claim for damages arising from pollution of natural resources) and waste (failure to rehabilitate the site where the plant is located).
- > Fusina plant (Venice) - alleged wrongdoing in connection with transport of flyash to a landfill without the prescribed authorization.
- > Genova plant - notice of investigation for non-compliance with discharge authorization prescriptions.
- > Leghorn plant - refund of damages to cars parked in the plant area owing to depositions from the plant.
- > Lucca Business Unit - Verdiana Dam - fire and consequent detection of eternit materials. Notification of violation of articles 256 and 257 of Legislative Decree 152/06.
- > Mercure plant (Cosenza) - investigations on alleged illegal waste disposal, air pollution and unintentional disaster; investigations on alleged participation in abuse of power (failure to conduct the impact assessment for a protected area); appeal against the impact assessment of the biomass conversion project.
- > Panarea plant (Messina) - proceeding arising from a complaint about emissions and immissions of noise and gaseous pollutants into the environment.
- > Pian Castagnai (PC2, PC3, PC4 and PC5) plants (Grosseto) - claims for damages to health due to alleged emissions of harmful substances (coming from the plants) into the atmosphere (6 legal actions).
- > Geothermal well of the Pian Castagnai 4 (PC4) plant (Grosseto) - claim for damages and criminal proceeding for unintentional disaster resulting from the blow-out of geothermal well PC4 in September 2000; the defendants were acquitted in first instance because the facts "did not represent a crime".

- > Porto Marghera plant (Venice) - notification of wrongdoing for allegedly violating rules on waste waters.
- > Porto Tolle plant (Rovigo) - air pollution due to emissions from the plant. On June 9, 2009, the Court of Appeal of Venice partially revised the first-instance judgment rendered by the Court of Adria on March 31, 2006. The Court of Venice acquitted the former members of the Board of Enel Produzione SpA. Board because they did not commit the facts and excluded environmental damage. Consequently, the Court revoked the provisional award of damages paid to public authorities; the company's employees were convicted to moderate penalties for occasional misconduct and the damages to be paid to non-public parties were halved. Both the Public Prosecutor and the aggrieved parties acting to recover damages filed an appeal with the Court of Cassation against the above judgment.
- > Porto Tolle plant (Rovigo) - criminal proceeding for air pollution and damage due to emissions from the plant; investigations (subsequently dismissed) over alleged participation in manslaughter due to pollutant emissions; claim for environmental damages due to releases into water bodies.
- > Sondrio Business Unit - complaint about water releases.
- > Termini Imerese plant (Palermo) - litigation deriving from investigations conducted by the Provincial Health Unit of Palermo after outflow of asbestos particulates from a steam manifold.
- > Torrevaldaliga Nord plant (Rome) - criminal proceeding for air pollution.
- > Vittorio Veneto Business Unit (Treviso) - Forno di Zoldo plant - litigation over soil and gravel dumping into surface waters: the end of the preliminary investigations was notified, but no preliminary hearing was set.
- > Vittorio Veneto Business Unit (Treviso) - Soverzene, Mis-Agordo, Ansiei-Santa Caterina, Alleghe, La Stanga, Pontesei, Arsiè, Pelos, Malga Ciapela plants - criminal proceeding for damage to flora and fauna owing to failure to release the minimum in-stream flow into the Piave river.

In **Spain**, in electricity distribution, the following litigations were recorded in 2009:

- > Generalitat de Catalunya imposed a penalty for damage upon supply of electricity to the city of Barcelona on July 23, 2007. An appeal for suspension of the penalty was lodged. On April 8, 2009, the Tribunal Superior de Justicia of Catalonia upheld the appeal. Suspended penalty: 10 million euro.
- > Three judicial proceedings are pending for damage due to forest fires in Catalonia. The proceedings might lead to a conviction to pay damages. Amount likely to be paid: 44 million euro.

In nuclear power generation, the following litigations were recorded in 2009.

- > With its ordinance of May 11, 2009, the Ministry of Industry, Tourism and Trade imposed four penalties on Endesa Generación SA for release of radioactive particles from the Ascó I plant in December 2007. An appeal against the ordinance was lodged before the Audiencia Nacional. At the same time, the Director-General of Energy Policy and Mines imposed two penalties for violations connected with the same incident. An administrative appeal was filed and hearing on the case is expected. Appealed ordinance: 15 million euro; appeal pending hearing: 90,000 euro.

In **Argentina**, in electricity distribution, the following litigations were recorded in 2009:

- > Seven litigations are pending for electromagnetic pollution due to the high-voltage line of the Dock Sud plant.

In electricity generation, the following litigation was recorded in 2009:

- > claim for damages arising from contamination of the river providing cooling water to the Dock Sud plant.

In **Brazil**, in electricity distribution, the following litigations were recorded in 2009:

- > Failure to send the data required by specific legislation to the State's environmental bodies. Pending hearing: 800 euro.
- > Administrative proceeding pending for unauthorized cutting of trees along a public road in the town of Niterói. Pending hearing: 98,400 euro.
- > Second administrative proceeding pending for unauthorized cutting of trees along a public road in the town of Niterói. Pending hearing: 24,600 euro.
- > Third administrative proceeding pending for unauthorized cutting of trees along a public road in the town of Niterói. Pending hearing: 12,300 euro.
- > The Federal Public Prosecutor initiated five judicial proceedings (of which three in the town of Petrópolis, one in the city of Niterói and one in the Municipality of Angra dos Reis) for lack of licenses for distribution grids.
- > Precautionary measures in the Angra dos Reis region: the Federal Public Prosecutor challenged an environmental license obtained by the distribution company (Ampla SA) for works in a protected area.
- > Civil proceeding for problems connected with electricity supply in the town of Saquarema.
- > Claim for damages arising from the trimming of vegetation in the city of Paraty.
- > Civil proceeding for logging of vegetation in the town of Trajano de Moraes.
- > Fine for lack of environmental license for a distribution grid. On Dec. 21, 2006, Ampla SA lodged an administrative appeal. The fine (1,230 euro) was paid in 2009.

In hydro power generation, the following litigations were recorded in 2009:

- > Administrative proceeding concerning groundwater and surface waters. An administrative proceeding is pending against the Braço Norte plant for discharge of oil from its oil/water separator. The complaint was filed by Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais.
- > Administrative proceeding concerning biodiversity and landscape. In 2003, the environmental regulatory agency SEMA (Secretaria Especial do Meio Ambiente) instituted an administrative proceeding concerning sediments created by the Culuene plant basin. Pleadings were submitted and the proceeding is still under way.

In **Chile**, in hydro power generation, the following litigations were recorded in 2009:

- > The Municipality of Nacimiento claimed for about 5 million euro of damages and remedies (protection and mitigation measures with a total cost of 2 billion euro) for alleged environmental damage arising from the operation of the Pangue plant (discharges in July 2006). On August 28, 2009, a first-instance judgment in favor of Pangue was rendered. The grounds of the judgment were as follows: "The acts of Empresa Eléctrica Pangue SA do not represent wilful misconduct or gross negligence as the company strictly complied with

legal and administrative legislation. Furthermore, there is no causal link between the damage and the acts of the company". The Municipality of Nacimiento lodged an appeal, but the likelihood of losing the case appears to be remote.

In thermal power generation, the following litigations were recorded in 2009:

- > Tal Tal plant – administrative penalty for incorrect operation of the waste water treatment system. Penalty: 5,200 euro.
- > Bocamina plant – administrative penalty for emission of suspended particulates and non-compliance with maximum night-time noise levels: 5,200 euro.

In electricity distribution, the following litigation was recorded in 2009:

administrative penalty imposed on the Chilectra Company for excessive noise from a substation. Penalty: 1,000 euro.

In **Slovakia**, in thermal power generation, the following litigations were recorded in 2009:

- > 2 new proceedings, 5 dismissed proceedings and 6 pending proceedings; the proceedings arose from claims filed by parties working in the farming and forestry sector for damages to their production due to emissions from the Nováky and Vojany plants.

In **Russia**, in thermal power generation (Reftinskaya plant), the following litigations were recorded in 2009:

- > Administrative penalties for the following reasons: the plant was not licensed to release freon and did not keep records thereof; the plant was not authorized to operate eight air suction systems along the fuel conveyor belts; air, soil and groundwater quality in the area adjoining the ash storage site and the boiler clean-up water tank was not adequate. Penalty: 2,980 euro.

In **Bulgaria**, the following litigations concerning soil, groundwater and surface water were recorded in 2009:

- > Penalties for discharge of water and ash into the Sokolitza river, owing to leaks from the handling system (see commentary on indicator EN23 on page 152 of this chapter); an ordinance of the Regional Governor imposed the inspection and possible clean-up of the Kumlia river bed (however, the river bed deposits demonstrated not to be due to the activity of the Maritza plant). Penalty: 13,386 euro.

TRANSPORT

EN29

Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.

Enel's activities cause some impacts that are due to: procurement of fuels, products and services; transfers of personnel from home to work and back and for duty purposes; owned vehicles; and, finally, transport of its own "products", i.e. electricity and gas.

> Fuels may be distinguished into solid, liquid and gaseous. Solid fuels mainly include coal, brown coal and biomass. The transport of these fuels is generally associated with the transport of their combustion products, i.e. gypsum and ash. Most of these fuels and of their combustion products are transported by sea and river by means of large ships (coal or biomass tankers) and barges, then by means of conveyor belt systems. During handling from/to the plant site and storage, loading and unloading into/from tankers and barges in docks and in the plant site, some particulates (from both fuels and combustion products) may be released. However, the amount of these particulates may be significantly reduced by using wetting techniques, closed coal bunkers and closed ash and gypsum storage sites and depressurization of sealed conveyor belt systems. Any coal possibly spilled into water does not cause problems to ecosystems as it is an inert material.

> The siting of power plants is often dependent on the location of the mines from which fuel is extracted. Proximity to these mines decreases **fuel transport costs and impacts**. In this case, use is made of conveyor belts. For biomass, use is made of sea transport (ships or tankers) or surface transport (roads and railroads) for some tenths of kilometers. The impact of handling and transport is due above all to: primary energy or electricity consumption, emissions, consumption of raw materials and production of waste. In general, road transport will have a higher impact than sea or river transport.

> The Enel Group separately monitors the **impacts of handling in harbors and in storage sites**. Handling inside the plant sites is regarded as auxiliary to production or generation. Therefore, in this case, the impacts are not separately recorded, but posted together with all the impacts generated in the same site.

The impact of gas pipelines (for both supply and sale) and oil pipelines (for supply) may be of two types:

> **Impact on ecosystems**. The impact on terrestrial and marine flora and fauna is due to the direct damage caused by the construction and subsequent maintenance of the gas pipeline.

Near the land routes of gas or oil pipelines, buffer zones will be left to permit their maintenance, and the growth of tree vegetation will be controlled.

> **Efficiency of the transmission or transport grid**. Gas losses due to transport along the gas pipeline grid are determined on the basis of standard factors and not directly. These losses may be estimated at roughly 0.65%/yr.

> The impact of Enel's vehicle fleet is due to polluting emissions into the atmosphere. The data on Enel's vehicles are reported in the tables of page 181 at the end of this chapter.

With regard to the other pollutants, Enel strived to mitigate their impact by converting all the vehicles of its fleet in Italy into Euro 4-certified vehicles. In the sites with ISO 14001-certified or EMAS-registered environmental management systems, Enel assesses the direct impact caused by the vehicles used by its suppliers and contractors, rewarding the most environmentally virtuous ones (e.g., all other conditions being equal, giving preference to ISO 14001-certified or EMAS-registered companies).

The impacts of power lines may be distinguished into three main types (excluding specific events, e.g. the crossing of streams):

> **Visual impact possibly caused by the power line (cables and supports)**. In building new grids and renovating old ones, Enel adopts two main strategies of mitigation: i) undergrounding of low-, medium- and high-voltage lines; and ii) use of helical twisted cables (elicord) in low- and medium-voltage lines; the cable consists of three insulated and twisted phases. Underground cables are used in built-up areas. The use of twisted cables in overhead lines mitigates the overall visual impact because: i) the cable is less visible than three separate conductors; and ii) the cable may cross forested areas, fully integrating into the vegetation thanks, among others, to its smaller supports.

Overhead power lines may consist of bare conductors or cables (conductors surrounded by an insulating sheath). For safety reasons, bare conductors cannot be used in underground lines. The percentage of cables in power lines gives a measure of the mitigation of their visual impact.

> **Impact on tree vegetation**. This impact is due to eradication and cutting of tree vegetation upon construction and subsequent maintenance of the power line. As twisted cables for overhead lines can cross forested areas, they can reduce this impact considerably.

The data on the percentage of cables in power lines are reported in the tables on page 181 of this chapter.

OVERALL

EN30

Total environmental protection expenditures and investments by type.

Enel records its environmental expenditure according to a classification system based on the criteria adopted by Eurostat and Istat (the latter being the Italian Statistical Institute). Under Istat's criteria, "environmental protection expenditure" is defined as the costs incurred for preventing and mitigating environmental pollution and degradation and for restoring the quality of the environment, whatever the origin of such costs (legislation, agreements with local governments, corporate decisions, etc.). It excludes expenditure incurred for minimizing the use of natural resources, as well as for activities that, albeit environmentally beneficial, primarily satisfy other requirements, such as health & safety in workplaces. The term "expenditure" has always an algebraic sense, as it may also refer to revenues, such as those which may accrue from waste delivery to recovery operators.

The environmental protection expenditure incurred by the overall Group in 2009 was as follows:

- > 194 million euro of investments;
- > 395 million euro of current expenditure.

In particular, the environmental investments of the various Divisions were as follows.

- > In the Generation & Energy Management Division, the environmental investment amounted to about 47 million euro.
- > In the Infrastructure & Networks Division, the environmental investment was equal to about 40 million euro. About 3 million euro were spent on disposal of PCB-containing equipment and about 27 million euro on replacement of bare conductors with insulated cables in power lines. The reduction of the environmental investment with respect to 2008 (65 million euro) is due a less intense activity of disposal of PCBs, most of which were eliminated in previous years.
- > In the International Division, the environmental investment was equal to 11 million euro.
- > In the Renewable Energy Division, the environmental investment was equal to 16 million euro.
- > In the Iberia & America Latina Division, the environmental investment was equal to 81 million euro; the deviation with respect to 2008 (58 million euro) is chiefly due to the full consolidation of Endesa in 2009 (in 2008, it was equal to 67.05%).

Among the Divisions' investments on existing thermal power plants, mention is to be made of:

- > major improvements to SO₂, NO_x and particulate emission abatement systems (upgrades to comply with emission limits and modernization of desulfurizers, denitrification systems, electrostatic precipitators and particulate abatement systems in coal-fired power plants);
- > installation of new low-NO_x burners;
- > revamping and remediation of some tanks used in fuel-oil storage & handling and improvements of passive protection systems (containment basins in fuel storage sites and fire prevention systems);
- > renovation and modernization of waste water treatment systems (treatment systems for desulfurizer drains, waste and sewage waters);
- > new systems for flue gas monitoring and analysis;
- > characterization of contaminated sites, planning and implementation of rehabilitation projects;
- > morphological, hydrographic and landscape restoration in mining areas;
- > remediation of asbestos-containing materials;
- > decontamination of PCB-containing oils and machinery.

The investments on existing hydro power plants were as follows:

- > upgrades of transformer oil collection tanks;
- > improvements of discharge outlets;

- > desilting of basins;
- > consolidation of some channels and of landslide-prone slopes;
- > improved methods of collection of materials removed from intake structure trashracks;
- > abatement of noise in installations and replacement of noisy generators;
- > construction of infrastructure to safeguard the faunal communities living near installations;
- > better integration of installations into the environment;
- > retrofitting of intake structures to release the minimum sustainable flow;
- > construction of fish ladders;
- > testing of a new microorganism-based system for clean-up of channels.

The Iberia & Latin America, Infrastructure & Networks and International Divisions invested on both new and existing electricity distribution installations:

- > disposal of PCB-contaminated equipment;
- > use of cables in power lines to protect biodiversity and landscape; i) the share of investments in medium-voltage (MV) and low-voltage (LV) lines in areas of low population density, i.e. the differential between the cable solution and the bare-conductor one (MV) and between the underground cable solution and the overhead cable one (LV), is considered to have an “environmental” nature; all the investments in high-voltage (HV) lines, i.e. the differential between the cable solution and the bare-conductor one, are considered to have an “environmental” nature.

The items of current expenditure of Enel's Divisions in 2009 are reported below.

- > Generation & Energy Management spent 103 million euro vs. 224 in 2008. The difference may be ascribed to the sharp decrease in the use of fuel oil. Indeed, this expenditure may be ascribed to extra costs of fuels, i.e. extra costs incurred for using low-sulfur fuels to comply with environmental regulations in place of the otherwise usable fuels. For each plant which may be fired with fuel oil (or fuel oil/natural gas), these extra costs are computed from the difference between the cost incurred for using low- and very low-sulfur fuel oil (or natural gas) and the cost of a corresponding amount of medium-sulfur fuel oil.
- > The current expenditure of Iberia & Latin America was 76 million euro (41 in 2008). In this case, the deviation between the two years is mainly due to the full consolidation of Endesa in 2009 (67.05% in 2008).
- > The current expenditure of Infrastructure & Networks was 11 million euro (13 in 2008).
- > The International Division allocated 192 million euro to current expenditure (174 in 2008), of which 146 million euro for treatment and permanent storage of spent nuclear fuel (high-level radioactive waste) and for disposal of equipment.
- > The Renewable Energy Division allocated roughly 12 million euro to current expenditure. This expenditure was incurred for: removal of materials from trashracks and their disposal; fish restocking; periodical monitoring, operation and maintenance of hydraulic works to keep them efficient and without risks to the environment; environmental awareness, training and education of the personnel. In geothermal activities, costs for air quality rose owing to the entry into operation of new AMIS systems, involving higher requirements of personnel and expendables (especially sodium hydrate) for their operation.

Electricity generation accounted for the highest share (95.6%) of Enel's current environmental expenditure in 2009.

The remaining items covered environmental protection activities which were in-sourced or outsourced: operation and maintenance of environment-related equipment and systems; waste disposal; introduction and operation of environmental management systems, personnel of Enel and of contractors involved in these activities; environmental awareness, training & education, etc. They also include the costs of environment-dedicated support personnel, i.e. the members of the personnel who provide services to multiple units, even if they are engaged in the same industrial business activity. Indeed, the intellectual tasks that these members of the personnel perform in the environmental field are supposed to give support to industrial operations only.

It is also worth noting the increase in the following cost items: industrial clean-up (waste water handling and removal); disposal of waste, especially of coal ash (affected, among others, by the crisis of the building industry) and of sludge (affected by the unavailability of recovery installations).

In 2009, the Research Technical Area (Engineering & Innovation Division) spent about 86 million euro on development and demonstration of innovative technologies, as part of Enel's Technological Innovation Plan (650 million euro in the 2009-2013 period). The research expenditure items were as follows: fossil-fired power generation (46%, in particular CCS, hydrogen, emission abatement and enhanced efficiency of power plants), renewables (50%, in particular photovoltaic and thermodynamic solar, geothermal, wind and biomass power generation), power-driven mobility and development of smart grids (4%). The research and innovation activities carried out in 2009 will help curb CO₂ emissions from fossil-fired power generation (increased efficiency of conventional plants and development of carbon capture & storage techniques), increase renewable power generation and develop smart grids. The consequent decrease in CO₂ emissions cannot be inferred directly, as the advantages will have to be measured in the long term and will be highly dependent on evolution of the legislation.

For details, the reader is referred to the commentary on Focus on Research & Innovation on page 103 of this chapter.

Other items of expenditure, accrued in financial year 2009 and not explicitly allocated to environmental protection, were separately recorded:

- > € 33 million (at Group level) - for purchase of carbon dioxide emission permits to cover the deficit between allocated emissions (under Directive 2003/87/EC on emission trading) and actual emissions;
- > € 426 million – for purchase of Green Certificates to fulfill the renewable quota obligation.

Our commitment
to nuclear energy

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The task of the energy industry is to provide sustainable, reasonably-priced and secure energy supply, using the best available technologies and investing in research and innovation so as to make existing technologies more efficient and develop new ones. These are the drivers of Enel's renewed national and international interest in nuclear power generation. In particular, the relaunching of nuclear power is based on strategic considerations of energy independence and fight against pollution and climate change. Economic considerations - volatility of the costs of conventional fossil sources related to the oil price (e.g. gas) and political instability in the main oil and natural gas supplying countries - suggest the need for Europe, and even more for Italy, to have a sustainable and more balanced energy mix.

Abatement of CO₂ emissions

Nuclear energy can provide a major contribution to the struggle against climate change. The operation of a nuclear power plant does not produce CO₂ emissions. If the full lifecycle of the plant (including construction, decommissioning and nuclear fuel cycle, starting from extraction of the source mineral) is considered, nuclear energy - even compared to renewables - is one of the sources with the lowest emissions of CO₂-equivalent. Hence, taking into account the challenges of the Kyoto Protocol and of the consequent "20/20/20" European policy ⁽¹⁾, nuclear energy is a mandatory option.

(1) By 2020: at least 20% reduction of greenhouse gases; 20% share of renewables in EU's energy mix; 20% reduction of energy consumption by increasing energy efficiency.

Lower dependence on imports

Italy suffers not only from an unbalanced generating mix, but also from almost complete dependence on imports (78% of total generation):

- > imports of electricity (mainly France, Switzerland and Slovenia) account for 12% (43.4 TWh);
- > imports of fuels from which electricity is produced account for 66% (230 TWh): gas 66%, coal 18%, oil/other 16%.

This energy mix does not guarantee the supply of electricity at competitive prices and threatens the security of our supplies, since it depends on few countries, most of which with geopolitical instability. This poor diversification of sources and supplying countries makes Italy particularly vulnerable to global energy market uncertainties. By contrast, as compared to gas and oil, the uranium resource is more evenly distributed and available in geopolitically stable countries, such as Australia and Canada.

Economics

In the Italian energy system, the generating mix is highly unbalanced towards the most expensive sources:

- > more than 40% of electricity (roughly 150 TWh) is generated by gas-fired combined-cycles;
- > renewables have an about 19% share in total generation (hydro power has a significant share);

- > oil-, gas- (excluding CCGT) and coal-fired power plants together account for roughly 30% of Italian generation;
- > finally, imports cover about 12% of total demand.

Therefore, 66% of Italian electricity is generated from gas and oil, more than twice the European average (27%).

Owing to its unbalanced generating mix, Italy's energy bill is on average higher than the one of our European neighbors.

This is mainly due to: high generation costs of gas-fired combined cycles; poor reliance on latest-generation coal; and no nuclear power plants in our portfolio.

(2) Under a scenario where the cost of oil is around USD 60/bbl and the price of CO₂ allowances is equal to about € 25/tonne.

Reliance on the advanced third-generation nuclear power technology would reduce the generation cost by about 20% ⁽²⁾ as against the one of combined-cycle gas-turbine (CCGT) plants.

In a scenario where oil and CO₂ allowances have high prices, the cost-effectiveness of this source is significant.

Always in terms of cost-effectiveness, it is worth pointing out that the share of fuel in the generation cost is very limited:

- > a 100% increase in the cost of uranium corresponds to an increase of as little as 8% of the generation cost;
- > for a combined cycle, a 100% increase in the cost of fuel corresponds to a 70% increase in the generation cost.

This infers that the only viable solution is a deep restructuring of Italian generating mix, so as to enable Italy to harness all currently available technologies.

In the above scenario, introducing nuclear into the national portfolio of power plants makes the Italian energy source mix more balanced and sustainable. Otherwise, our country will be exposed to the higher costs connected with volatility of fossil fuels and non-compliance with its environmental targets.

Targets of the Italian Government

Aware of the advantages arising from Italy's return to the nuclear option, the Italian Government decided to relaunch a nuclear power program. The target of the program is to achieve a 25% share of nuclear power in the coverage of Italian domestic requirements by 2020 (about 100 TWh/yr on a total of 400 TWh/yr). This means about 13,000 MW of new nuclear capacity.

As a result of this governmental decision, the Italian Parliament issued Law 99/09 on July 23, 2009. This law (provisions on development and internationalization of companies as well as on energy matters) provides that nuclear power plants shall be designated to be of "primary interest to the State" and enables the Government to issue decrees which shall define:

- > criteria for the siting of nuclear power plants in Italy and for fuel and radioactive waste storage systems;
- > systems for final storage of radioactive waste and materials;

- > authorization procedures for construction, operation and decommissioning of nuclear power plants, as well as subjective requirements that operators shall fulfill;
- > compensation measures in the areas involved (households, companies and local governments);
- > actions of awareness of and communication to local communities;
- > penalties to be imposed for violations of the provisions of the legislative decree.

After the enactment of this law, an implementing decree covering the above-described topics was approved by the Council of Ministers on February 10, 2010.

Italy-France agreements

On the occasion of the Italy-France summit, in the presence of French President Nicolas Sarkozy and Italian Prime Minister Romano Prodi, Enel and EDF signed an agreement, which marked the beginning of cooperation activities between the two companies.

The agreement covers the following aspects:

- > Enel's participation (12.5% stake) in the construction of one EPR unit (1,600 MW) in the Flamanville site;
- > specialist on-the-job training of Enel's personnel by EDF on engineering, construction and operation of the Flamanville 3 project; for this project, about 60 engineers of Enel are already working on a full-time basis in the site;
- > Enel's option to co-invest in the construction of the subsequent 5 EPR units that EDF will develop in France;
- > Enel's obligation to offer EDF the option of participating in investments in new nuclear power projects based on the EPR technology and developed by Enel, on a MW-by-MW basis with respect to Enel's investment in nuclear plants in France.

The cooperation program, which started in 2007 and continued in 2009, has enabled Enel to develop nuclear personnel together with one of the companies with the most expertise and leadership in the sector on the international scale.

In 2009, further accords channeled this cooperation towards the development of nuclear power in Italy. On February 24, Enel and EDF signed a Memorandum of Understanding on energy cooperation, which laid the foundations for a joint program of nuclear power development in Italy. The MOU represents a leap forward towards Italy's return to the use of this technology.

After completion of on-going legislative and technical procedures, the two companies will undertake to design and build at least 4 advanced third-generation EPR units, the first of which will go into operation by 2020.

The agreements provide, among others, for:

- > construction of the units under the "architect-engineer" model, similar to the one used in the management of the Flamanville project;
- > Enel's obligation to use the EPR technology in Italy, only if it is marketed by EDF; and EDF's obligation to market the EPR technology in Italy only with Enel.

Development of nuclear power generation in Italy

As mentioned in the February 2009 agreement, a joint venture with equal shares ("Sviluppo Nucleare Italia") was established between Enel and EDF as part of the nuclear power development project. The purpose of the joint venture is to carry out a detailed feasibility study so as to obtain the final investment decision from the Boards of the two companies. Sviluppo Nucleare Italia is a limited liability company incorporated under the Italian laws and headquartered in Rome.

Enel also expressed its intent to participate in the extension of the previous nuclear power agreement with EDF, for construction of another 5 EPRs in France, starting with the one of recently authorized by the French Government in Penly.

These accords (a development of the previous agreements of November 30, 2007) enable Enel to benefit from EDF's support in its project of relaunch of nuclear power in Italy. Indeed, EDF is an industrial partner with internationally recognized experience and reputation in this sector and with the highest installed capacity in the world (63 GW): 58 in-service reactors and 1,640 reactor-years of experience.

Why EPR

Enel's choice of the EPR is based on the typical features and excellence of this technology.

EPR is the only advanced third-generation technology which relies on:

- > 3 projects at an advanced stage of implementation (Olkiluoto-3 in Finland, Flamanville-3 in France and Taishan 1 and 2 in China);
- > 1 project to be implemented soon in France (Penly, commissioning by 2017) and new projects in the United Kingdom (EDF through British Energy);
- > availability of engineering documents for plants and technical specifications for equipment, making it possible to rapidly initiate the suppliers' qualification procedure;
- > a licensing project which involves many safety authorities (ASN in France, STUK in Finland, NII in the UK, NRC in the USA) and which can thus leverage unprecedented safety synergies in the nuclear industry history.

Hence, the adoption of a single technology for all the plants built by Enel and EDF in Italy will exploit economies of scale (procurement of components, operating experience feedbacks, personnel training, spare parts, maintenance choices), optimizing costs and shortening the timescales for the entry into operation of the first unit.

Finally, Enel will be able capitalize on the know-how acquired in participating in the EPR project of Flamanville in France, as part of which Enel's engineering resources have been on-the-job trained since 2007.

EPR safety

The EPR technology results from the evolution of the latest technology and from the experience that engineers and operators at international level (but above all French and German) have acquired in over 30 years (and some tens of thousands of reactor-years) of operation.

In particular, as the EPR is an advanced third-generation technology, it significantly improves the generating efficiency with respect to previous power plants. This means **generating more power with the same amount of fuel and a lower amount of waste**, optimizing the use of fuel and extending the useful life of the plant. But the EPR technology is also intrinsically safer, because it uses passive or highly redundant systems for both extreme incident scenarios (so far not included in the project) and maintenance jobs. In all these cases, the probability of occurrence of extreme events is lower by at least one order of magnitude than the one of present plants.

Even the most catastrophic external events, e.g. impacts of aircraft with combustion of the carried fuel, have been considered since the early stages of the engineering activity: the sensitive components of the plant have a special layout (they are separate and thus not vulnerable at the same time) and a suitable set of prevention and mitigation measures can even guarantee the non-suspension of the plant operation.

The defense-in-depth engineering concept (**multiple independent levels of defense** to prevent hazards to the population and to the environment) was systematically applied also to (internal and external) extreme incident scenarios. In previous-generation reactors, these scenarios were excluded, i.e. limited to the general stages of testing of the completed project. To face these scenarios, operator-controlled systems were improved, the redundancy concept has been extensively and systematically applied to safety systems and reliance was made on a set of active and passive systems which mitigate their effects inside the plant.

Hence, in spite of the very low probability of occurrence of extreme incident scenarios, the EPR technology provides adequate means to mitigate their consequences, even upon failure of prevention actions, by: i) minimizing radioactive releases into the environment; ii) zeroing the possible radiological impact in the vicinity of the plant; and iii) ensuring the safety of the population living near the plant and non-contamination of the surrounding environment.

Form the viewpoint of nuclear waste, the EPR technology sharply decreases the volume of high-level radioactive waste vs. previous-generation reactors, by better exploiting the fuel and redistributing the systems which are in contact with radioactive agents in concentrated areas.

Nuclear training

In the past few years, Enel has reacquired nuclear skills, know-how and expertise abroad, by making targeted investments in: i) **Slovakia**, where Slovenské elektrárne operates Russian-technology plants and two new reactors are being built; ii) **Spain**, where Endesa runs US-technology plants; iii) **Romania**, where the Group participates in the project of doubling of the Canadian-technology plant of Cernavodă; iv) **Russia**, where Enel signed an agreement with Rosatom for joint development of new plants; and, finally, v) **France**, where Enel participates with EDF in the construction of a third EPR (European Pressurized Reactor) in the Flamanville power plant (Normandy).

Nuclear training is intense and rigorous and subject to monitoring, assessment and approval by the World Association of Nuclear Operators (WANO) and the International Atomic Energy Agency (IAEA). Each role within the nuclear organization must meet specific training requirements, which depend on the tasks to be accomplished. In particular, nuclear operators are qualified after an intensive full-time training program, lasting 2 to 3 years and including psychological, theoretical and practical tests. All the members of the personnel are systematically trained and undergo periodical independent assessments.

In Spain and Slovakia, reliance is made on a combination of internal and external training organizations under consolidated agreements.

In **Slovakia**, Slovenské elektrárne provides nuclear training with the support of local nuclear training companies of international standing. At Mochoce, the company also has simulation and training facilities.

In **Spain**, nuclear training is provided by Tecnatom, an internationally accredited training and engineering company which is owned by the Spanish utilities (including Endesa with a 45% stake). Tecnatom has both centralized and local facilities and simulators to respond to the requirements of nuclear power plants.

For Enel's nuclear activities in Italy, the personnel members to be trained are seconded to Endesa, Slovenské elektrárne and EDF. Important opportunities of on-the-job training are offered by Slovenské elektrárne's and Endesa's operating activities, where the resources work in in-service plants.

In the case of EDF, Enel benefits from the "Know-How Transfer Agreement" (KHTA), which makes part of the agreements on Enel's investment in Flamanville 3. Under this agreement, EDF trains Enel's personnel on engineering and operation tasks. So far, 54 persons have been seconded to EDF. In 2010, this number will increase further. Under the same agreement, the personnel members seconded to France are investigating specific topics and drafting documents to disseminate the knowledge acquired.

In the meantime, arrangements are being made to create an Italian nuclear training facility, relying on in-house training resources, on Enel's University and on external suppliers.

In each site, hiring and appropriate induction of graduates are important themes. In this regard, Enel is cooperating with State Universities to stimulate the education of students on nuclear engineering, mechanics, electrical engineering, monitoring & control, and to improve curricula, offer scholarships and prizes for graduates. In 2006, after investments in Slovakia that brought nuclear assets back into Enel's portfolio, the Nuclear Technical Area was set up. Since then, this Area has notably increased its human resources, meeting from time to time the requirements connected with Enel's entry into new nuclear businesses (e.g. Endesa and agreement with EDF) and conducting activities of nuclear development and integration in Italy. Other engineers are currently seconded to the international offices of IAEA and WANO, where they perform tasks concerning the safe operation of nuclear power plants, e.g. WANO's peer reviews or IAEA's OSART missions, where a group of experts analyzes in detail a nuclear power plant and formulates suggestions for optimizing safety and performance.

Research

With the growing role of nuclear power plants in its generating mix, Enel is increasingly aware that the sustainability of this energy source largely depends on investment in research. This investment is imperative to develop and maintain scientific and industrial skills for safe operation of nuclear power plants.

Therefore, Enel is defining its research strategy along the following lines:

- > on one hand, Enel intends to participate as a leader in the relaunch of nuclear research in Italy, so as to restore a sound wealth of knowledge, which is imperative for the new Italian nuclear program;
- > on the other hand, Enel is moving towards the integration of its resources at Group level, in particular by coordinating the dialogue between its Spanish and Slovak partners, with the goal of actively taking part in this process with its own resources.

The company of the Group which mostly invests in nuclear research is Endesa, with a yearly budget of about € 3 million. This investment is divided into various areas, but its key goals are the extension of the lifetime of plants and operating excellence, with priority to nuclear safety and radiological protection of workers and populations. Another goal is to assess technologies for possible new plants.

The resources that Endesa allocates to nuclear research are concentrated on participation in the Spanish national research program (jointly with research centers, universities, regulatory authorities and other companies of the sector), as well as in European and American programs. In this way, Endesa can reap the benefits of a multiplier effect, with major results going well beyond those attainable in an isolated way.

Slovenské elektrárne is working to set up a national excellence center, which will accommodate research activities conducted by universities, research centers and companies, and which may act as an interface with the European Union. The primary aim of this center is to provide an educational venue for young researchers and

technical specialists. Other aims are to provide the necessary support to the operation of plants and, finally, to play a more significant role in EU's objectives of development of advanced nuclear technologies.

Safety awareness and radioactive waste management

The Enel Group is associated with the Institute of Nuclear Power Operations (INPO) through Slovenské elektrárne and with the World Association of Nuclear Operators (WANO), two international entities of crucial importance to ensure the process of continuous improvement and to give impetus to the dissemination of nuclear best practices. Furthermore, Enel seconded one member of its personnel to IAEA (International Atomic Energy Agency). The agency, working under the aegis of the UN, is in charge of monitoring civilian nuclear safety and averting the risk of nuclear proliferation.

Nuclear safety activities are regularly conducted by Slovenské elektrárne and Endesa. Examples are: quality management of processes, radiation protection and nuclear plant safety oversight. The latter translates into continuous monitoring of safe plant operation, so as to provide the top management of the Group with a systematic picture of its plants, favoring the exchange of best practices and the continuous improvement of plant safety. Moreover, international committees of experts conduct regular and independent audits of Endesa's and of Slovenské elektrárne's plants, thus integrating the processes of nuclear oversight of multinational groups.

In Slovakia and in Spain, radioactive waste is not managed by Slovenské elektrárne and Endesa but by external companies. These companies are paid from a special fund set aside during operation of the plants.

In **Slovakia**, the activities of radioactive waste and spent fuel management are entrusted to Javys, a State-owned company which is also responsible for plant decommissioning.

- > Medium- and low-level radioactive waste (decay time: 20-30 years for low-level and 300 years for medium-level) coming from nuclear plants that are in service or being decommissioned - just as the radioactive waste coming from research centers, laboratories and hospitals - is conditioned (via vitrification and other processes). Then, it is stored in the national storage facility, which has been active since 2001 and which is located in the proximity of the Mochovce plant.
- > Conversely, for high-level radioactive waste (decay time: thousands of years), including spent fuel, no final geological storage site is yet available. At present, after completing its cycle, the fuel is stored in the plant pools for about three years and then delivered to a temporary storage facility located near Bohunice. A study is under way on the creation of a final geological storage site, to become operational in about 30 years.

In **Spain**, the situation is very similar to the Slovak one. Radioactive waste management and decommissioning activities are assigned to the Enresa state-owned company.

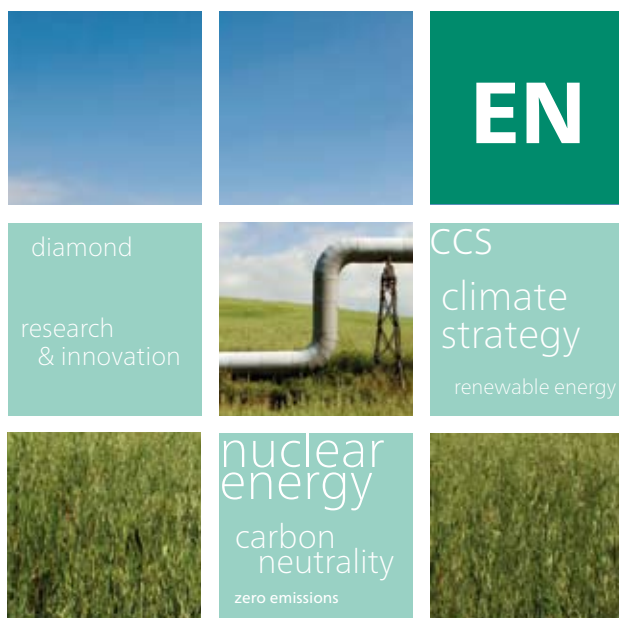
- > Medium- and low-level radioactive waste is appropriately treated and then stored in the final storage site of El Cabril, in the province of Cordoba (Andalusia).

> High-level waste, mostly consisting of spent fuel, is provisionally stored in pools or dry storage facilities in the sites of origin. A study on a centralized, above-ground, temporary storage facility (where the high-level waste may remain for 60 years) is being conducted. The facility is planned to adjoin a technological park, a center of excellence for nuclear research and development in the country. In 2010, the location will be selected. The temporary storage facility is expected to be built and to go into service within short timescales.

The temporary storage facility will make it possible to defer decisions about the management of spent fuel, which may be placed in a final geological storage site or reprocessed and used in fourth-generation reactors, depending on availability of new technologies.

It is worth pointing out that the content of fission products in the spent fuel is as little as about 3%. The remaining components are: uranium (96%) and plutonium (a by-product, about 1%). Both the residual uranium and plutonium may be reprocessed to produce new fuel.

At any rate, all waste management activities are carried out under quality criteria and standards, in line with the best practices of the sector, which safeguard the environment, the population and future generations.



The Numbers

KPI	UM				%	Boundary
		2009	2008	2007	2009-2008	2009-2008
ENVIRONMENTAL MANAGEMENT SYSTEM						
EN14 Environmental certification						
Coverage of EMAS registration	(%)	50.3	52.4	51.4	-2.2	-4.1 Italy
Coverage of ISO 14001 certification	(%)	89.4	89.6	88.6	-0.2	-0.2 Italy
EN30 Research and innovation						
Technological innovation ⁽¹⁾	(million euro)	86.0	38.9	31.1	47.1	121.3 Italy
Research personnel	(n.)	208	185	180	23	12 Italy
EN30 Environmental expenditure						
Environmental expenditure	(million euro)	227	376	432	-149	-39.7 Italy
Total current environmental expenditure	(million euro)	125	259	279	-134	-51.7 Italy
Total environmental investments	(million euro)	102	117	153	-15	-12.8 Italy
Environment-dedicated personnel	(n.)	208	193	176	15	7.5 Italy
Safety/security systems						
Oil tanker inspections	(%)	100	100	100	-	- Italy
LNG tanker inspections	(%)	100	100	100	-	- Italy
Coal tanker inspections	(%)	100	100	100	-	- Italy

KPI	UM	2009	2008	2007	2009-2008	2009-2007	Boundary
ENERGY EFFICIENCY OF THE GENERATING MIX							
Generating mix							
Net maximum electrical capacity of thermal power plants	(MW)	24,855	24,862	25,005	-7	0.0	Italy
Coal	(MW)	6,212	5,575	4,959	637	11.4	Italy
CCGT	(MW)	5,946	5,946	5,962	0	0.0	Italy
Oil/gas	(MW)	12,698	13,342	12,083	-644	-4.8	Italy
Net maximum electrical capacity of renewable power plants	(MW)	15,565	15,461	15,391	104	0.7	Italy
Hydro	(MW)	14,431	14,424	14,401	7	0.0	Italy
Wind	(MW)	429	362	315	67	18.4	Italy
Geothermal	(MW)	695	671	671	24	3.6	Italy
Other	(MW)	10	4	4	6	167.5	Italy
Overall net maximum electrical capacity	(MW)	40,420	40,323	40,396	97	0.2	Italy
Net generation of thermal power plants	(TWh)	50.2	64.7	67.3	-14.5	-22.4	Italy
Coal	(TWh)	28.5	29.4	28.6	-0.9	-3.0	Italy
CCGT	(TWh)	17.1	25.8	23.3	-8.7	-33.6	Italy
Oil/gas	(TWh)	4.5	9.5	15.1	-5.0	-52.1	Italy
Net generation of renewable power plants	(TWh)	33.8	31.6	26.9	2.2	7.0	Italy
Hydro	(TWh)	28.3	26.0	21.2	2.4	9.1	Italy
Wind	(TWh)	0.5	0.5	0.5	0.0	6.9	Italy
Geothermal	(TWh)	5.0	5.2	5.2	-0.2	-3.5	Italy
Other	(TWh)	0.002	0.002	-	-	-	Italy
Overall net generation	(TWh)	84.0	96.3	94.2	-12.3	-12.8	Italy
Units of thermal power plants	(n.)	134	135	133	-1	-0.7	Italy
Coal	(n.)	20	19	18	1	5.3	Italy
CCGT	(n.)	15	15	15	-	-	Italy
Oil/gas	(n.)	32	33	35	-1	-3.0	Italy
GT	(n.)	27	26	25	1	3.8	Italy
Diesel	(n.)	40	42	40	-2	-4.8	Italy
Number of renewable power plants	(n.)	571	562	557	9	1.6	Italy
Hydro	(n.)	502	501	501	1	0.2	Italy
of which mini-hydro (<10 MW)	(n.)	320	324	324	-4	-1.2	Italy
Wind	(n.)	25	25	20	-	-	Italy
Photovoltaic solar	(n.)	5	4	4	1	25.0	Italy
Geothermal	(n.)	32	31	31	1	3.2	Italy
Biomass	(n.)	7	1	1	6	600.0	Italy
EN5 Thermal generating mix							
Share of CCGT (capacity)	(%)	23.9	23.9	23.8	-	-	Italy
Efficiency of coal-fired power plants	(%)	34.2	34.2	34.6	-	-	Italy
Efficiency of CCGT power plants	(%)	51.5	52.6	53	-1.2	-2.2	Italy
Efficiency of oil/gas power plants	(%)	30.0	32.3	35	-2.2	-6.9	Italy
Efficiency of thermal generating mix	(%)	38.1	39.3	39.1	-1.3	-3.2	Italy
Availability of thermal generating mix (KD)	(%)	78.3	73.0	73.3	5.3	7.3	Italy
Green Energy							
Deployment of renewables ⁽²⁾	(MW)	109	71	33	37	52.5	Italy
Hydro	(MW)	8	23	22	-15	-66.6	Italy
of which mini-hydro (<10 MW)	(MW)	3	4	7	-1	-31.7	Italy
Wind	(MW)	71	47	11	24	50.0	Italy
Photovoltaic	(MW)	6	1	-	5	400.0	Italy

KPI	UM				%	Boundary
		2009	2008	2007	2009-2008	2009-2007
ENERGY EFFICIENCY OF GRIDS						
EN29 Electricity distribution						
Distribution grid losses	(%)	6	6	6	-	- Italy
Construction/upgrade of LV/MV lines	(km)	15,388	19,939	19,679	-4,551	-23 Italy
LV lines	(km)	10,952	14,596	13,569	-3,644	-25 Italy
MV lines	(km)	4,436	5,217	6,013	-781	-15 Italy
Share of PCB-containing equipment	(%)	2.3	2.7	4.2	-0.4	-15.3 Italy
EN1 Amount of PCBs contained in equipment						
Electricity wheeled	TWh	241.7	257.9	259.0	-16.2	-6.3 Italy
Municipalities served by the power grid	(n.)	7,655	7,654	7,724	1	0.01 Italy
RATIONAL ENERGY USE						
EN6 Promotion of energy efficiency						
Energy Efficiency Certificates (white certificates)	(n.)	788,400	716,728	212,034	71,672	10.0 Italy
Photovoltaic	(kWp)	48,900	29,300	17,600	19,600	66.9 Italy
Smart meters installed	(,000)	32,540	31,811	30,800	729	2.3 Italy
ENVIRONMENTAL PERFORMANCE						
Resources used in the production process						
Fuel consumption						
EN1 Coal	(million t)	11.1	11.7	11.4	-0.6	-5.1 Italy
EN1 Oil	(million t)	0.9	1.4	1.8	-0.5	-34.5 Italy
EN1 Gas	(million m ³)	4.2	6.7	7.2	-2.4	-36.6 Italy
EN1 Gas-oil	(,000 t)	98.7	93.3	69.9	5.4	5.7 Italy
EN1 Biomass and waste for thermal power generation	(,000 t)	209.1	138.6	97.5	70.5	50.9 Italy
EN3 Total fuel consumption						
Coal	(%)	58.7	49.2	45.9	9.5	19.3 Italy
Oil	(%)	8.0	9.8	11.9	-1.8	-18.1 Italy
Gas	(%)	31.9	40.1	41.5	-8.2	-20.5 Italy
Other (gas-oil, biomass and waste for thermal power generation)	(%)	1.5	1.0	0.7	0.5	50.4 Italy
EN1 Geothermal fluid (overall fluid extracted)	(,000 t)	46,777.9	50,172	50,478	-3,394.3	-6.8 Italy
Geothermal fluid (net of reinjected fluids)	(,000 t)	28,462.0	29,855	30,364	-1,392.7	-4.7 Italy
Geothermal steam used for electricity generation	(,000 t)	41,385.3	43,931	44,215	-2,545.9	-5.8 Italy
EN8 Water consumption						
EN10						
Specific water requirements for thermal power generation ⁽³⁾	(l/kWh)	0.74	0.61	0.57	0.13	21.1 Italy
Water requirements for industrial uses	(million m ³)	36.8	39.0	38.3	-2.2	-5.5 Italy
from rivers	(million m ³)	7.4	8.1	9.4	-0.7	-8.1 Italy
from wells	(million m ³)	6.7	6.6	3.6	0.2	2.7 Italy
from aqueducts	(million m ³)	5.8	6.5	5.5	-0.7	-10.5 Italy
Total abstraction of inland waters	(million m ³)	20.0	21.1	18.5	-1.2	-5.5 Italy
from the sea, as-is	(million m ³)	5.9	10.0	11.9	-4.2	-41.4 Italy
from the sea, desalinated	(million m ³)	6.2	5.9	6.4	0.3	5.0 Italy
from waste waters (used inside the installations)	(million m ³)	4.8	2.1	1.5	2.7	129.8 Italy
% of recycled and reused waters	(%)	13.0	5.4	3.9	7.7	143.3 Italy

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
EN1 Expendables	(,000 t)	345.8	317.6	251.7	28.3	8.9	Italy
Lime	(,000 t)	260.8	249.9	192.4	11.0	4.4	Italy
Ammonia	(,000 t)	18.7	17.7	19.8	1.0	5.6	Italy
Caustic soda	(,000 t)	26.8	16.8	15.6	10.0	59.5	Italy
Slaked lime	(,000 t)	7.0	8.2	10.1	-1.2	-14.6	Italy
Sulfuric/hydrochloric acids	(,000 t)	4.8	4.3	4.6	0.5	12.8	Italy
Other	(,000 t)	27.7	20.7	9.3	7.0	33.6	Italy
EN20 Emissions of pollutants ⁽³⁾							
Net specific emissions of SO ₂	(g/kWh)	0.53	0.54	0.67	-0.01	-2.1	Italy
Net specific emissions of NO _x	(g/kWh)	0.50	0.49	0.52	0.004	0.79	Italy
Net specific emissions of H ₂ S	(g/kWh)	2.04	2.53	3.09	-0.48	-19.17	Italy
Specific emissions of particulates	(g/kWh)	0.024	0.024	0.024	0.001	2.167	Italy
Waste waters (discharged quantity)	(million m ³)	9.1	10.2	13.7	-1.1	-11.1	Italy
from thermal power generation	(million m ³)	9.0	10.2	13.7	-1.1	-11.2	Italy
from fuel-oil storage & handling	(million m ³)	0.04	0.03	0.03	0.0	19.4	Italy
EN16 Emissions of greenhouse gases							
Specific emissions of greenhouse gases ⁽³⁾	(g/kWh)	746	691	694	56	8.1	Italy
Emissions ⁽⁴⁾	(million t)	37.1	44.4	46.8	-7.3	-16.5	Italy
Avoided emissions	(million t)	20.7	18.4	14.9	2.4	12.8	Italy
Other greenhouse gas emissions (SF ₆)	(,000 kg)	5.1	4.9	4.8	0.2	4.5	Italy
EN22 Waste management							
Waste production	(,000 t)	1,843	1,966	1,801	-124	-6.3	Italy
Hazardous waste production	(,000 t)	50.7	34.1	38.4	16.7	49.0	Italy
Waste recovery	(%)	80.2	86.1	83.7	-5.9	-6.8	Italy
Asbestos disposal	(t)	10,239	3,689	4,737	6,550	177.6	Italy
EN29 Impact on land/landscape							
Length of power lines	(km)	1,099,683	1,112,155	1,104,980	-12,472	-1.1	Italy
Total LV lines	(km)	757,337	752,789	747,406	4,548	0.6	Italy
Total MV lines	(km)	342,289	340,427	338,644	1,862	0.5	Italy
Total HV lines	(km)	57	18,939	18,930	-18,883	-99.7	Italy
Percentage of underground/overhead cables in LV/MV lines	(%)	71.8	71.3	70.6	0.5	0.7	Italy
Percentage of underground/overhead cables in LV lines	(%)	85.3	84.8	84.1	0.5	0.6	Italy
Percentage of underground/overhead cables in MV lines	(%)	41.9	41.4	40.9	0.5	1.2	Italy
Land owned in protected areas/ biodiversity	(ha)	759,208	-	-	-	-	Italy
EN28 Environmental litigations in Italy							
"Passive" environmental proceedings	(n.)	287	213	213	74	35	Italy

(1) This amount (operation and investment costs) includes both the costs directly incurred by the Research Technical Area and the costs incurred for technological innovation by other Areas. The 2007 data refer to the Research Technical Area only.

(2) Gross of decommissioned installations.

(3) The generation data used to compute specific requirements of water and specific emissions of pollutants are slightly different (by 0.5 TWh) from those reported in the generation data tables, owing to the different location of the meters used for measuring them. In the case of specific requirements of water/specific emissions, use is made of the data measured at the outlet of the plant (meters located at the terminals of its generators); in economic management terms, use is instead made of the value of the power sold (measured by meters located further downstream). Indeed, the net generation at the outlet of the plant does not necessarily match the net power sold; the net power sold is not only measured further downstream (and thus affected by grid losses), but also gross of the power consumed by some auxiliary services (medium-voltage services in some dams, start-up services for thermal power plants, etc.) which are not considered in its computation.

(4) The data also include emissions from non-certified installations, i.e. not subject to the Emission Trading Directive.

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
ENVIRONMENTAL MANAGEMENT SYSTEMS							
EN14 Environmental certification							
Coverage of ISO 14001 certification ⁽¹⁾	(%)	83.9	60.4	68.5	23.4	38.8	Abroad
ENERGY EFFICIENCY OF GENERATING MIX ABROAD							
EN5 Generating mix							
Net maximum electrical capacity of thermal power plants	(MW)	30,971	23,364	15,559	7,608	32.6	Abroad
Net maximum electrical capacity in nuclear power plants	(MW)	5,283.6	4,564	4,492	720	15.8	Abroad
Net maximum electrical capacity in renewable power plants	(MW)	18,651	15,069	15,078	3,582	23.8	Abroad
Hydro	(MW)	16,587	12,882	13,490	3,705	28.8	Abroad
Wind	(MW)	1,892	2,084	1,492	-192	-9.2	Abroad
Geothermal	(MW)	47	7	7	40	564.4	Abroad
Other (combined heat & power generation, biomass, etc.)	(MW)	126	95	88	30	31.9	Abroad
Net generation in thermal power plants	(TWh)	99.1	81.7	23.9	17.5	21.4	Abroad
Net generation in nuclear power plants	(TWh)	31.9	32.9	18.2	-1.0	-3.1	Abroad
Net generation in renewable power plants	(TWh)	52.7	42.3	17.2	10.4	24.7	Abroad
Hydro	(TWh)	47.8	38.3	15.8	9.5	24.8	Abroad
Wind	(TWh)	4.3	3.5	1.1	0.8	21.9	Abroad
Geothermal	(TWh)	0.15	0.04	0.04	0.1	322.2	Abroad
Other (combined heat & power generation, biomass, etc.)	(TWh)	0.5	0.5	0.3	0.1	15.2	Abroad
Overall net generation	(TWh)	183.8	156.9	59.3	26.9	17.1	Abroad
Net maximum electrical capacity in renewable power plants	(MW)	18,651	15,069	15,078	3,582	23.8	Abroad
Iberia	(%)	31.8	35.8	37.9	-4.0	-11.2	Abroad
France	(%)	0.4	0.1	-	0.3	358.5	Abroad
Greece	(%)	0.8	0.7	0.5	0.1	18.1	Abroad
Slovakia	(%)	12.5	15.5	15.4	0.10	0.6	Abroad
Bulgaria	(%)	0.1	0	0.1	0.1	-	Abroad
North America	(%)	4.2	5.0	3.1	-0.7	-14.9	Abroad
Latin America	(%)	50.2	43.0	42.9	7.2	16.7	Abroad
Net generation in renewable power plants	(TWh)	52.74	42.29	17.25	10.44	24.7	Abroad
Iberia	(TWh)	19.2	8.73	2.82	10.44	119.6	Abroad
France	(TWh)	0.01	0.01	-	-	-	Abroad
Greece	(TWh)	0.22	0.22	0.05	-	-	Abroad
Slovakia	(TWh)	4.06	4.06	4.24	-	-	Abroad
Other Europe	(TWh)	0.02	0.02	0.01	-	-	Abroad
North America	(TWh)	1.87	1.87	1.24	-	-	Abroad
Latin America	(TWh)	27.38	27.38	8.89	-	-	Abroad
Iberia	(%)	36.4	20.6	16.3	15.7	76.1	Abroad
France	(%)	0.01	0.02	-	-0.003	-19.8	Abroad
Greece	(%)	0.4	0.5	0.3	-0.1	-19.8	Abroad
Slovakia	(%)	7.7	9.6	24.6	-1.9	-19.8	Abroad
Other Europe	(%)	0.04	0.05	0.04	-0.01	-19.8	Abroad
North America	(%)	3.5	4.4	7.2	-0.9	-19.8	Abroad
Latina America	(%)	51.9	64.7	51.5	-12.8	-19.8	Abroad

KPI	UM	2009	2008	2007	2009-2008	2009-2007	%	Boundary
ENVIRONMENTAL PERFORMANCE								
Resources used in the production process								
EN1	Fuel consumption							
	Coal (million t)	21.0	17.2	11.8	3.8	21.9		Int.I Division
	Oil (million t)	0.1	0.1	0.1	0.01	9.1		Int.I Division
	Gas (million m ³)	6.1	3.9	0.1	2.2	57.1		Int.I Division
	Gas-oil (,000 t)	1.5	1.6	1.6	-0.1	-4.0		Int.I Division
	Biomass and waste for thermal power generation (,000 t)	2.2	0.4	0.4	1.8	525.7		Int.I Division
EN3	Total fuel consumption (Mtoe)	11.76	8.13	3.31	3.64	44.7		Int.I Division
EN1	Coal (%)	57.1	60.3	93.6	-3.2	-5.4		Int.I Division
EN1	Oil (%)	0.6	0.8	1.9	-0.2	-27.7		Int.I Division
EN1	Gas (%)	42.3	38.9	1.7	3.4	8.9		Int.I Division
EN1	Other (gas-oil, biomass and waste for thermal power generation) (%)	0.02	0.001	2.8	0.02	1,765.8		Int.I Division
EN8 EN10	Water consumption							
	Specific water requirements for thermal power generation ⁽²⁾ (l/kWh)	1.5	2.5	5.7	-0.9	-38.0		Int.I Division
	Water requirements for nuclear power generation (million m ³)	40.4	38.5	37.0	1.9	5.0		Int.I Division
	Nuclear power generation (TWh)	13.1	12.2	11.4	0.9	7.3		Int.I Division
	Specific water requirements for nuclear power generation (l/kWh)	3.1	3.2	3.2	-0.1	-2.2		Int.I Division
	Water requirements for industrial uses ⁽²⁾ (million m ³)	123.2	126.2	97.5	-3.0	-2.4		Int.I Division
	from rivers (million m ³)	110.7	119.6	89.4	-8.9	-7.4		Int.I Division
	from wells (million m ³)	0.4	0.2	2.5	0.2	84.7		Int.I Division
	from aqueducts ⁽³⁾ (million m ³)	0.0	1.7	0.9	-1.7	-100.0		Int.I Division
	Total abstraction from inland waters (million m ³)	111.1	121.5	92.9	-10.4	-8.5		Int.I Division
	from the sea (million m ³)	-	-	-	-	-		Int.I Division
	from the sea, desalinated (million m ³)	-	-	-	-	-		Int.I Division
	from waste waters (used inside the installations) ⁽³⁾ (million m ³)	12.1	4.7	4.7	7.4	157.7		Int.I Division
	% of recycled and reused waters ⁽³⁾ (%)	9.8	3.7	4.8	6.1	163.9		Int.I Division
EN1	Expendables (,000 t)	505.0	519.0	352.7	-14.0	-2.7		Int.I Division
	Lime (,000 t)	473.1	484.9	321.7	-11.9	-2.5		Int.I Division
	Ammonia (,000 t)	0.8	1.5	2.4	-0.6	-42.9		Int.I Division
	Caustic soda (,000 t)	2.3	2.2	2.0	0.1	4.6		Int.I Division
	Slaked lime (,000 t)	20.0	23.9	16.2	-3.9	-16.3		Int.I Division
	Sulfuric/hydrochloric acids (,000 t)	4.8	3.9	3.6	1.0	24.7		Int.I Division
	Other (,000 t)	3.9	2.5	6.9	1.4	55.3		Int.I Division
EN20	Emissions of pollutants in Slovakia							
	Net specific emissions of SO ₂ (g/kWh)	11.6	11.8	10.6	-0.2	-1.3		Slovakia
	Net specific emissions of NO _x (g/kWh)	1.9	1.9	2.1	-	-		Slovakia
	Specific emissions of particulates (g/kWh)	0.2	0.2	0.2	0.0	-6.4		Slovakia
EN20	Emissions of pollutants in Bulgaria							
	Net specific emissions of SO ₂ (g/kWh)	4.0	7.7	28.8	-3.7	-47.9		Bulgaria
	Net specific emissions of NO _x (g/kWh)	1.0	1.3	1.6	-0.2	-19.3		Bulgaria
	Specific emissions of particulates (g/kWh)	0.22	0.22	0.45	0.00	2.23		Bulgaria
EN20	Emissions of pollutants in Russia ⁽²⁾							
	Net specific emissions of SO ₂ (g/kWh)	2.6	2.8	-	-0.2	-7.6		Russia
	Net specific emissions of NO _x (g/kWh)	2.0	1.7	-	0.3	14.5		Russia
	Specific emissions of particulates (g/kWh)	2.5	3.3	-	-0.8	-22.8		Russia

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
EN20 Nuclear emissions into the atmosphere							
Noble gases	(TBq per Unit)	6.6	6.5	9.2	0.04	0.6	Slovakia
Iodine	(MBq per Unit)	0.56	0.65	1.06	-0.1	-14.2	Slovakia
Aerosols	(MBq per Unit)	20.8	18.1	20.5	2.7	14.8	Slovakia
Nuclear releases into water							
Tritium	(TBq per Unit)	21.6	12.4	13.0	9.2	73.8	Slovakia
Corrosion and fission products	(MBq per Unit)	31.8	33.8	29.0	-1.97	-5.8	Slovakia
Releases into water							
Waste waters (discharged quantity)	(million m ³)	53.4	43.0	27.4	10.4	24.1	Int.I Division
from thermal power generation, simple and CHP ⁽³⁾	(million m ³)	45.1	34.8	20.1	10.3	29.6	Int.I Division
from nuclear power generation	(million m ³)	8.2	8.1	7.3	0.1	0.9	Int.I Division
Emissions of greenhouse gases in Slovakia							
Specific greenhouse emissions	(g/kWh)	1,184	1,338	1,314	-153.5	-11.5	Slovakia
Emissions	(million t)	3.3	4.1	4.1	-0.7	-17.9	Slovakia
Emissions of greenhouse gases in Bulgaria							
Specific greenhouse emissions	(g/kWh)	1,326	1,389	1,385	-62.3	-4.5	Bulgaria
Emissions	(million t)	5.0	5.2	4.8	-0.2	-4.2	Bulgaria
Emissions of greenhouse gases in Russia							
Specific greenhouse emissions	(g/kWh)	664	674	-	-10.0	-1.5	Russia
Emissions ⁽²⁾	(million t)	31.2	19.1	-	12.1	63.1	Russia
EN22 Waste management							
Waste production	(,000 t)	6,888	5,727	3,399	1,161	20.3	Int.I Division
Total non-hazardous waste	(,000 t)	6,885.2	5,723.0	3,385	1,162	20.3	Int.I Division
Recovery of non-hazardous waste	(,000 t)	356.9	369.2	895.1	-12.2	-3.3	Int.I Division
Production of hazardous special waste	(,000 t)	2.8	4.2	14.2	-1.4	-33.7	Int.I Division
Recovery of hazardous waste	(,000 t)	1.1	0.4	2.3	0.8	213.1	Int.I Division
of which, production of hazardous waste	(,000 t)	2.8	4.2	14.2	-1.4	-33.7	Int.I Division
Recovery of waste	(%)	5.2	6.5	26.4	-1.3	-19.4	Int.I Division
Liquid radioactive waste, low/medium level	(,000 mc)	0.09	0.12	0.12	-0.03	-23.2	Int.I Division
Solid radioactive waste, low/medium level	(ton)	31.7	39.4	37.9	-7.7	-19.6	Int.I Division
Solid radioactive waste, high level	(ton)	1.01	0.04	0.11	1.0	2,606.4	Int.I Division
EN29 Impact on land/landscape Romania							
Length of power lines	(km)	124,277	90,240	53,228	34,037	37.7	Romania
Total LV lines ⁽⁴⁾	(km)	80,493	47,559	25,591	32,934	69.2	Romania
Total MV lines	(km)	37,761	37,591	23,523	170	0.5	Romania
Total HV lines	(km)	6,023	5,090	4,114	933	18.3	Romania
Percentage of underground/overhead cables in LV/MV lines ⁽⁴⁾	(%)	42.3	39.3	29.1	3.0	7.7	Romania
Percentage of underground/overhead cables in LV lines ⁽⁴⁾	(%)	44.8	56.0	40.2	-11.2	-20	Romania
Percentage of underground/overhead cables in MV lines	(%)	37.0	19.4	16.9	17.6	90.8	Romania

KPI		UM	2009	2008	2007	2009-2008	2009-2008	%	Boundary
ENDESA'S ENVIRONMENTAL PERFORMANCE									
Resources used in the production process									
Fuel consumption									
EN1	Coal	(million t)	10.7	9.7	-	1.0	10.4		Endesa
EN1	Oil	(million t)	2.2	1.5	-	0.8	52.2		Endesa
EN1	Gas	(million m³)	5.5	3.5	-	2.0	56.9		Endesa
EN1	Gas-oil	(,000 t)	1.8	1.6	-	0.3	16.2		Endesa
EN1	Biomass and waste for thermal power generation	(,000 t)	69.8	60.4	-	9.3	15.5		Endesa
EN1	Total fuel consumption	(Mtoe)	14.4	9.4	-	5.0	53.3		Endesa
	Coal	(%)	38.7	51.5	-	-12.8	-24.8		Endesa
	Oil	(%)	15.2	15.4	-	-0.2	-1.2		Endesa
	Gas	(%)	32.9	32.8	-	0.1	0.2		Endesa
	Other (gas-oil, biomass and waste for thermal power generation)	(%)	13.2	0.0	-	13.2	-		Endesa
EN8 EN10	Water consumption								
	Specific water requirements for thermal power generation ⁽²⁾	(l/kWh)	0.76	0.81	-	-0.1	-6.5		Endesa
	Specific water requirements for nuclear power generation	(l/kWh)	7.5	6.0	-	1.5	24.9		Endesa
	Water requirements for industrial uses (2)	(million m³)	219.6	147.5	-	72.1	48.8		Endesa
	from rivers	(million m³)	206.7	137.9	-	68.8	49.9		Endesa
	from wells	(million m³)	2.8	3.2	-	-0.4	-11.9		Endesa
	from aqueducts	(million m³)	4.4	1.6	-	2.8	172.5		Endesa
	Total abstraction from inland waters	(million m³)	213.9	142.7	-	71.2	49.9		Endesa
	from the sea	(million m³)	2.7	3.0	-	-0.3	-9.5		Endesa
	from the sea, desalinated	(million m³)	2.9	1.8	-	1.1	64.4		Endesa
	from waste waters (used inside the installations) ⁽³⁾	(million m³)	0.01	0.01	-	0.0	60.0		Endesa
	% of recycled and reused waters ⁽³⁾	(%)	0.004	0.003	-	0.0	7.5		Endesa
EN1	Expendables	(,000 t)	393.2	430.0	-	-36.8	-8.6		Endesa
	Lime	(,000 t)	363.3	402.2	-	-38.9	-9.7		Endesa
	Ammonia	(,000 t)	1.0	0.9	-	0.1	9.1		Endesa
	Caustic soda	(,000 t)	2.9	2.2	-	0.8	35.2		Endesa
	Slaked lime	(,000 t)	6.3	4.3	-	2.0	47.7		Endesa
	Sulfuric/hydrochloric acids	(,000 t)	5.4	4.1	-	1.3	30.7		Endesa
	Other	(,000 t)	14.2	16.3	-	-2.1	-13.0		Endesa
EN20	Emissions of pollutants								
	Net specific emissions of SO ₂	(g/kWh)	1.4	1.7	-	-0.3	-16.9		Endesa
	Net specific emissions of NO _x	(g/kWh)	2.1	2.2	-	-0.1	-4.3		Endesa
	Specific emissions of particulates	(g/kWh)	0.09	0.09	-	0.0	-5.9		Endesa
EN20	Nuclear emissions into the atmosphere								
	Noble gases	(TBq per Unit)	24.0	24.4	-	-0.4	-1.5		Endesa
	Iodine	(MBq per Unit)	257.9	59.9	-	198.0	330.8		Endesa
	Aerosols								
	Nuclear releases into water	(TBq per Unit)	57.7	58.8	-	-1.0	-1.8		Endesa
	Tritium	(MBq per Unit)	21,738	4,088	-	17,650.0	431.8		Endesa
	Corrosion and fission products								
	Waste waters (discharged quantity)	(million m³)	194	472	-	-278	-59		Endesa
	from thermal power generation	(million m³)	36	249	-	-213	-85.5		Endesa
	from nuclear power generation	(million m³)	158	223	-	-65	-29.3		Endesa

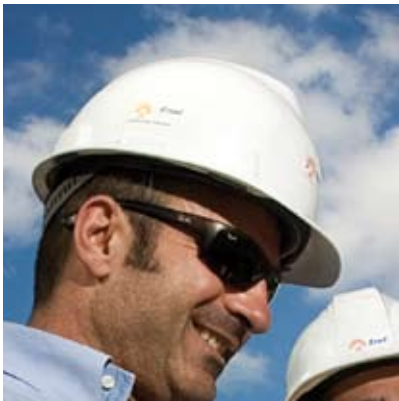
KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
EN16 Greenhouse emissions							
Specific greenhouse emissions	(g/kWh)	644	708	-	-63.6	-9.0	Endesa
Emissions	(million t)	41.4	36.5	-	4.9	13.4	Endesa
EN22 Waste management							
Waste production	(,000 t)	2,379	2,221	-	158.0	7.1	Endesa
of which, production of hazardous waste	(,000 t)	207.2	35.1	-	172.1	489.9	Endesa
Waste recovery	(%)	62.6	50.1	-	12.5	24.9	Endesa
Liquid radioactive waste, low/medium level	(,000 m ³)	3.31	1.25	-	2.1	164.2	Endesa
Solid radioactive waste, low/medium level	(ton)	88.8	97.2	-	-8.4	-8.7	Endesa
EN29 Impact on land/landscape							
Length of power lines	(km)	594,273	487,897	-	106,376.2	21.8	Endesa
Total LV lines	(km)	302,783	252,554	-	50,228.6	19.9	Endesa
Total MV lines	(km)	258,792	207,663	-	51,129.3	24.6	Endesa
Total HV lines	(km)	32,698	27,680	-	5,018.3	18.1	Endesa
Percentage of underground/overhead cables in LV/MV lines	(%)	38.7	41.9	-	-3.1	-7.4	Endesa
Percentage of underground/overhead cables in LV lines	(%)	55.3	58.8	-	-3.5	-6.0	Endesa
Percentage of underground/overhead cables in MV lines	(%)	19.3	21.2	-	-1.9	-8.8	Endesa

(1) The 2007 data do not include Endesa and Russia.

(2) The 2008 data for Russia are yearly data which have been repropotioned for the 7 months elapsed since the de facto acquisition of OGG-5.

(3) In 2009, Russia increased its efficiency in the utilization of waters for industrial uses, by optimizing the operation of equipment, increasing the use of waste waters and zeroing water abstraction from aqueducts.

(4) The 2009 value is different from the one shown in the Consolidated Financial Statements, because it considers the lines as far as their point of delivery. The 2008 data did not include this value.



LA - Performance Indicators on labor practices and decent work

Disclosure on Management Approach

Development of Human Capital

The changes of the last few years have profoundly modified the features of our organization, which in little more than five years has become a multinational present in 23 countries, with **more than 50% of its employees citizens of a country other than Italy**.

With the acquisition of Endesa, the “impetuous” growth abroad, which characterized the last four years, practically came to an end and a new phase – focused on the consolidation and integration of the different companies that now make up the Group – began.

In this situation, the Personnel and Organization Department will perform the crucial role of aligning the values and cultures of the Enel people, ensuring not only the achievement of business objectives, but also a style of relating to both the internal and the external community that is up to the sustainability ambitions and commitments established by the Company, all the while respecting local specificities.

In other words, the Department must establish and implement policies aimed at the construction of a work environment that is intent on results, but also attentive to the involvement of people and the quality of the relationship that individuals and different professional groups have with the Company. For the Department, this means developing a new way of doing and thinking to help people feel **less and less “employees” and more and more “citizens” of Enel**, able to combine their prospects and expectations with the growth of the Company, within a framework of overall sustainability.

At Enel, this ambition is transformed into concrete strategies and initiatives. First of all, the repeated concern for safety issues – which for Enel means tirelessly pursuing the achievable goal of “zero injuries” – not only for Enel employees, but for all the people who come into contact with the Company, both as suppliers and through other relations. This renewed commitment is shown by the fact that the **Enel Leadership Model – whose use will be extended in the assessment processes of 2010, involving more than 50% of the Company’s people** – was expressly revised in 2009 to make the safety issue explicit and codify it in specific behavior.

The next step will be to extend the concept of workplace health from meaning an absence of injuries, disease, or discomfort to meaning physical and mental well-being.

Then, a great willingness to listen: **the Climate Survey**, which is carried out every other year, furnishes what could be called the organization’s “temperature” and inspires future actions. More than **1,000 actions of improvement** were

conceived and implemented at the local level in 2009, to which must be added the trans-Group projects.

The dissemination of multiculturalism and the development of global capabilities are clearly other important matters that the Company will continue to work on in the immediate future to support the consolidation and multinational integration of Enel.

In this perspective, knowledge management takes on special importance.

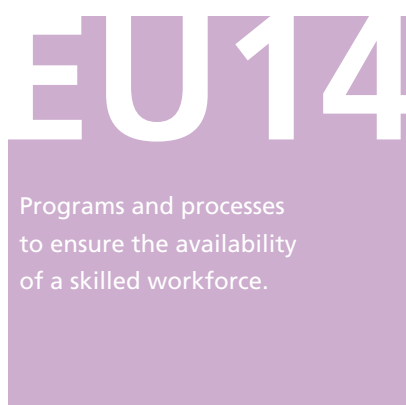
In the first place, Enel University offers a number of technical and functional courses, with both internal and external instructors, aimed at defining key knowledge and developing and disseminating it widely.

In the second place, in 2009 the Company launched the second **Enel-Endesa Performance Improvement Program**, part of which is dedicated specifically to **Best-Practice Sharing**. The four areas in which our efforts will be concentrated initially are: conventional thermal production, distribution, sales, and nuclear production. Eighteen work groups, involving about 125 people in six countries, have been set up, and – for those areas where there is the greatest value from an exchange of information – mixed work groups to identify the best operating practices and establish action plans to implement them in situations different from those in which they were developed.

Finally, with regard to support systems for knowledge exchange, two important platforms were planned and launched: the **"Global Intranet"**, which – in addition to being conceived to reach all the Group's countries – was also enhanced by a number of web 2.0 collaboration functions, and the **"Enel Learning System"**, in which online courses and study material are available.

The key words are thus: places for listening and reflection, safety and well-being, multiculturalism, diversity, and knowledge management and sharing. Enel's Personnel Department puts them at the center of its actions, with the goal of connecting its histories and cultures in a new multinational dimension, without forgetting the potential contribution these actions may give rise to for the systems in the countries where Enel is present in terms of social impacts and effects on employment, at a time when the financial situation risks influencing the growth prospects of all the players concerned.

EMPLOYMENT



Enel's selection and recruitment process is based on seeking the most talented people possessing the specialized, intellectual, and relational capabilities that are most suitable and appropriate for the roles they will perform. As far as specialized capabilities are concerned, the Company examines the potential employee's academic record, while behavioral capabilities regard the corporate leadership model, i.e. the kinds of behavior expected from every employee. In order to constantly ensure that Enel's capabilities are aligned with the demands of the market, the Company has a training model whose purpose is to guarantee that all employees have the opportunity to extend their knowledge and develop the key abilities for managing their roles effectively.

Developed at both the Enel University level and in the single Divisions, the Company's training model is based conceptually on the two important principles of allowing everyone equitable access to the "sources" of professionalization and providing life-long learning opportunities.

In practice, the training model consists of three large families:

1) **In-house Training** is mainly technical and specialized training, which the Divisions or countries manage directly. Normally, it aims to consolidate or develop the knowledge necessary to do the typical work required. A key example of this is recurrent training.

2) **Enel University Training**, the training managed by Enel University together with the Divisions, has the purpose of providing employees with the knowledge they need to understand change, help people "inhabit" the organization, and develop the specialized capabilities that qualify them for certain kinds of jobs.

3) **The Leadership Curriculum** refers to training that has the general purpose of accompanying and supporting people in their professional development at significant times for them within Enel: when they start working at the Company, their growth in their career, membership on the talent team, membership on the executive team, and their performance review. All of these are significant moments in the corporate life of employees and deserve special attention, because they are the crucial phases of life at the Company.

Below are brief descriptions of several of the programs that comprise the leadership curriculum. These programs are perfectly integrated with the training that the Divisions manage independently.

Enel Business & Leadership is addressed to the Group's management for the purpose of facilitating alignment with the Company's strategies and at the same time developing several key capabilities of the Enel Leadership Model. The course lasts five days.

L.I.NK is addressed to the Group's middle management, i.e. the employees who have been promoted from the level of white-collar worker to that of supervisor (Italy) or young middle managers who are in the position of coordinating processes and people. The program aims to provide instruments for interpreting on-the-job behavior in order to help people understand where Enel is headed and help them become agents of cultural change.

J.E.T. is an international program dedicated to young university graduates from all the Divisions and companies of the Enel Group, both in Italy and abroad, who have been recently hired and are starting their first job. The general objective of the program is to foster the development of an international and multicultural corporate identity, study the culture of Enel and its business, and understand the dynamics of a company that is driven by the market, organizational excellence, and the creation of value for all its stakeholders.

Post AOL (Assessment On Line) Training integrates a typical development action (assessment on line) with training based on a plan for developing the capabilities of the people involved. The project regards employees who have been working at Enel for about two years. This project also includes programs to develop specific capabilities.

Post-Performance-Review Training is a system that aims to satisfy – on the basis of the information provided by the Company's performance review – the requirements of developing the capabilities and attitudes that define the leadership model at the various organizational levels. The training system consists of various courses, whose purpose is to facilitate appropriation of the leadership model and the actual putting into practice of the behavior that supports it in the Company and strengthen the system of the capabilities and attitudes identified

EU15

Percentage of employees eligible to retire in the next 5 and 10 years, broken down by job category and by region.

as opportunities for improvement.

Welcome to Enel is a course for newly hired white-collar workers and supervisors in all the Divisions and Departments of the Enel Group in Italy who do not participate in the Junior Enel Training course. The purpose of this program is to welcome and socialize newly hired employees, facilitating their sense of identity and of being part of the Company. The course lasts ten days.

KPI	UM	Boundary	
2009			
Employees eligible to retire in the next 5 years			
- Executives	(%)	8	Enel
- Supervisors	(%)	8	Enel
- White-collar workers	(%)	12	Enel
- Blue-collar workers	(%)	13	Enel
- Average	(%)	11	Enel
Employees eligible to retire in the next 10 years			
- Executives	(%)	19	Enel
- Supervisors	(%)	17	Enel
- White-collar workers	(%)	27	Enel
- Blue-collar workers	(%)	30	Enel
- Average	(%)	26	Enel

The data for 2008 and 2007 are not available, because the indicator in question was requested for the first time in 2009.

EU16

Policies and requirements regarding the health and safety of employees and employees of contractors and subcontractors.

Enel provides training and information courses that include worker health and safety issues in the various specific initiatives dedicated to its employees. In the training of newly hired employees, the sessions dedicated to safety in the J.E.T. and Welcome In Enel courses are particularly important. Particular attention is given to newly hired engineering graduates assigned to technical areas, who receive six months of field training in safety, which includes alternating classroom activities with on-the-job ones, as well as participation in specific projects. Specific training in safety is also dedicated to employees who have leadership roles or roles that involve responsibility and representation in the field of safety, such as heads of prevention and protection services, safety representatives of the employees, and employees involved in first aid and fire prevention and fighting. Among the actions carried out in 2009 there was also a training course for executives on health and safety as part of Enel's compliance program pursuant to legislative decree 231/2001. Furthermore, every Division of the Enel Group initiated additional specific training and information activities for their employees and those of contractors. For further details on health and safety, see page 210.

In **Italy**, training in the Infrastructure and Networks Division is regulated by a specific procedure in the System of Safety and Environmental Management. Specifically, the following activities are provided for:

Initial training:

- > training of newly hired employees regarding general issues of occupational health and Safety;
- > specialized training of personnel in the event of a change of duties;

Continuing training:

- > informing/training all the workforce regarding the risks of their workplace (fire-prevention courses);
- > distribution of manuals containing information on the proper performance of activities ("Safety at Enel", "Safety Behind the Wheel", etc.);
- > cycles of training initiatives from the catalogue of courses regarding work instructions (work off the ground, working with live wires, equipment use, PPD use, etc.), corporate procedures (Electricity Risk Prevention, procedures for communicating risks to companies, management of worksite emergencies, etc.), specific jobs (first aid for operating personnel, tasks and responsibilities of the Head, single-operator activities, etc.), and general information (various risks associated with specific work activities);

Specialized training:

- > training for performing specialized roles according to the law (fire prevention and fighting, first aid, prevention and protection service, employees' safety representatives, etc.);
- > specific training for particular jobs (driving/operating trucks with a crane, cherry pickers, etc.);
- > innovative training projects;
- > production of audiovisuals for raising awareness of accident prevention;
- > creation of special multimedia products on the correct way of performing activities (multimedia simulator, WFM Project, etc.);
- > new training techniques involving the workforce (Behavior-Based Safety, "Safety Goes to the Theater");
- > training to rationalize wrong everyday behavior (24/7 project).

The following were carried out for contractor employees:

- > actions to make operating personnel aware of safety issues (distribution of the illustrated manual "Safety in Your Pocket", which describes the correct use of equipment);
- > awareness-raising actions for heads (Safety Days, Safety Walks, etc.).

For all contractor firms engaged in the construction and maintenance of its distribution network, Enel has set up a specific qualification procedure. A training course, differentiated by kinds of activity, is provided for the technical personnel of qualified firms. All the workers used in the various outsourced activities must possess a certificate stating that they have received training for their job. Enel establishes the technical specifications of the courses, which are given by training institutes accredited by the national certification organization Accredia. The latter supervises the courses and ensures that they are conducted properly. In addition to work procedures, the courses explain the operative application of safety regulations for individual activities.

Furthermore, in 2008 the figure of the **QSE (Quality-Safety-Environment)** was introduced. After appropriate training (as described above), this person is

entrusted with applying the general provisions regarding quality, safety, and the environment to the specific activities carried out for Enel.

During 2009, a “training booster” was begun for all the qualified personnel, with the aim of keeping the workers’ professional skills up to date. A specific session on safety was included in the course.

In **Italy**, the Engineering and Innovation Division issued a document on “**Safety Policy**”, in which the procedures for managing the health and safety of its employees and of people who work at its facilities as firms, collaborators, and visitors are described, with a view to continually improving the process. It adopts and implements a Safety Management System certified under the BS OHSAS 18001:2007. At point 4.4.2, the related manual describes the “**management of capabilities, training, and awareness**”, while a Managerial Procedure establishes the rules with which all employees performing duties that expose them to significant risks are made aware and enabled to acquire the necessary capabilities through specific training conducted by personnel with certified qualifications.

The Division also issued Operating Procedures describing in greater detail the training and information provided for all categories of employees (newly hired, blue-collar, white-collar, supervisors, executives, corporate safety figures, etc.) and every year issues plans concerning information and training regarding safety.

In **Italy**, the Generation and Energy Management Division carried out training on workplace health and safety regarding:

- > the identification and quantification of dangers and the assessment of occupational risks;
- > training and awareness-raising;
- > communication;
- > operating and emergency management;
- > and the GEM Safety Management System manual.

In addition, the following training activity is regularly planned and carried out:

- > training on Legislative Decree 81/2008 for all Enel employees;
- > training and refresher courses for workers;
- > training and refresher courses for Heads;
- > RSPP/ASPP and RLS training and refresher courses;
- > training for newly hired engineers in Modules A, B, and C;
- > training for newly hired engineers in the hydro area;
- > SGS training ;
- > DPREG and DPRI training on electricity risk;
- > ATEX (explosive atmospheres) training.

The Division’s information programs regard the following projects:

- > *Visual Safety*, which is based on the adoption of instruments of visual management applied to the assessment of maintenance activities and risks and of a balanced approach of top-down and bottom-up initiatives;
- > *Safety 24/7*, which aims to make employees more aware of safety even in apparently low-risk activities and achieve 24/7 safety;
- > *Safety Together*, which uses visual-management instruments to highlight the areas in which it is necessary to act in a certain way and follow precise safety instructions;
- > *Multilingual Safety 24/7* for contractor workers.

The Renewable Energy Division adopts the Safety Management System at Enel Green Power and Enel.Si. The training activities on workplace health and safety regard:

- > training for prevention-and-protection-service workers and heads;
 - > training for workers assigned to erecting and taking down scaffolding;
 - > DPREG and DPRI training on electricity and water risk;
 - > safety management system training;
 - > *Visual Safety*: Safety Line, Safety Pocket, DVR (DSS) in the field, check point.
- Considering the particularly critical aspects of geothermal production, a specific "Geothermal Safety 24/7" project was created for this area. Similar training projects are being developed for contractor workers.

As far as the International Division is concerned, in **Russia** continual and systematic training activities for the workforce are included in the main organizational guidelines.

To ensure that employees are appropriately trained for their jobs, a procedure based on the various employee categories was established, in which the latter undergo:

- > introductory training on behaving safely in the company's workplaces;
- > training on safety fundamentals in workplaces with particular risks;
- > training on the safety measures necessary for working in risky jobs;
- > on-the-job development of capabilities (trial period), as part of training programs approved by technical heads, which includes training in safety, as well as the description of equipment;
- > assessment of knowledge and capabilities at the end of the training course;
- > "on-the-job" training under the guidance and supervision of expert tutors;
- > simulations of emergencies and fire-fighter drills (for shift workers);
- > possibility of additional hours of safety training with respect to the number planned (up to 30 hours a month);
- > training on the basic principles of fire-fighting for employees not directly involved in managing equipment or a training course as part of the fire-fighting program;
- > additional professional training at training institutes, universities, and advanced-study courses.

Training activities for contractor firms begin as early as the tender process with the acquisition of documents proving the availability of qualified personnel at the firm concerned. Furthermore, contractor employees receive introductory training before the work begins, followed by more specific training regarding the sites where they will be doing their jobs.

In **Slovakia**, in September 2009 a new health and safety program in keeping with the OHSAS 18001:2007 standards was established. The contractor requirements included in contracts regard safety performance, as well as technical conditions.

In **Romania**, the Group companies have integrated quality-environment-health-safety management systems, which show the safety policy adopted. Employee training is based on a procedure that includes different time intervals (every two years for white-collar-workers, every 3 months for blue-collar ones).

As far as contractors and subcontractors are concerned, regulatory provisions n.1425/2006 apply. They regard specific activities, occupational health and safety risks, and prevention and protection measures and activities.

Training takes place:

- > upon hiring: general introductory training;
- > following a transfer or a change in workplace: specific on-site training;
- > periodically;
- > following the introduction of new equipment or changes in equipment already present;
- > following the introduction of any new technology or work procedure;
- > for every shift, if necessary;
- > when there is dangerous work;
- > following a change of duties;
- > for external personnel who enter corporate buildings.

Training takes place for the following areas: occupational protection and safety, fire prevention and fire-fighting, vehicles, quality and the environment, first aid, emergencies, and training assessment.

The courses are developed in collaboration with external organizations. They satisfy the legal requirements, such as those, for example, of the courses on workplace safety, first aid, and emergencies.

Employee training is recorded in the individual training files, as is, in accordance with the provisions of the law, training for contractor employees.

Most of Endesa's initiatives to protect the health and safety of its employees are included in the **Apollo project, a long-term (2005-2012) project whose objective is to radically improve the health and safety process, integrating all the projects carried out within the Endesa boundary**. As part of this project, the company issued the Praevenio Plan (2005-2009 in **Spain** and 2008-2012 in **Portugal**), which defines Endesa's strategic plan with specific regard to employee health and safety and combines a preventive and social approach with the key idea of considering employee health as "social well-being" and not only as low rates of absenteeism.

The Praevenio Plan contains more than 100,000 initiatives for improving risk-prevention processes, as well as medical checkups, care, and inspections, as part of the plan for countering stress, muscle and bone problems, cardio-vascular disease, poor eating habits, smoking, the consumption of alcohol, sedentary life styles, etc.

EMPLOYMENT

LA1

Total workforce by employment type, employment contract, and region.

In 2009, the number of Enel employees was 38,121 in Italy and 43,087 abroad, a total of 81,208.

The data on the number of employees of contractor and subcontractor firms are not currently available, because they are not centrally managed. Enel undertakes to implement management systems in the medium term in order to monitor such data regarding its contractors and subcontractors. The data on the workforce are described on page 229 of this Report.

LA2

Total number and rate of employee turnover by age group, gender, and region.

In 2009, Enel hired 4,644 new employees, while the number of terminations amounted to 7,035, including 1,942 in Italy. The turnover rate was 8.7%.

For further information on the employee turnover rate and the average number of years of service, see the table on page 232.

EU17

Days worked by contractor and subcontractor employees involved in construction, operation, and maintenance activities.

Enel has started throughout the Group a process of monitoring and reporting the data regarding the activities carried out by contractors. This process initially included the monitoring of the Engineering and Innovation Division in Italy and its subsequent extension to the rest of the Enel Group. In addition to the Engineering and Innovation Division, the Generation and Energy Management, Infrastructure and Networks, Renewable Energy, and International Divisions, as well as Endesa, are monitored.

The activities mainly contracted out to other companies regarded construction, operation, and maintenance, which involve different categories of workers: engineers, technicians, machine operators, welders, power-plant mechanics, substation operators, distribution-line workers, maintenance workers, painters, electricians, chauffeurs, smiths, etc.

For the Enel Group overall, **21,639,980 total FTE (Full-Time Equivalent Days)** were estimated, broken down as follows:

FTE days for construction activities	2,347,128
FTE days for operating activities	7,042,250
FTE days for maintenance activities	12,250,602
Total FTE days	21,639,980
FTE days in Italy:	
FTE days for construction activities	1,595,175
FTE days for operating activities	18,063
FTE days for maintenance activities	1,223,918
Total FTE days in Italy	2,837,156
FTE days abroad:	
FTE days for construction activities	751,953
FTE days for operating activities	7,024,187
FTE days for maintenance activities	11,026,684
Total FTE days abroad	18,802,824

The main kinds of work contracted out by the Divisions of the Enel Group are described below.

Construction activities contracted out by the Engineering and Innovation Division for the building of thermal, nuclear, and experimental plants: civil (excavation, foundations, carpentry, welding, brick laying, flooring, asphaltting), mechanical (demolition, structure assembly, prefabrication, welding), electrical (cable laying, electric cabinet installation, electrical connections with specialized technicians), automation (technological cabinet installations, control room installations, technological connections), and start-up (plant trials and start-up).

FTE days for construction activity	983,910
FTE days for operating activities	-
FTE days for maintenance activities	-
Total FTE days	983,910

The Renewable Energy Division contracts out electrical maintenance work, mechanical maintenance work, plant construction work, portorage and transportation work, civil and industrial building maintenance, waste disposal, and plant operation.

FTE days for construction activities	173,052
FTE days for operating activities	40,612
FTE days for maintenance activities	80,024
Total FTE days	293,688

The Generation and Energy Management Division contracts out: work for automation systems/plants, work for civil and industrial works and related technological systems, work for electrical systems, work for hydraulic works, work for mechanical systems, maintenance and repair services for civil and industrial works and buildings and related technological systems, maintenance and repair services for electrical systems, maintenance and repair services for

mechanical systems, office supply maintenance and repair services, maintenance services for metering systems and instruments, services of IT hardware and software maintenance, logistic, facility management, and leasing services, consultancy services, and material and waste disposal services.

FTE days for construction activities	36,401
FTE days for operating activities	-
FTE days for maintenance activities	794,039
Total FTE days	830,440

The activities contracted out by the Infrastructure and Network Division regard: work for the construction of plants, work to solve problems with plants noted during their operation, and work to maintain the efficiency of components over time. Activities regarding the operation of the network are not contracted out, but are all carried out with internal resources.

The calculation of the FTE days involved using estimates applied to the quantity of final work, measured in "points" according to standardized divisional procedures.

The breakdown between construction activities and maintenance activities was obtained by applying the related percentages recorded for budget purposes to the total final data.

FTE days for construction activities	848,959
FTE days for operating activities	-
FTE days for maintenance activities	394,286
Total FTE days	1,243,245

In **Spain and Portugal**, the activities contracted and subcontracted out regard construction, operation, and maintenance.

The monthly report that Endesa sends to the respective departments of industrial relations does not include information concerning the days worked by contractors and subcontractors in the activities of construction, operation, and maintenance, but states the subject matter of the contract and the dates when the work began and ended. Therefore, the following data are estimates.

FTE days for construction activities	156,118
FTE days for operating activities	6,979,046
FTE days for maintenance activities	10,305,705
Total FTE days	17,440,869

In **Slovakia**, the activities contracted and subcontracted out regard construction and maintenance.

FTE days per attività di costruzione	64,350
FTE days per attività di operation	-
FTE days per attività di manutenzione	150,150
Total FTE days	214,500

In **Russia**, the activities contracted and subcontracted out regard construction, operation and maintenance. The list includes: mechanical maintenance workers for plants (boiler, turbine, steam circuit), electrical maintenance workers (boiler and turbine, line installation and cabling, automatic and metering devices), electricians, welders, turners, operators of milling machines, smiths, carpenters, painters, masons, plumbers, electricians, ventilation and air-conditioning technicians, drivers, corrosion protection system experts, crane operators, engineers, and technical personnel.

FTE days for construction activities	7,077
FTE days for operating activities	19,396
FTE days for maintenance activities	437,429
Total FTE days	463,902

In **Bulgaria**, contractors and subcontractors are engaged in the activities of construction and maintenance.

The main jobs are: builders, mechanical workers, lunchroom workers, guards, welders, cleaning firms, technicians, electricians, and fitters.

FTE days for construction activities	77,261
FTE days for operating activities	3,196
FTE days for maintenance	88,969
Total FTE days	169,426

EU18

Percentage of contractor and subcontractor workers who have undergone relevant health and safety training.

Data on the training of contractors and subcontractors are not available at present, because they are not managed centrally. Enel undertakes in the medium term to implement management systems for the purpose of monitoring this indicator.

Enel requires that all personnel of contractor firms working at the plants and on the sites owned by the Group be appropriately trained by their employer. This check is made both during the contractor's qualification procedure and before the work begins. Before the work begins Enel also informs contractor workers with regard to the procedures for entering the plants and to the presence of dangers in the work areas. In many cases, Enel provides additional training for contractor workers.

LA3

Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.

In **Italy**, regardless of the kind of contract (*), employment is distinguished by the institution of a veritable system of “**internal welfare**”. For the personnel regulated by the national collective bargaining agreement for workers in the electricity industry, recreational and cultural activities and sports are managed by the ARCA Association and for executives by the ACEM. In addition, the ANSE Association serves a similar purpose for older workers, both in service and retired. The funding of the ARCA is established by an agreement between Enel and the workers’ unions and is charged exclusively to the companies whose workers are ARCA members. The criterion for determining the amount of the funding is based on an annual sum per person, which is then multiplied by the number of workers employed as of January 1 each year.

The **ACEM** is an association founded pursuant to an agreement between the **Enel companies and the union representatives of the executives**.

The institutional activities of the ACEM are also connected with the management of leisure, such as the organization of cultural and educational initiatives, travel, and the ACEM club in Rome. The funding is established by an agreement between the member companies and the executives’ union representatives.

The ANSE may be joined on a voluntary basis by older Enel employees, both active and retired, and their survivors. In addition to the management of leisure, its purpose is to assist members and their survivors individually. **Supplementary health care is managed by the FISDE Association**, while similar services for executives are entrusted to the ASEM.

The **FISDE, the supplementary health-care fund for employees**, is managed by an equal number of company and union representatives. It is also financed by the companies whose employees are FISDE members and the amount is based on an annual sum per person, which is multiplied by the number of employees as of January 1 each year.

The **ASEM manages supplementary health care** through financial contributions when there are medical expenses regarding executives of the member companies.

Part-time employees and those with beginner contracts, even if fixed-term, enjoy the same benefits as permanent, full-time employees. The only employees who do not have the benefits in question are those with fixed-term contracts other than beginner ones, who constitute only 0.06% of the total number of employees.

Endesa promotes pension plans that manage 3,157 million euro of assets, with 35,110 participants. Of the total sum managed, 2,460 million euro correspond to Endesa’s Pension Plan in **Spain**, 521 million euro to pension plans in **Brazil**, and 176 million euro to Endesa’s pension plan for the employees of Ascó.

In addition to those that are legal obligations in each country, Endesa offers various social benefits to different groups of employees, including support for studies, loans, energy supply, subsidized cafeterias, and health and life insurance. Endesa’s total expenditure in this field amounts to 60.2 million euro.

The situation in the International Division varies from country to country, according to the prior agreements developed in the different companies before Enel’s arrival.

In **Slovakia**, there is a people-care program, which enables all employees to access specialized medical care. As far as recreational activities are concerned, employees have the possibility of receiving free tickets or special discounts for cultural events. By law, employers are also obliged to set up a Social Fund to finance “non-recurrent social loans” to employees for situations of serious family

hardships – such as help to the family if an employee dies or an indemnity to employees in case of prolonged inability to work, with a minimum limit of six months – and a fund to reimburse a predefined set of expenses for the benefit of all employees. Finally, following Enel's arrival, in all the countries of the International Division summer camps have been set up in Italy for the children of employees, "open days" in plants have been instituted for families and children (except in Romania, where there are no generating plants in operation), and competitions dedicated to the children of employees have been established. Situations in the International Division vary from country to country and inside the same country according to agreements entered into by the different companies before Enel's arrival.

In **Russia (OGK5)**, there is a complex welfare system, which includes supplementary health insurance paid completely by the company, supplementary assistance with respect to the legal obligations for employees and their families in cases of injury or death in an accident, financial contributions for marriages and the birth of children, contributions for children's hospitalization expenses, sponsorship of stays in rehabilitation and preventive-medicine centers, energy discounts (electricity and heating) covering 50% of employee costs, "summer camp" for the children of employees, and sponsorship of recreational activities and wellness programs. At most plants there are cafeterias, libraries, and exercise rooms. All of the foregoing benefits are available for all employees, including those with part-time contracts and excluding executives, and are administered by the Human Resources Department in agreement with the labor unions.

In **Bulgaria**, the employees of Enel Maritza East 3 enjoy supplementary health insurance, while for those of Enel Operating Bulgaria there is a Social Fund (amounting to 21.25% of the value of the salary fund), which, according to the provisions of the collective bargaining agreement, is managed by the labor union as far as the allocation of the expenditure (health care or support for families) is concerned.

In **Romania**, the collective bargaining agreement provides for all employees to use the occupational-medicine laboratories, a monetary bonus after an employee has worked 20 years at the company, an energy discount (with a monthly value amounting to 300 kWh for active employees and 100 kWh for retirees), and access to the Fund for Social, Cultural, and Recreative Activities.

(*) excluding the trial period, whose duration varies, but in any case is less than 12 months.

INDUSTRIAL RELATIONS

Again in 2009, Enel chaired the “Human Resources and Social Affairs” Working Group within Eurelectric, an Association of European electricity companies. Eurelectric is officially recognized and legitimated by the European Commission as the employer party in the industry’s social dialogue, together with the EPSU and the EMCEF, European union federations, to which the Italian industry unions FILCEM, FLAEL, and UILCEM belong.

The tasks of the industry’s Social Dialogue Committee are: to follow up on European social and industry policy and related actions towards the services of the Commission, discuss and consult with the European union federations on topics of a shared agenda, analyze the issues of human resources with specific impact on the industry, and focus on the management of human resources with meetings on the industry’s challenges and opportunities.

In 2009, the industry’s social dialogue took place in four meetings, which, among other things, led to the signing of a joint statement on the social aspects of Corporate Social Responsibility (June 2009) and the launch of a project, financed by the European Commission, regarding “Climate Change, Employment impact, and Just Employment Transition: Principles for the European Electricity Sector”, which will be developed throughout 2010. The project aims to analyze present skills and those that will be necessary in the medium term to facilitate the transition to a “green economy” and at the same time identify cases of best practices in the management of human resources, including within consolidated practices of union relations at the national and company level.

Also with regard to the development of so-called “green jobs”, in 2009 Enel and Enel Green Power participated in two European research projects, which will continue to be developed in 2010. In cooperation with Adapt and other university and social research institutes in Spain, Hungary, and Bulgaria, a joint paper was presented at the European conference on “green education” on September 30 in Karlsruhe. The Company also joined WIRES, a European Commission-approved project, which will study the impacts of the European Package on renewable energy with regard to female employment.

The activity of informing and consulting workers at the European level began with Enel’s EWC first ordinary meeting, which was held from June 10 to 12, 2009. This was the first concrete application of the agreement of December 5, 2008, which established the EWC (European Works Council), an important step for industrial relations in consequence of the expanded international dimension of the Group.

During the meeting, the Select Committee, with one member from each country, was appointed and a number of topics considered strategic and transnational were discussed. In addition to the presentation of the data of the Financial Statements and the main points of the 2009-2013 Business Plan, the members of the EWC received information regarding the climate survey carried out in 2008 and the ensuing actions. Finally, information was provided regarding the Sustainability Report 2008, as well as data and actions in the field of occupational health and security, followed by a discussion.

Not only was the first meeting a kind of trial of the mechanisms of transnational information and consultation, by the Company and the unions also agreed on the training activity for the members of the EWC, which constitutes one of the main provisions of the Agreement. For 2009, an individual unit of language training in English, aimed at consolidating the abilities necessary to create a common working language for the members of the EWC. Furthermore, a joint Company-EWC project financed by the EU on social dialogue and the role of the European Works Council was presented during the first meeting and subsequently approved by the EU Commission DG Employment, in November 2009, after the first meeting of the Select Committee. The subsequent stages of the project are planned to begin in the spring of 2010.

In accordance with the Agreement and in cooperation with the union coordinator, the Company drew up the minutes in Italian and English, which were then translated into the different languages and sent to the members of the EWC, as well as the HR Departments in the countries involved in order to facilitate the dissemination of the content of the meeting among the unions and workers concerned

The EWC's ordinary activity then continued with a meeting of the Select Committee on July 30, at which the definitive version of the minutes of the first ordinary meeting were signed and there was an update on the situation regarding the headcount of the member countries. In effect, the total consolidation of Endesa brought the number of actual Spanish members up to 4 and the total to 21. The second ordinary meeting – which took place from November 4 to 6, 2009 and included a meeting of the Select Committee – focused on the Group financial data updated as of the third quarter, as well as presentations of the Renewable Energy Division and International Safety Week. At the end, a study by ADAPT and Enel Green Power regarding “green jobs” was presented and a work agenda for 2010 on the topic of CSR was outlined. This included the drawing up and discussion of a Group CSR Agreement, based on and within the framework of the principles of Enel's revised Code of Ethics, to be extended to the Group's international boundary.

With the signing on April 27, 2009 of the Protocol on Corporate Social Responsibility and the Agreement on the Observatory on Industrial, Environmental, and Employment Policies, Enel and the Italian labor unions completed a long process of discussing and agreeing on common principles regarding sustainable development.

From the Company's point of view, the signing of the Protocol constitutes a further and important element of a complete and integrated system of Corporate Social Responsibility (CSR). In the Protocol, the parties adopt the definition found in the European Commission's Green Paper of July 2001: “a concept whereby companies integrate social and environmental concerns in their business operations and in their interactions with their stakeholders on a voluntary basis”. For Enel, the framework of such system is constituted by the principles contained in its Code of Ethics. These principles are translated and implemented in the programs and strategies of the Sustainability Plan, which is coordinated with the Business Plan. The results achieved are annually certified and presented in the Sustainability Report.

From the point of view of industrial relations, the two agreements are part of a tradition of continual engagement and discussion, which has led Enel and the unions to share and support a model of corporate growth that combines value creation and concern for its economic, social, and environmental effects.

Thus the objective of Enel's system of industrial relations is to continue to represent an agent that contributes to strengthening the Company's identity and accompany its competitive growth, including through the pursuit of the goals of CSR.

Among the principles set forth in the Protocol is the importance of actions aimed at the promotion of CSR policies, beginning with the problems of labor and a constant affirmation of the essential importance of the individual and "responsible competitiveness" as the way to develop and grow.

Within the foregoing framework, one of the main purposes of the Protocol is the confirmation of the "value" of the individual in the sphere of his or her personal and collective interests: human rights, respect for the environment, occupational health and safety, training, and equality of opportunity.

The agreement on the principles regarding fundamental workers' rights and the commitment to respect, promote, and implement them in all the countries where Enel operates should be emphasized. Such principles are inspired by the Tripartite Declaration of the International Labour Organization (ILO) regarding employment, training, conditions of life and work, and industrial relations, as well as several ILO conventions on the freedom of union association, the prohibition of forced and child labor, and workplace health and safety. Consistently with the value attributed to the training of human resources in Enel's Code of Ethics, the parties then took the opportunity to promote the role and functioning of the "Joint Commission on Training and Employability" as the place to develop and strengthen the model of "bilaterality in training" already prefigured in the industry's collective agreement.

An important operating effect in December 2009 was the national framework agreement on Fondimpresa, an interprofessional fund dedicated to employee training on the basis of projects agreed on by the social partners, which renamed the "Enel Bilateral Commission on Training" and entrusted it with new tasks. The Observatory on Industrial, Environmental, and Employment Policies, a joint body consisting of representatives of the Company and the labor unions, constitutes a special place for relations between the Company and the labor unions regarding the strategic industrial, environmental, and employment choices that Enel intends to pursue.

Questions regarding procurement security, the liberalization of the industry, the protection of the environment, and the development of the Company's industrial policy, as well as the actions and programs based on the application of the Protocol on corporate social responsibility, will be the subject of examination and an exchange of information.

The Observatory will promote studies and research in the aforesaid fields and assess the possibility of participating in initiatives at the EU, national, and local levels. Through bilaterality, It intends to constitute an instrument of aggregation and "consensus" construction for carrying out the Company's policies at the local level, which could pave the way for the development on a similar basis of an Energy Observatory, in which the social partners discuss with public institutions in terms of general policy.

In Italy, in 2009 the Observatory began its concrete activity with its first two national meetings, which were dedicated to the Infrastructure and Networks Division's Investment Plan and the coal-fired plants of the Generation and Energy Management Division, focusing especially on the situation in Brindisi. These meetings were followed by local discussions, including with public administrative institutions.

LA4

Percentage of employees covered by collective bargaining agreements.

In 2009 in Italy 100% of the employees were covered by collective bargaining agreements. The percentages abroad were as follows: Enel North America 8%, Enel Latin America 45%, EUFER 100%, Romania 99%, Bulgaria 91%, Slovakia 100%, Russia 89%, and Endesa 82%.

The data on the percentage of employees of contractors and subcontractors covered by collective bargaining agreements are not available at present, because their management is not centralized. Enel undertakes to implement in the medium term management systems for monitoring this indicator.

It should be noted that in Italy contracts contain a clause that obliges suppliers to apply and comply with the collective bargaining agreements in force.

For further details, see the tables on page 233 and 238.

LA5

Minimum notice period regarding significant operational changes, including whether it is specified in collective agreements.

According to regulations issued by the EU and adopted by the member countries regarding the transfer of companies, plants, or parts of companies or plants to a new owner following their sale or merger, the seller and the buyer are required to inform the representatives of the workers concerned "in time", which Italian law (article 47 of law 428/1990) establishes as at least 25 days before. Legislative Decree n. 25/2007, which implements Directive 2002/14/EC, establishes a general framework with regard to informing and consulting employees. Industry regulations provide for systematic consultations between the social partners at all levels on issues of common interest and, in general, seeking an appropriate level of employee agreement on corporate strategies (article 2, "Industrial Relations" of the National Collective Bargaining Agreement of July 18, 2006).

At Enel, the Industrial Relations Protocol, which was signed with the most representative unions, regulates additional and more meaningful forms of communication with respect to those provided for at the industry level. In effect, in the event of significant organizational changes, the Protocol provides for a preliminary discussion with the employees' representatives, which must be concluded within three months. Before the discussions begin, Enel is committed to providing the parties all the documentation available to ensure that the workers' representatives have a complete picture of the project so they can make their proposals.

In accordance with these rules, in 2009 there were numerous discussions with the unions at both the national and local level on the reorganization of the Divisions.

The most important regarded the Infrastructure and Networks Division, with the conclusion of the national discussion phase on the effects of the organization of the electricity network following the HV-MV-LV integration.

Following the establishment of the new Renewable Energy Division, in April the Generation and Energy Management Division concluded its discussions with the national union leadership on the new organizational structure of the hydroelectric production units of the Generation Business Area. The Division initiated the procedure pursuant to article 47 of Law n. 428/1990 and subsequent amendments for their transfer to the newly established NEWCO Srl of the "Bolzano" division of Enel Produzione SpA.

On June 5, 2009, the Sales Division concluded its discussions with the unions on

the reorganization of the Division, which has undergone an extensive structural rationalization, in order to consolidate and develop its leadership in the Italian electricity market. Subsequently, in October, discussions with the national unions on the new organizational structure of Credit were concluded.

The project to incorporate the Engineering and Innovation Division was implemented and thus the procedure pursuant to article 47 of Law n. 428/1990 for the transfer of the Division from Enel Produzione to the new company as from April 1, 2009 was initiated.

Finally, on November 11, 2009, the signing of the agreement under article 2112 of the civil code concluded the procedure pursuant to article 47 of Law 428/1990 regarding the merger of Sfera Srl into Enel Servizi Srl. The transfer of the resources to Enel Servizi Srl will take place as from May 1, 2010.

In 2009, Enel commissioned a study of industrial relations at Enel and in the electricity industry from 1987 to 2007 from the scholars (A. Accornero and T. Treu) who had already produced a study on industrial relations at Enel from the nationalization (1963) to 1986. The 2009 study, "The Great Transformation of the Electricity Industry", focused in particular on the liberalization of the industry and the consequent transformation of the Company and change, after collecting facts and contributions from both the Company and the unions.

In accordance with the most important rules of the third Framework Agreement at Endesa, which has been in effect since April 2008, organizational changes in **Spain** must be communicated to the workers' representatives in time, together with an explanation of the reasons for the measures and the impact that they will have on the workers concerned. The minimum notice period for employees is one month. As far as the employees of Ascó - Vandellós are concerned, the collective bargaining agreement provides for meetings and talks, but does not provide for a minimum notice period for union representatives.

In **Slovakia**, in accordance with the Labor Code, the minimum notice period in case of organizational changes is 3 months. However, the notice period may be shorter with the explicit consent of the employee.

In **Russia**, employers must notify employees in writing of changes in the articles of their individual employment contracts two months in advance. This notice period is also required for changes in collective bargaining agreements, to which individual contracts formally refer. The process of changing collective bargaining agreements provides for the following steps. The employer sends a notice to the main union to discuss the changes. Within 7 days after receiving the notice the union must show up to discuss and within 2 weeks from the request the parties must share the documentation necessary to support the talks. To optimize the talks and make them more effective, there is a corporate committee on industrial relations, which includes members of the "Labor Union Councils" of the plants and the company's head of personnel.

In **Romania**, the employer must notify employees in writing of any interruption of employment 30 days (managers) or 15 days (other employees) in advance. The notice period for changes in the collective bargaining agreement, instead, is 60 days and the parties may agree to extend the validity of specific parts of the existent agreement. To optimize the application of the provisions of the collective agreement and make them effective, there is a mixed committee consisting

representatives of the company and of the unions, whose task is to settle disagreements.

In **Argentina**, the minimum period for changes in job conditions is normally 48 hours, but it is not explicitly specified in the collective bargaining agreement.

In **Colombia**, regulations do not provide for a minimum notice period for the rescission of contracts in the following cases: restructurings, outsourcing of operations, expansion plans, new prospects, new acquisitions, or total or partial sale.

In **Brazil**, every time there are significant operating changes, employees and their representatives must be promptly informed.

In **Peru**, there is no provision for informing employees in the event of organizational changes. In case of outsourcing, the regulations in force apply, but they do not provide for a minimum notice period. If the contract is rescinded for economic reasons that concern at least 10% of the workforce, the labor union must be informed and the procedure must be approved by the public authorities. In case of winding-up, restructuring, or bankruptcy, a minimum notice period of five days is required by legislative decree n. 845.

OCCUPATIONAL HEALTH AND SAFETY

Health and the central importance of the individual are prime and irremissible values that distinguish the culture of the Enel Group, whose mission statement highlights its commitment to ensuring future generations a better world.

The Company's great concern for safety is shown by the positive results of the climate survey carried out at the end 2008, which recorded a remarkably widespread participation rate of close to 80% and thus provided a representative picture of the Enel world.

In effect, 6% of the questions asked regarded safety, revealing how employees perceive the attention dedicated by the Company to this issue. The results showed that about 80% of employees were satisfied by the concrete actions concerning safety, day by day, and acknowledged in particular the commitment of their managers in disseminating the safety culture.

In 2009, various initiatives were undertaken throughout the Enel Group to improve safety standards and achieve excellence in safety, many of which were part of the **"Integrated Nine-Point Safety-Improvement Plan"**, launched in September 2008, which represents the strategy adopted by Enel to pursue the objective of **"zero injuries"** and unites all the Divisions and countries in a coordinated effort. The project is based on the top management's strong commitment and the adoption of a trans-Group approach to safety, which distinguishes 9 areas where actions can improve safety processes. During the year, for each area the

Company developed specific projects and initiatives aimed at:

1. promoting safety culture at all levels;
2. revising contract processes from the safety point of view to align contractors with Enel's safety standards;
3. developing communication initiatives aimed at always keeping safety awareness high;
4. making the reporting and analysis of injuries and the management of emergency situations increasingly prompt and effective;
5. improving safety training throughout all operations;
6. introducing new indicators in order to improve safety performance monitoring and facilitate the involvement of all workers;
7. adopting a single safety standard in all workplaces, both in Italy and abroad;
8. reviewing the organization of safety in order to integrate it more in business operations and enhance the resources involved in safety;
9. fostering the sharing of experiences and *best practices* within the Group.

In 2009, the organizational structure of safety was revised in order to make its processes more efficient, promote greater integration of safety in business operations, and foster knowledge sharing.

For these reasons, the Company established the Safety Steering Committee, which consists of the Heads of the Enel Group Divisions and the Heads of the Departments of Enel SpA and is entrusted with the tasks of approving the Company's strategic choices and policies regarding safety, promoting trans-Group initiatives aimed at disseminating and developing safety culture, and periodically re-examining the effectiveness of the processes of managing safety issues at the Group level.

The safety organizational structure was revised to strengthen both the Parent Company's guidance and coordination role with regard to the Divisions through the establishment of the Safety Unit (which is divided into three areas: Safety Policies and Reporting, Safety Improvement, and Safety Integration) and guidance and coordination within the Divisions, as well as to institute country-level Safety Units in **Romania, Russia, and Slovakia**.

Furthermore, an assessment and development project was started up throughout the Group to strengthen the safety professional family by establishing a plan for individual training and development.

Several years ago, the Divisions and companies of the Enel Group started to equip themselves with Occupational Health and Safety Management Systems according to the international OHSAS 18001 standard. By now all the Divisions have certified their managements systems. Enel Green Power also completed its certification process for **Italy** in 2009.

Following the promulgation of Law 123/07, which extended the application of administrative liability of organizations to the crimes of manslaughter and serious or very serious bodily harm without malice aforethought committed in violation of the regulations on the protection of occupational health and safety, Enel revised its compliance program pursuant to Legislative Decree n. 231/2001 to include a special part – called special Part F – whose purpose is to make all the employees to whom it is addressed follow rules of conduct that comply with the provisions in order to prevent the commission of crimes in violation of the regulations on the protection of occupational health and safety. In effect, the adoption and effective implementation of a safety management system ensures that the Company will be protected from administrative liability for the aforesaid crimes. Following the issue of Legislative Decree n. 81 of June 8, 2009, special Part "F" was updated

and approved by the Board of Directors of the Parent Company.

The involvement of the management represents an essential lever for the widespread dissemination of safety culture in all areas and at all levels. For this reason, as part of the "Nine Points" project the Company promoted the direct participation of the Division Heads and the Department Heads of Enel SpA as executive sponsors of the 9 work teams.

Managers perform an essential role and must feel that they are "safety leaders" by behaving responsibly and thus providing a model for their colleagues.

Therefore, the Enel leadership model was recently revised to include safety behavior and distinctive safety values, such as risk assessment and perception, promotion of the culture of excellence and continual improvement for safety, attitudes towards rules and procedures, etc. Furthermore, the leadership charter – a guide aimed at promoting a common approach to safety for all managers, with the objective of defining the conduct of the "safety leader" – was drawn up and disseminated by cascade and a support video was produced.

In addition, the general training model now includes a part dedicated to managers, which is aimed at fostering an increased and more informed acceptance of the responsibilities connected with the role of "safety leader" and promoting a vision of safety as a factor of competitiveness and an opportunity to improve organizational life by highlighting the close link among safety, the quality of work processes, and the expected organizational results.

A big boost was also given to the safety walks. These are operating visits to workplaces made by the management to promote safety culture and ensure that the regulations are applied and safety behavior is adopted, as well as to inspect the condition and maintenance of the facilities and plants. Safety walk guidelines were drawn up and disseminated with a view to making them a consolidated practice.

In 2009, about 3,000 safety walks were carried out throughout the Group.

Training and drills constitute an essential instrument for preventing occupational injuries. For this reason, a great effort was made again in 2009 with regard to both the economic commitment (with more than 19 million euro spent on activities to train and inform employees, amounting to about 240 euro per person) and to the number of hours dedicated (more than a million hours of safety training in 2009, amounting to 12.5 hours per person).

Specifically, during the year Enel developed a general training model aimed at defining the key capabilities regarding safety that characterize the role of "safety leader". This model integrates specific training initiatives concerning safety: from training courses for newly hired employees and leadership training to training courses for employees who manage contracts and monitor contractors to training and awareness-raising regarding safe driving.

Working safely should become "automatic", an intrinsic feature of personal life styles in all daily activities and business operations. The training courses currently planned for employees, especially newly hired ones, were revised from this perspective with the objective of having knowledge about safety become part of the culture of all employees from the moment they start work at Enel and the experience acquired carrying out activities regarding occupational safety become an essential requirement. In this regard, the safety programs that are part of the JET and Welcome courses for newly hired employees were redesigned with a view to getting the participants involved and making them responsible and a

more intense training course was instituted for the newly hired employees of the operating Divisions, whose purpose is to provide technical knowledge about safety. Particular attention was dedicated to the engineers who will be working in technical areas, for whom a period of "field" safety training was established. This training lasts 6 months, alternating sessions of on-the-job training, awareness-raising activities, and participation on specific projects. Training for operating personnel in all the Divisions and foreign countries continued intensely.

In **Italy**, with the cooperation of Enel University, about 19 editions of the training courses required by law for those who are heads of or assigned to the Prevention and Protection Service were held, totaling about 13,600 hours. In addition, the "Safety 24/7" project was implemented for the employees of the entire Group. This project is aimed at drawing attention to safety even in activities that seem to be low-risk, in order to be safe 24 hours a day every day of the week. Beginning in April 2009, the Company also implemented, pursuant to Legislative Decree n. 81/08, a project to train the approximately 500 Employee Safety Representatives, who were elected at the end of 2008. The structure, program, and content of the course were agreed on with the unions. Twenty-three training sessions were organized at 14 regional facilities throughout Italy, with about 16,350 hours of training in all.

The Company's means of communication constitute essential instruments for keeping a channel on safety open in order to keep awareness of this issue high. For example, every month the magazine "Enel Insieme" dedicates an entire page to health and safety, highlighting initiatives, projects, and results; the corporate intranet contains a dedicated section with studies, documents, and news on the subject; the corporate TV periodically presents reports and special programs; and the dedicated website contains news, videos, and photos of the initiatives with a focus on safety undertaken throughout the Enel world.

In 2009, a number of initiatives were begun to inform employees and make them more aware, using different languages to communicate the same message: "zero injuries".

The most important communication initiative carried out in 2009 with regard to integration was the second International Safety Week, a trans-Group project whose objective is to focus the attention of all workers on the issue of safety for one week through various training, communication, and awareness-raising initiatives involving not only Enel employees, but also contractors and communities. The purpose of the project is to make all colleagues assume responsibility for safety and promote a uniform vision and common approach in all the countries where Enel has operations.

The second International Safety Week, which took place in December 2009, included the direct participation of Endesa for the first time. During the opening meeting, in which representatives of industry and institutions participated, the Chairman of Confindustria's Technical Committee for Safety awarded Enel a prize for its commitment to safety, giving Chief Executive Officer Fulvio Conti a shield and emphasizing that it was the first prize of this kind that Confindustria had ever awarded to a company. During "safety week", almost 1,000 initiatives were carried out, involving about 70,000 people.

The first International Safety Week, which took place in 2008, received a prize from the Sodalitas Foundation as the "Best project for enhancing human capital". Improve the processes of reporting and analyzing injuries in order to prevent their

repetition: these are the guidelines of the revision of the organizational procedures for the analysis of injuries that was carried out in 2009.

In effect, the Company issued an Organizational Procedure on reporting and analyzing injuries that provides for:

- > a meeting of the Analysis Group in case of serious and fatal injuries and events considered particularly significant;
- > the introduction of the Study Committee to define any strategic actions aimed at improving the safety processes of the whole Group;
- > the initiation of the follow-up process on the state of the implementation of the improvement measures defined after every injury to prevent such events.

In addition, the near-miss policy was introduced, which provides guidelines for implementing in all the Divisions and companies of the Group an effective process for noting, communicating, and managing unforeseen events connected with work that did not cause an injury or damage to plants or equipment only because of a fortuitous interruption of the chain of events, but which had the potential to cause them.

The trend of constantly decreasing injuries at Enel continued in 2009. *In the last 5 years, injuries have decreased by 48% with regard to the seriousness rate and 56% with regard to the frequency rate.*

A process was begun in 2009 to integrate the Key Performance Indicators (KPI) currently adopted for monitoring safety processes and to this end a policy statement was issued regarding the definition, implementation, and reporting of the safety KPI, whose objective is to define a minimum set of key indicators to efficiently and uniformly measure, assess, and monitor the Company's performance in occupational health and safety.

As part of the KPI connected with injuries, the so-called downstream or trailing KPI, a new indicator was introduced: the frequency rate, which focuses attention on several kinds of particularly serious injuries involving the business (electric, falling from a height, crash-crush-cut, toxic agents, asphyxiation-explosion-thermal action for gas leaks).

For the 2009 data, see the LA7 indicator on page 217.

The injury rates of contractors were also defined.

New upstream or leading KPI were introduced along with the downstream KPI regarding the following macro-areas:

- > behavior observation;
- > safety checks;
- > management of near misses;
- > informing, training, and drilling;
- > management involvement, and;
- > monitoring contractor safety.

Implementation has begun on a centralized information system of global reporting for the management of safety data that allows the collection, homogenization, and filing of data from heterogeneous sources to be automated and the interpretation, historicization, and extrapolation of the data supporting decision making to be speeded up (for example, the calculation of rates, trends, or KPI). In addition, the system lends itself to the presentation and sharing of the information through the use of interactive instrument panels with advanced reporting functions based on graphic interfaces.

During 2009 the number of the participants in MBO for whom safety objectives are provided was further increased. *In effect, 43% of the participants in*

MBO had at least one objective connected with health and safety issues. In addition, the weight of safety was increased and new parameters regarding the preventive measures adopted to improve safety standards – the so-called upstream indicators – were introduced together with the objectives linked with the reduction of injuries.

The process of integrating the different foreign companies of the Enel Group was strengthened in 2009. Following the completion of Endesa's acquisition, an integration project was started regarding aspects of safety and aimed at aligning the most important processes, creating synergy, and implementing programs of operating excellence. The International and Renewable Energy Divisions conducted several safety surveys aimed at monitoring the management of safety abroad and establishing remediation plans to resolve the problems identified. In addition to the aforesaid International Safety Week, in April the second Safety Community Meeting was held in Rome, with the participation of the Enel management and the safety heads of the companies of the International Division. The purpose of the meeting was to share the main survey findings and best practices.

A project to create a cycle of continual improvement through the sharing and integration throughout the Group of the best practices in each country is Visual Safety, which inherited the experience of the Generation and Energy Management Division's Safety Together project. The project is based on the adoption of visual management instruments and their application to the assessment and management of risks (e.g., safety line, DVR in the field) and maintenance (e.g., visual display boards) and a balanced approach of top-down and bottom-up initiatives (e.g., safety idea collection). In 2009, the project was implemented in **Russia**, at the Nevinnomysskaya GRES plant – which has completed the first stage of visual management and has begun the second stage, based on the active involvement of the workers – and launched at the same time in Canada, at the San Felicien plant.

Firmly convinced that the safety of the workers of contractor firms should be protected like the safety of Enel's own workers, in 2009 the Company promoted a series of initiatives to raise awareness and disseminate the culture of safety among contractors, too, by implementing projects aimed at aligning such firms with Enel's safety standards.

In particular, a revision of contracting processes was begun by the contractor team of the Nine Points project with the objective of aligning the companies that work for Enel with the Company's safety standards.

The Company also implemented a new qualification method with the introduction of specific and more stringent safety requirements, which include a careful assessment of the firms with regard to all the aspects connected with safety (injury history, organization, remedial actions, training, etc.). Training courses for all the contractor personnel – which are necessary to obtain qualification – were consolidated, with sessions specifically on the implementation of the safety regulations applicable to Enel's activities. The Company then increased the number of product categories in the qualification process, with greater use of the selected suppliers.

In 2009 there was a 10% increase in the use of qualified suppliers, which constituted 17% of the suppliers used for work and services.

A specific indicator dedicated to safety was included in the vendor rating model and the execution of work was monitored more closely. The result of this rating is shared with the contractors, which – if there are problems – must undertake remedial actions immediately, under penalty of exclusion from the list of Enel suppliers.

The number of product categories in vendor rating was increased significantly. In 2008, there were only 57 categories, whereas at the end of 2009 there were 281 categories monitored.

Rating criteria were established for the selection of firms regarding the actual implementation of safety management systems.

New contract clauses were prepared which, in case of serious and repeated violations of occupational safety regulations, provide for rescission of the contract or the application of penalties.

All the Divisions started up a plan to provide more information and monitor contractors more closely during the execution of work. In particular, the Generation and Energy Management Division started up the greater support action project, which includes the setting up of a group of experts to monitor daily the activities carried out by firms engaged in plant maintenance. A series of initiatives was also started to inform contractors and raise their awareness with regard to safety. The Infrastructure and Networks Division produced a video on the correct methods of working and organized **Contractor Safety Days** to get contractors to understand the importance that safety has for the Enel Group. The Safety 24/7 project was also extended to contractors, in particular, through the production of a multi-lingual pocket book for the contractors of the Generation and Energy Management and Engineering and Innovation Divisions.

LA6

Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.

The Enel Group has numerous formal committees created in accordance with specific agreements with the representatives of its workers both in Italy and abroad.

In **Italy** these formal committees are the:

- > **Safety and Health Committee of the Workers of Enel Distribuzione SpA, which represents 23.9% of the Enel Group's workers;**
- > Equal-representation Committee on worker training of the Infrastructure and Networks Division, which represents 24.5% of the Enel Group's workers;
- > Equal-representation committee of the Generation and Energy Management Division, which represents 8.3% of the Enel Group's workers;
- > Safety Observatory on the worksite at Torrealvaldiga Nord – near Civitavecchia, in Rome province – which represents about 1,100 people, amounting to 100% of the area (with 90 Enel employees and 11 people dedicated full-time to workplace safety);
- > Meeting pursuant to article 35 of Legislative Decree 81/08, which is attended by the employer or his representative, the head of the prevention-and-

protection service, the competent doctor, and the workers' safety representative. Called at least once a year, the meeting represents 100% of the companies in Italy to which Legislative Decree 81/08, which adopts the EU directives, applies.

As far as the international boundary is concerned:

- > in **Russia** – health and safety committees representing 25% of all the workers;
- > in **Romania** – health and safety committees representing all the workers;
- > in **Slovakia** – health and safety committees representing all the workers;
- > in **Spain** – 100% of the workers are represented by a formal committee, as established by Endesa's collective bargaining agreement;
- > in **Chile** – 26 health and safety committees in the different companies that work for Endesa, representing more than 75% of the workers;
- > in **Peru** – 16 health and safety committees in the different companies that work for Endesa, representing more than 75% of the workers;
- > in **Colombia** – a committee for each of the companies that work for Endesa. At Emgesa, there is a central committee consisting of 6 sub-committees, representing plants and groups of plants. The committees represent less than 25% of the workers.

In all the other subsidiaries outside of Italy there is an ad hoc group of workers and specialists dedicated to safety, from the point of view of both prevention and monitoring.

LA7

Rates of injury, occupational disease, lost days, and absenteeism, and total number of work-related fatalities by region.

The figures regard a boundary of 80,528 workers. Even though it does not constitute a limit, it should be noted that the population considered does not include the employees of the companies consolidated proportionally or Endesa Portugal, Belgium, Albania, and branches. Slight injuries are not included in the data recorded.

The calculation of the days of absence from work because of injury refers to solar days and the count begins on the day after the day on which the injury occurred. The following data concern the **lost-time injuries frequency rate** by region regarding 2009 (the 2008 data consolidated 67.5% of Endesa):

- > **Total Enel Group (including Endesa): 0.719** (0.736 in 2008);
- > Enel Group (excluding Endesa): 0.742 (0.782 in 2008 1.105 in 2007);
- > Americas (including Endesa): 0.560 (0.490 in 2008);
- > Americas (excluding Endesa): 0.708 (0.559 in 2008 and 1.123 in 2007);
- > Europe excluding Italy: 0.411;
- > Europe excluding Italy (and Endesa): 0.086 (0.080 in 2008 and 0.324 in 2007);
- > Italy: 1.014 (1.069 in 2008 and 1.332 in 2007).

The **lost day rate because of injuries (LDR)** for 2009 breaks down as follows:

- > **Enel Group including Endesa: 28.9** (30.02 in 2008);
- > Enel Group (excluding Endesa): 29.69 (31.94 in 2008 and 43.79 in 2007);
- > North America and Latin America (including Endesa): 11.97 (7.634 in 2008);
- > Enel Americas (excluding Endesa L.A.): 11.09 (5.864 in 2008 and 15.085 in 2007);
- > Europe without Italy: 22.93;
- > Europe without Italy (excluding Endesa Eu): 4.48 (6.943 in 2008 and 18.46 in 2007);
- > Italy: 40.60 (42.53 in 2008 and 51.81 in 2007).

As far as the absenteeism rate (AR) is concerned – the number of days of absence from work, excluding leaves for vacations, family reasons, study, and maternity or paternity, compared to the total number of days worked and multiplied by 200,000 – in Italy the downward trend continued. In effect, in 2009 (8,018 injuries and illnesses were recorded), significantly lower than in the previous years (8,805 in 2008, 10,146 in 2007, and 10,078 in 2006).

If items such as extended leaves, strikes, military service, paid leaves, and union leaves are included in the calculation, the 2009 figure is 13,336.

There were 3 fatal occupational injuries in 2009, including one in Italy following a traffic accident while the employee was in service, one in Slovakia because of drowning during underwater activities, and one in Romania from electric current during repair work.

The data reported regard 2009 and were calculated as in the previous Report, in conformance with the “ILO Code of Practice on Recording and Notification of Occupational Accidents and Diseases”.

The data regarding previous years, calculated according to the method formerly in use, are available in the “The Numbers” section of this chapter and in the Sustainability Report of the year concerned.

The injury frequency rate in the Enel Group has decreased by 56% in the last 5 years, reducing the 2005 value of 8.16 to the 2009 value of 3.59 (which includes Enel Rete Gas, which left the Group in September 2009). The operating frequency rate, which highlights several categories of injuries that are particularly serious and are connected with the energy business (electric shocks, falling from a height, crash-crush-cut, noxious agents, asphyxia-explosion-thermal action from gas leaks) was 1.02 in 2009. The seriousness rate, instead, has decreased by 48% in the last 5 years, falling from about 0.27 in 2005, to 0.14 in 2009, and in Italy alone from 0.28 in 2005 to 0.20 in 2009.

As far as contractors are concerned, the Divisions continued to extend their monitoring of the workers of companies that carried out work for Enel.

> With respect to last year, in 2009, in addition to the Engineering and Innovation Division, the Generation and Energy Management, Renewable Energy, and International (partial data for Bulgaria and Slovakia) Divisions and Endesa monitored the performance of their contractors.

The following are the data regarding the **LTIFR of contractors, broken down by region, for 2009:**

- > **Total: 1.177** (2.341 in 2008);
- > Americas: 0.959;
- > Europe without Italy: 1.407;
- > Italy: 2.432.

The lost day rate (LDR) regarding contractor firms breaks down as follows for 2009:

- > **Total: 19.27;**
- > Americas: 18.10;
- > Europe without Italy: 16.80;
- > Italy: 44.53.

As far as the serious and fatal injuries of contractor workers during work carried out for Enel are concerned, there was an increase, because the boundary included Endesa. There was a total of 144 injuries, of which 17 were fatal and 127 serious. In this regard, Enel is convinced that the safety of contractor workers should be protected like that of its own workers. For this reason, in 2009 the

Company promoted a series of initiatives to raise awareness and disseminate the culture of safety among contractors, too, by implementing projects aimed at aligning them with Enel's safety standards. In particular, the contractor team of the "Nine Points" project started to revise the contracting process from the safety point of view in order to align the firms that work for Enel with the Company's safety standards, dealing with issues such as the qualification process, vendor rating, the introduction of special contract penalty clauses in case of violations regarding occupational health and safety, informing contractor workers better when the job starts, and improving the monitoring of contractors during the execution of the work.

The occupational disease rate (ODR) is not easy to record, especially with regard to contractors. Beginning in 2010, the Company will develop a shared process that enables the information to be recorded at the Group level, with regard to both Enel employees and contractor personnel.

For further details, see the table on page 236.

LA8

Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.

The Supplementary Health Care Fund for Enel Group employees (FISDE) was created following an agreement between Enel and the unions of electricity industry workers in March 1997 as a fund for Enel personnel. The Fund assists its members in essentially three ways:

- > directly or indirectly reimbursing members for medical expenses not covered by the National Health Service;
- > helping persons with disabilities or who are in a situation of social emergency (such as, for example, drug and alcohol addiction, maladjustment);
- > initiatives involving preventive medicine.

The FISDE's main initiatives in the field of preventive medicine were the tumor-prevention campaign, in cooperation with the the Lega Italiana per la Lotta ai Tumori (LILT), and the campaign for the prevention of cardiovascular disease, in cooperation with the Associazione Nazionale Medici Cardiologi Ospedalieri (ANMCO).

As an alternative to participating in the prevention programs established with the LILT and the ANMCO, FISDE members can avail themselves on the free health care market of the services included in the tumor- and cardiovascular-disease-prevention protocols and then request the Fund to reimburse them within the established expense ceilings.

As far as the disabled are concerned, the FISDE provides a differentiated series of personal services and group activities for members of the Fund for the Disabled.

The "personal services" aim to improve the quality of the life of the individual, including by helping the latter to integrate in a more satisfying way in the different social systems to which he or she belongs, such as, for example, school or the workplace.

The purpose of the services provided is to supplement the family's purchasing power with regard to medical and social services and the acquisition of equipment that can improve the life of the disabled person.

The group services and activities regard cultural, recreational, and sports initiatives, which are chosen by the Board of Directors and are addressed to the entire community of members. Among the activities in question, special mention should be made of the training courses for the parents of young disabled people.

The Social Action Protocol also includes particular assistance programs.

Recipients	Education and training		Counseling		Risk prevention and control		Pay	
	YES	NO	YES	NO	YES	NO	YES	NO
Workers	■		■		■		■	
Families of workers		■	■			■	■	
Communities		■		■		■		■

The Enel workers potentially exposed to particular risks are:

- > those who enter or work on sites with a source of “ionizing radiation” risk;
- > those who work in power plants with a significant risk of accidents, as defined in Italy by Legislative Decree 334/99 (“Seveso Bis”) and other laws on the matter, which adopt EU regulations or international standards; and
- > those who, in general, work in operating environments of production and distribution.

Enel’s deep commitment to prevention and monitoring the risks for the physical and mental health of its workers is expressed in its Health and Safety policy, whose purpose is to assess the sources of risks in the work environments and to align Italy and the companies abroad, both from the organizational point of view and with regard to the activities to implement, taking into account local situations and the regulations in effect. The process of integration moved forward with the Integration Handbook, which also aligns the newly acquired Endesa with the Group, as well as the International Safety Week, in which all the workers of the Group were involved in numerous initiatives and events regarding the safety of the individual.

A Safety Survey is currently in progress which will provide a comparative picture of the countries in which Enel is present in order to ensure the uniformity, comparability, or equivalence with regard to all the regions concerned.

Specifically, there are various initiatives and activities in progress to improve the health of workers. First of all, it should be noted that Enel has been a “no-smoking” company since 2002 and took a clear stand against the risk even before Law n. 3 of January 16, 2003 – whose article 51 extended the prohibition of smoking to all places open to the public – which set an example for subsequent similar laws in a number of European countries.

Constant activity to inform and train employees is aimed at the prevention of health risks connected with office work, such as disturbances caused by the use of video terminals and a sub-optimal micro-climate.

The year 2009 was also the year of the A/H1N1 flu, about which Enel carried out an impressive information campaign and implemented an emergency plan that included voluntary vaccinations for employees with duties of particular importance for the continuity of the electricity service.

Another very important initiative undertaken in 2009 involved assessment of the risk of work-induced stress. This kind of risk, which is relatively new, is caused by inappropriate management of the organization and processes of work, conditions and environment of work, subjective factors, and communication. The risk of work-induced stress is now internationally considered a concrete threat to the health and safety of workers, and thus Enel started up a structured and continuing project whose first results will be presented by August 1, 2010, as required by article 28 of Legislative Decree 81/08, as amended by Legislative Decree 106/09.

Endesa carried out a number of activities in **Spain** on prevention, promotion, and medical care with regard to work-induced stress, cardiovascular health, osteo-muscular pathologies, alcohol, drugs, smoking, and appropriate life styles. In **Argentina**, the following are carried out: annual checkups for employees exposed to noise risk, special x-ray examinations of the personnel, mitigation of the asbestos risk in plants, and periodical checkups for all employees. In addition, a program of no-smoking buildings is being implemented to prevent the risk of smoking-related diseases. In **Chile**, the following are carried out: checkups connected with cardiovascular diseases, breast and prostate tumors, and HIV and other sexually transmitted diseases. In **Peru**, a preventive and holistic policy was adopted to prevent vascular diseases and cancer. Finally, in **Brazil**, there is the Medical Monitoring and Occupational Health Program (PCMSO).

As far as the International Division is concerned, in **Romania** employees benefit from medical services that include regular checkups of the personnel.

Furthermore, there is a policy of support for the disabled and employees who have suffered occupational injuries. In addition, every year there are campaigns providing information and voluntary free vaccinations against the seasonal flu.

In **Russia**, all employees have at their disposal supplementary health insurance to which they can subscribe voluntarily and the company has signed agreements with qualified medical organizations, such as public hospitals, to provide constant medical care in the areas adjacent to the power stations. There is also highly qualified specialized medical personnel in the aforesaid power plants. Employees undergo annual checkups and those with long-term diseases receive additional monitoring.

In **Slovakia**, there are various training courses for employees: training for the newly hired, periodical (every two years) training, and special training. Risk assessment is performed annually for 36 different kinds of risks (radiation, noise, vibrations, dust, mercury, vapors, arsenic, etc.).

LA9

Health and safety topics covered in formal agreements with trade unions.

At Enel there are also agreements with unions regarding the health and safety of workers.

The information on the formal agreements regarding the health and safety of workers is not available at present for the companies abroad. Enel undertakes in the medium term to provide such information in the Sustainability Report.

Italy

- > National Collective Bargaining Agreement for workers in the electricity industry in compliance with national and local regulations (article 10, "Environment, quality, and workplace safety");
- > equal-representation committees;
- > collective agreements;
- > compliance with EU Directives if applicable.

The agreements regulate matters such as:

- > individual protection devices (IPD);
- > management-worker health-and-safety committees;
- > training, informing, and drilling;
- > complaints;
- > the right to refuse unsafe work;
- > the right to periodical inspections (the workers' safety representatives (RLS) may inspect workplaces in accordance with the provisions of article 50 of legislative decree 81/08).

There are also global agreements on:

- > conformance with ILO standards,
- > equal-representation bodies to resolve particular problems,
- > commitment with respect to performance objectives and standards.

Following the elections of the RSU/RLS at the end of 2008, the operating phase of these bodies began in 2009. As far as the RLS are concerned, it should be noted that their training, which is provided for by law, is carried out in a particular way, with the active involvement of the most representative unions with regard to the unit on communication techniques, both in the choice of the content and in the classroom as instructors. The aforesaid course includes 4 hours of training in addition to the 32 hours required by law in order to ensure homogeneous and complete basic training for all the RLS of the Group. Assessed positively in terms of its objectives, content, approach, and instructors and tutors, the course revealed an additional strong point in the discussions between the instructors and the RLS, which enabled them to share their experiences and create a kind of network among safety men and overcome qualms about the perception of their respective roles. This reinforced their understanding that in the field of safety counterparties do not exist and that everyone is working for the same goal: zero injuries. This was thus an important first concrete result of a participatory and bilateral approach to training, based on the principles contained in Enel's Corporate Social Responsibility Protocol.

TRAINING AND EDUCATION

Communication with employees

One of the cultural challenges of 2009 was a **turning point in the way of relating to the Company: from employee to Enel "citizen"**.

The application of the concept of citizenship for the people working at the Company requires a dialogue that necessarily must develop bottom-up processes. From this point of view, the activities of internal communication are aimed at promoting participation and engagement and involving the "Enel citizens" in consistent behavior towards the environment, safety, and respect for the different cultures and communities in which in which they work, in order to make them witnesses of these values also to the outside world.

The two key elements of this change were the climate survey and the leadership model.

The climate survey involved 11 countries and 40,642 persons, with a participation rate at the Group level of 77%. It included not only the listening aspect, but especially the process of returning the results and the beginning of one of improvement, in which people are responsible and involved. **The Leadership Model is also part of the distinctive way of "Being Enel"**. In 2009 a number of initiatives were promoted to created a leadership culture at the Company among the employees who are called to perform a role of responsibility because of their position. A 'vademecum' kit containing guidelines and professional and cultural references connected with the

management of leadership was produced and, in cooperation with Enel University, a series of publications – “The Orienta Notebooks” – for the top management was developed.

With the aim of sharing the corporate objectives and strategies, the Company developed a plan of cascade meetings on strategy, objectives, and great trans-Group projects which, starting with the top-management convention, which involved all colleagues in the Divisions, departments, and countries.

In 2009, 393 cascade events were organized, involving about 46,000 people in Italy and abroad.

Again with regard to concern for people, the family channel was enhanced as an instrument for facilitating integration and the feeling of belonging at Enel, which represents something more than simply a workplace.

Initiatives of this kind are the “**Family Days**”, which aim to involve families in the Company’s cultural and social initiatives according to specific needs. In 2009, 30 family days were held throughout the world, most of which focused on the topic of safety.

Along the same lines is the “**We are Energy**” competition, which is dedicated to the children of Enel employees. (For further information, see the section “Communities” in the SO chapter).

The value of inter-culturalism, which is also functional to a real multinational culture, also finds expression in other initiatives, aimed at creating interaction among the different cultures of the Group and fostering individual growth through cultural exchange. Among these are International Mobility and Cross-Cultural Training, through which people have the opportunity to acquire educational and professional experience in different cultures, thus enhancing their own culture.

To strengthen the basic principles of Enel’s Code of Ethics in every “citizen”, in 2009 the Company launched the Sustainability Stories project, which is aimed at the creation of a ‘corporate report’ containing stories of sustainability told by Enel people.

Support for the culture of no-waste constitutes another category of internal communication in line with sustainability. It is based on virtuous everyday behavior that contributes to the reduction of all kinds of waste, in particular within the Company.

The “**Green Place to Work**” competition regards the subject of environmental protection. It is addressed to Enel Green Power employees throughout the world and was launched for the first time at the end of 2009. The competition is intended to stimulate the employees to propose ideas and projects on the use of renewable energy sources in small and medium-sized firms.

Concern for the health and safety of people finds concrete expression in the “**Everyone for Safety**” plan, which was started up with the International Safety Week in November 2008 and acquired continuity in 2009 in a series of actions and programs both global – for all the Divisions and countries – and aimed at single companies according to specific needs. (For further information, see the “Safety” section on page 210).

The pilot project “**Work Smart Think Safe**” was also launched in 2009 in Romania and Slovakia. This is a competition aimed at stimulating people to propose ideas for improving safety. A total of 509 projects were received.

As far as operating excellence – another crucial matter for the Company – is concerned, a number of bottom-up actions were implemented to highlight and support the Zenith program.

Among these was the Zenith survey, which in 2009 involved 4 countries – **Italy, Bulgaria, Slovakia, and Romania** – through the distribution of a questionnaire to all the employees.

The purpose was to have the employees express an opinion on their level of awareness of the initiatives regarding operating excellence, their knowledge of and participation in the projects concerning excellence, and on the fame of the Zenith program.

With the goal of introducing collaborative, social, and international dynamics and fostering participation and integration among the thousands of people who make up the great Enel professional community, in 2009 the activities for implementing the new global intranet were started up.

The new intranet was conceived and constructed in function of the needs of the Company's employees, which were revealed partly by the survey on the use of the intranet carried out in Italy in October 2009. About 11,600 employees participated in the survey, which allowed the Company to collect assessments, comments, and suggestions on specific issues, which were useful for the development of the new instrument. Thus people were directly and explicitly involved, with a view to reinforcing their feeling of belonging at the Company. Finally, throughout 2009, *Enel Insieme*, Enel's house organ, dedicated a page to sustainability issues every month.

LA10

Average hours of training per year per employee by employee category.

In 2009, training focused on several high-quality activities, while the quantity fell slightly in both absolute and per person terms with respect to the previous year. The following are the most prominent initiatives undertaken in 2009.

1. Initiatives to support the dissemination of the leadership model, of which the following stood out:
 - **roll-out of Post-Performance-Review training courses**: 10 distinct courses were developed for three different professional figures – managers, professionals, and resource managers – with the goal of developing the areas needing improvement revealed by the management review, a structured assessment by heads based on the leadership model developed in 2008;
 - the **LINK project**, a new version of the training course addressed to newly appointed supervisors, with the goal of updating the role within the Group and aligning it with the leadership model;
 - the second edition of the **Leadership for Energy Executives Program**, an intensive one-week course for a selected group of Enel Group managers, conducted in partnership with the Harvard Business School;
 - the first three editions of the **Enel Business and Leadership project, carried out in cooperation with the LUISS and the Alma Business School**. This five-day training course on strategic business topics and leadership, management of human resources, and inter-culturalism was addressed to about 500 executives of the Enel Group. The 12 editions planned are financed using Fondirigenti funds;
 - the first edition of the Leadership for Energy Management program, a course carried out in partnership with the IESE and Bocconi University, which covers the same topics as the Leadership for Energy Executives program, adapted for a different target group, consisting of Talent Pool 2 managers.

2. Support for the integration and development of the foreign companies through technical training aimed at disseminating corporate best practices and the creation of a group of local instructors. Integration activities continued successfully also in 2009, with the training of the instructors of the Maritza East III power station in **Bulgaria** and those at Novaky and Vojany in **Slovakia**, who will give the courses on operation and maintenance to the plant personnel on their own, after a period of working together with instructors from Enel University. In addition, Enel University completed the development of both the training simulator for the lignite-fired Maritza III power plant and two others for the La Spezia and Santa Barbara power plants.
3. Support for the integration of Enel and Endesa, through projects involving knowledge management and best-practice sharing. The objective of these projects is to create a system of sharing best practices between Endesa and the other Enel Group companies and sharing knowledge within companies.

A study was begun to complete the internationalization of the Enel University catalogue for the main foreign companies of the Group, in particular for post-performance-review training regarding such fields as safety and accounting, finance, and control.

In **Italy**, employees had an average of 28.5 hours of training; abroad, 38.1.

In **Spain**, Endesa provided 46.9 hours of training, classroom and distance, per employee, in **Argentina** 14.2 hours, in **Chile** 59.7 hours, in **Brazil** 92.1 hours, in **Peru** 43.1 hours, and in **Colombia** 77.3 hours. The figures are not available by employee category, but by kind of activity and topic area.

Personal development is carried out by the Personal Leadership and Expert Leadership units.

There are also feedback, total assessment, and coaching processes.

See the table on page 233.

The information regarding Italy with regard to average number of hours of training broken down by employee category is reported only for 2009. The information regarding the number of hours of training per Group employee is reported only for 2009.

LA12

Percentage of employees receiving regular performance and career development reviews.

Development activities carried out in 2009 were organized around three important elements: assessment processes, talent management systems, and the climate survey.

Assessment processes regarded three different subjects: performance, capabilities, and potential.

As far as performance is concerned, in 2009 the foundations were created for a **significant extension of the assessment to new employee segments**. At Endesa, 13,369 people were assessed in Spain, Portugal, and Latin America. The other Enel Group companies are making a planning effort that will lead, in the first quarter of 2010, to coverage of over 50% of the remaining Group employees, in particular in Italy, by involving for the first time all the white-collar workers.

With regard to the assessment of potential and capabilities, the current processes at Endesa and the other Enel Group companies have partly different connotations

and therefore will be gradually aligned with the best practices. In 2009, Endesa assessed the potential of 1,800 people.

The Enel Group's assessment system is based on a Leadership Model very similar to the capabilities model used by Endesa. In the last few months of 2009, a mixed working group was set up with the objective of integrating instruments and processes as well as possible. In this regard, as early as the first quarter of 2010 Endesa's top management will be involved in the "360° Feedback" event that is annually dedicated to the top managers of the Enel Group.

With regard to the **talent-management system**, during 2009 the Company established a second-level Talent Pool (TP2) and updated the first-level one (TP1), which had been established in 2008. In addition, the TP1 2008 development projects were completed: individual coaching by external professionals and mentoring, with the direct involvement of the Company's first lines, voluntary activities that regarded 60% of the employees concerned.

Finally, the Company started up the training activities planned for TP1 and TP2 2009: the "**Leadership for Energy Executives Program**", in partnership with the Harvard Business School for the former and the Leadership for Energy Management program, in partnership with the IESE and Bocconi, for the latter.

The talent-management system was immediately solidly integrated among all the Group companies, with about one-third of the participants in the Harvard and IESE-Bocconi programs in 2009 coming from Endesa.

With regard to **the climate survey**, both the Enel Group and Endesa made a considerable investment in this managerial instrument, albeit with different timing.

In December 2009, Endesa had a survey carried out that involved all its employees, both in **Spain** and in **Latin America**. The focus was specifically on the company's integration in the Enel Group – the previous survey dated from 2007 – while for the other Group companies 2009 was dedicated to the analysis and use of the results of the survey carried out at the end of 2008.

In particular, the first few months of the year were dedicated to communicating the results through an extremely thorough cascade process which, in addition to using indirect communication instruments (brochures, videos, articles in the house organ, etc.), also included local meetings and presentations to which all of the approximately 53,000 employees involved in the survey were invited.

Also in the first part of 2009, the Company put into operation an online reporting instrument, which enabled the direct heads of the more than 600 organizational units on which the survey was based not only to read their own information, but to also be made responsible for the definition and implementation of the plans for improvement.

The plans were drawn up and approved and more than 1,000 improvement actions are currently being implemented at the local level, ranging from communication and the revision of working methods to managerial style and meritocracy.

Scheduled for the end of 2010, the next climate survey will involve all employees of the Enel Group, including Endesa's.

See the table on page 233.

DIVERSITY AND EQUAL OPPORTUNITY

Equal opportunity at Enel

The Company's concern for the issues of diversity management found concrete expression during 2009 in a specific initiative: the founding, together with ten other large multinational companies, of an association whose purpose is to support female corporate leadership.

"**Valore D**" (W, or Woman, Value) stems from the awareness, confirmed by a McKinsey study, that companies with a significant number of women in their top management have better results, from the point of view of both organizational health and economic performance. Among the association's objective is to carry out a program of activities that enables companies to capture the benefits stemming from greater participation by talented women in corporate dynamics and women to express their professional capabilities and have them acknowledged.

Enel thus is a member of "**Valore D**" in order to be part of a network of companies that intends to experiment with innovative instruments regarding the management of diversity and equality.

It has been about one year since "**Valore D**" was founded. Enel has contributed – though the active participation of its representatives – to guiding the "launch" phase of the association, as well as to planning and implementing its activities.

The main initiatives have involved, and will involve, Enel women (developing managers and professionals) as participants, and focused on the following areas:

- > **skill building**, with the goal of strengthening the credibility of women in high-level managerial roles through training aimed at increasing their business capabilities and reinforcing the elements that define leadership;
- > **mentorship**, supporting women throughout their career with a senior figure to guide personal and professional growth;
- > **role modeling**, through the identification of the key characteristics, both professional and other, of successful managers;
- > **flexibility**, which aims to develop proposals for innovating the world of work, creating instruments and equal opportunity for growth or women, and facilitate a lifestyle that reconciles private and professional life.

In an organizational situation that has to deal more and more with multiculturalism and thus with issues of diversity and equal opportunity for everyone, Enel's policy is therefore to support the growth of women so that they can increasingly contribute to the growth and development of the Company.

LA13

Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity

The Board of Directors of Enel SpA consists entirely of men, as does Endesa's. Detailed information on the system of Corporate Governance is available in the Annual Report, which can be consulted in the Investor Relations section of Enel's institutional site (<http://www.enel.com/en-GB/investor/>). See the tables on page 230 and page 235 of this Report.

LA14

Ratio of basic salary of men to women by employee category.

At Enel, the collective bargaining agreement in force establishes that the basic salary must be the same for men and women in the same employee category.

See the table on page 233 of this Report.



The Numbers

KPI	UM				%	Boundary
		2009	2008	2007	2009-2008	2009-2008
LA1 NUMBER AND COMPOSITION OF EMPLOYEES						
Workforce						
Total workforce	(n.)	81,208	75,981	73,500	5,227	6.9
Hours worked	(mil.h)	147.3	134.6	93.0	12.7	9.5 Enel
Breakdown by geographical area and region						
						Enel ⁽¹⁾
Italy	(n.)	38,121	40,327	41,746	-2,206	-5.5 Enel
Valle d'Aosta	(n.)	179	177	180	2	1.1 Enel
Piedmont	(n.)	2,512	2,748	2,915	-236	-8.6 Enel
Lombardy	(n.)	4,226	4,641	4,829	-415	-8.9 Enel
Trentino Alto Adige	(n.)	350	364	371	-14	-3.8 Enel
Veneto	(n.)	3,070	3,309	3,452	-239	-7.2 Enel
Friuli Venezia Giulia	(n.)	443	466	491	-23	-4.9 Enel
Liguria	(n.)	1,088	1,155	1,210	-67	-5.8 Enel
Emilia Romagna	(n.)	1,949	2,069	2,159	-120	-5.8 Enel
Tuscany	(n.)	3,475	3,708	3,847	-233	-6.3 Enel
Marche	(n.)	707	733	764	-26	-3.5 Enel
Umbria	(n.)	668	753	767	-85	-11.3 Enel
Lazio	(n.)	6,332	6,169	6,147	163	2.6 Enel
Abruzzo	(n.)	824	914	951	-90	-9.8 Enel
Molise	(n.)	267	277	294	-10	-3.6 Enel
Campania	(n.)	2,840	3,050	3,246	-210	-6.9 Enel
Apulia	(n.)	2,312	2,462	2,546	-150	-6.1 Enel
Basilicata	(n.)	427	474	502	-47	-9.9 Enel
Calabria	(n.)	1,330	1,433	1,487	-103	-7.2 Enel

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
Sicily	(n.)	3,166	3,382	3,619	-216	-6.4	Enel
Sardinia	(n.)	1,632	1,695	1,817	-63	-3.7	Enel
Italian employees seconded abroad	(n.)	324	348	152	-24	-6.9	Enel
Abroad	(n.)	43,087	35,654	31,754	7,433	20.8	Enel
Iberia	(n.)	13,498	9,257	9,595	4,241	45.8	Enel
France	(n.)	69	48	22	21	43.8	Enel
Greece	(n.)	89	35	26	54	154.3	Enel
Romania	(n.)	4,878	5,205	3,459	-327	-6.3	Enel
Bulgaria	(n.)	629	733	815	-104	-14.2	Enel
Slovakia	(n.)	5,831	5,962	6,408	-131	-2.2	Enel
Russia	(n.)	4,390	4,950	573	-560	-11.3	Enel
North America	(n.)	280	267	224	13	4.9	Enel
South America	(n.)	13,142	9,059	8,564	4,083	45.1	Enel
Other (Asia, Africa, Australia) 2009 - Endesa (other Europe) 2007	(n.)	172	-	2,068	-	-	Enel
Branches abroad	(n.)	109	138	-	-29	-21.0	Enel (2)

LA1 Composition

Professional categories							
Executives	(n.)	1,351	1,139	1,069	212	18.6	Enel
Supervisors	(n.)	8,817	7,490	6,569	1,327	17.7	Enel
White-collar	(n.)	48,928	43,529	43,602	5,399	12.4	Enel
Blue-collar	(n.)	22,112	23,823	22,260	-1,711	-7.2	Enel
Executives	(%)	1.7	1.5	1.5	0.2	11.0	Enel
Supervisors	(%)	10.9	9.9	8.9	1	10.1	Enel
White-collar	(%)	60.3	57.3	59.3	3	5.2	Enel
Blue-collar	(%)	27.2	31.4	30.3	-4	-13.2	Enel
Education							
University graduate	(%)	24.8	19.9	14.8	5.0	24.9	Enel (3)
High school graduate	(%)	44.2	48.7	49.1	-4.5	-9.2	Enel (3)
Other	(%)	31.0	31.5	36.2	-0.5	-1.5	Enel (3)

LA13 Age

Average	(years)	43.2	45.8	43.3	-2.7	-5.8	Enel (4)
Less than 35	(%)	19.7	18.4	14.6	1.3	7.1	Enel (4)
From 35 to 44	(%)	26.8	27.7	27.7	-1.0	-3.4	Enel (4)
From 45 to 54	(%)	38.2	40.1	45.0	-1.9	-4.8	Enel (4)
From 55 to 59	(%)	13.6	12.2	11.8	1.3	11.0	Enel (4)
60 and over	(%)	1.7	1.5	0.9	0.21	13.6	Enel (4)

LA13 Years at Enel

Average	(years)	17.0	18.9	19.1	-1.9	-10.1	Enel (4)
Less than 10	(%)	28.7	26.2	18.2	2.5	9.6	Enel (4)
From 10 to 19	(%)	21.3	24.0	27.0	-2.6	-11.0	Enel (4)
From 20 to 29	(%)	31.3	31.2	33.7	0.1	0.3	Enel (4)
From 30 to 34	(%)	12.8	14.5	19.8	-1.7	-11.7	Enel (4)
35 or more	(%)	5.9	4.1	1.3	1.7	41.6	Enel (4)

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
LA1	Relations and procedures of flexible employment						
	Fixed-term contracts						
Fixed-term contracts	(n.)	2,180	4,749	504	-2,569	-54.1	Enel ⁽⁴⁾
Beginner/training contracts	(n.)	602	545	453	57	10.5	Enel ⁽⁴⁾
Total fixed-term contracts	(n.)	2,782	5,294	957	-2,512	-47.4	Enel ⁽⁴⁾
Fixed-term contracts as % of total	(%)	3.4	7.2	1.8	-3.82	-52.7	Enel ⁽⁴⁾
Permanent contracts	(n.)	78,317	67,744	51,984	10,573	15.6	Enel ⁽⁴⁾
Permanent contracts as % of total	(%)	96.6	92.8	98.2	3.8	4.1	Enel ⁽⁴⁾
Part-time employment	(%)	1.6	1.7	2.0	-0.1	-7.0	Enel ⁽⁴⁾
Full-time contracts	(n.)	79,811	65,819	51,863	13,992	21.3	Enel ⁽⁴⁾
Part-time contracts	(n.)	1,288	1,144	1,077	144	12.6	Enel ⁽⁴⁾
Overtime work	(%)	4.8	5.1	5.3	-0.3	-6.2	Enel ⁽⁴⁾
Interns at Enel	(n.)	1,370	198	236	1,172	591.9	Enel ⁽⁵⁾
LA4	Employees covered by collective-bargaining agreements						
Employees covered by collective-bargaining agreements Italy	(n.)	38,121	40,327	41,746	-2,206	-5.5	Italy
% employees covered by collective-bargaining agreements	(%)	100	100	100	-	-	Italy
Employees covered by collective-bargaining agreements. ENA	(n.)	21	22	22	-1	-4.5	ENA
% employees covered by collective-bargaining agreements.	(%)	8	8	10	-1	-9.0	ENA
Employees covered by collective-bargaining agreements ELA	(n.)	229	108	203	121	112.0	ELA
% employees covered by collective-bargaining agreements.	(%)	45	24	50	21	84.4	ELA
Employees covered by collective-bargaining agreements EUFER	(n.)	56	47	36	9	19.1	EUFER
% employees covered by collective-bargaining agreements	(%)	100	100	100	-	-	EUFER
Employees covered by collective-bargaining agreements Romania	(n.)	4,832	5,167	3,459	-335	-6.5	Romania
% employees covered by collective-bargaining agreements	(%)	99	99	99	-	-	Romania
Employees covered by collective-bargaining agreements Bulgaria	(n.)	573	678	747	-105	-15.5	Bulgaria
% employees covered by collective-bargaining agreements.	(%)	91	92	92	-1	-1.4	Bulgaria
Employees covered by collective-bargaining agreements Slovakia	(n.)	5,221	5,962	6,405	-741	-12.4	Slovakia
% employees covered by collective-bargaining agreements	(%)	100	100	95	-	-	Slovakia
Employees covered by collective-bargaining agreements Russia	(n.)	3,904	4,270	-	-366	-8.6	Russia
% employees covered by collective-bargaining agreements	(%)	89	89	-	-	-	Russia
Employees covered by collective-bargaining agreements Endesa	(n.)	21,549	13,808	-	7,740	56.1	Endesa
% employees covered by collective-bargaining agreements	(%)	82	77	-	4.5	5.8	Endesa

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
LA2 Changes in number							
New hires	(n.)	4,644	3,065	2,362	1,579	51.5	Enel
Boundary changes	(n.)	7,618	3,891	18,971	3,727	95.8	Enel
Terminations	(n.)	7,035	4,475	6,381	2,560	57.2	Enel
Terminations Italy	(n.)	1,942	2,193	3,895	-251	-11.4	Italy
Terminations abroad ENA	(n.)	30	-	-	-	-	ENA
Terminations abroad ELA	(n.)	119	-	-	-	-	ELA
Terminations abroad EUFER	(n.)	7	-	-	-	-	EUFER
Terminations abroad Romania	(n.)	416	-	-	-	-	Romania
Terminations abroad Bulgaria	(n.)	134	-	-	-	-	Bulgaria
Terminations abroad Slovakia	(n.)	532	-	-	-	-	Slovakia
Terminations abroad Russia	(n.)	718	-	-	-	-	Russia
Terminations abroad Endesa	(n.)	3,137	-	-	-	-	Endesa
Terminations abroad France	(n.)	8	-	-	-	-	France
Terminations abroad Greece	(n.)	8	-	-	-	-	Greece
Terminations women	(n.)	994	275	474	719	261.5	Enel ⁽⁶⁾
Terminations men	(n.)	2,920	1,918	3,421	1,002	52.2	Enel ⁽⁶⁾
Terminations women as % of total	(%)	25	13	12	13	102.6	Enel ⁽⁶⁾
Terminations men as % of total	(%)	75	87	88	-13	-14.7	Enel ⁽⁶⁾
Terminations < 30 years	(n.)	251	35	36	216	617.5	Enel
Terminations 30 - 50 years	(n.)	686	112	184	574	512.3	Enel
Terminations > 50 years	(n.)	2,977	2,046	3,675	931	45.5	Enel
Terminations < 30 years as % of total	(%)	6	2	1	5	302.1	Enel
Terminations 30 - 50 years as % of total	(%)	18	5	5	12	243.1	Enel
Terminations > 50 years as % of total	(%)	76	93	94	-17	-18.5	Enel
Turnover rate	(%)	8.7	5.9	8.7	2.8	47.1	Enel
EUSS Average years of service of employees terminated during the year							
- men	(years)	26	-	-	-	-	Enel ⁽⁶⁾
- women	(years)	18	-	-	-	-	Enel ⁽⁶⁾
- age < 30 years	(years)	2	-	-	-	-	Enel ⁽⁶⁾
- age 30 - 50 years	(years)	10	-	-	-	-	Enel ⁽⁶⁾
- age > 50 years	(years)	29	-	-	-	-	Enel ⁽⁶⁾
- average	(years)	24	-	-	-	-	Enel ⁽⁶⁾

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
PROFESSIONAL SATISFACTION AND DEVELOPMENT							
Compensation							
% variable pay Italy	(%)	6.9	6.0	6.0	0.9	15.2	Italy
% variable pay ENA	(%)	12.9	10.5	12.0	2.4	23.3	ENA
% variable pay ELA	(%)	27.0	22.5	23.0	4.5	19.8	ELA
% variable pay EUFER	(%)	18.2	-	-	-	-	EUFER
% variable pay Romania	(%)	7.4	8.0	9.0	-0.7	-8.2	Romania
% variable pay Bulgaria	(%)	11.5	40.3	36.0	-28.8	-71.4	Bulgaria ⁽⁷⁾
% variable pay Slovakia	(%)	20.1	6.8	7.0	13.3	196.6	Slovakia ⁽⁷⁾
% variable pay Russia	(%)	17.6	18.7	nd	-1.1	-5.7	Russia ⁽⁷⁾
% variable pay Endesa Spain	(%)	6.0	-	-	-	-	Endesa Spain
% variable pay Peru	(%)	43.1	-	-	-	-	Endesa Peru
% variable pay Brazil	(%)	9.2	-	-	-	-	Endesa Brazil
% variable pay Chile	(%)	20.4	-	-	-	-	Endesa Chile
% variable pay Colombia	(%)	10.8	-	-	-	-	Endesa Colombia
% variable pay Argentina	(%)	5.9	-	-	-	-	Endesa Argentina
Incentives Italy	(%)	3.4	3.6	3.2	-0.1	-3.3	Italy
Incentives ENA	(%)	4.6	-	-	-	-	ENA
Incentives ELA	(%)	71.7	-	-	-	-	ELA
Incentives EUFER	(%)	13.8	-	-	-	-	EUFER
Incentives Romania	(%)	3.2	-	-	-	-	Romania
Incentives Bulgaria	(%)	100.0	-	-	-	-	Bulgaria
Incentives Slovakia	(%)	11.1	-	-	-	-	Slovakia
Incentives Russia	(%)	8.4	-	-	-	-	Russia
Incentives Endesa Spain	(%)	28.2	-	-	-	-	Endesa Spain
Incentives Peru	(%)	80.6	-	-	-	-	Endesa Peru
Incentives Brazil	(%)	88.5	-	-	-	-	Endesa Brazil
Incentives Chile	(%)	87.3	-	-	-	-	Endesa Chile
Incentives Colombia	(%)	73.2	-	-	-	-	Endesa Colombia
Incentives Argentina	(%)	87.9	-	-	-	-	Endesa Argentina
Executives with Stock Options	(%)	93.6	95.0	98.5	-1.4	-1.5	Enel ⁽⁸⁾
LA14 RAL ratio women/men (average)							
Executives	(%)	82.8	82.5	84.8	0.3	0.4	Italy
Supervisors	(%)	92.3	92.8	92.4	-0.5	-0.5	Italy
White-collar	(%)	92.0	91.6	91.2	0.5	0.5	Italy
Blue-collar	(%)	81.0	86.0	90.7	-5.0	-5.8	Italy
RAL women/men (average)	(%)	85.7	88.9		-3.2	-3.6	Abroad ⁽⁹⁾
RAL women/men (average) Italy	(%)	98.1	-	-	-	-	Italy
RAL women/men (average) ENA	(%)	95.8	-	-	-	-	ENA
RAL women/men (average) ELA	(%)	64.2	-	-	-	-	ELA
RAL women/men (average) EUFER	(%)	149.0	-	-	-	-	EUFER
RAL women/men (average) Romania	(%)	93.0	-	-	-	-	Romania
RAL women/men (average) Bulgaria	(%)	92.2	-	-	-	-	Bulgaria
RAL wome/men (average) Slovakia	(%)	88.1	-	-	-	-	Slovakia
RAL women/men (average) Russia	(%)	71.6	-	-	-	-	Russia
RAL women/men (average) Endesa	(%)	82.4	-	-	-	-	Endesa

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
LA12 Development							
Assessments Italy ⁽¹⁰⁾	(%)	1.0	20.6	2.5	-19.6	-95.3	Italy
Assessments abroad	(%)	18.4	24.5	15.8	-6.1	-24.9	Enel ⁽¹¹⁾
LA10 Training							
Hours of training per employee	(h)	28.5	28.9	25.4	-0.4	-1.3	Italy
Total hours training (distance + classroom)	(,000 h)	1,125.9	1,183.2	1,096.1	-57.3	-4.8	Italy
House of managerial training (distance)	(,000 h)	21.3	22.9	46.7	-1.6	-7.1	Italy
Hours of classroom training	(,000 h)	1,104.6	1,160.2	1,049.3	-55.6	-4.8	Italy
- managerial	(,000 h)	457.0	260.2	195.8	196.8	75.7	Italy
- specialized	(,000 h)	647.6	900.1	853.6	-252.5	-28.0	Italy
Average hours of training per executive	(h)	43.3	-	-	-	-	Italy
Average hours of training per supervisor	(h)	30.7	-	-	-	-	Italy
Average hours of training per white collar	(h)	22.4	-	-	-	-	Italy
Average hours of training per blue collar	(h)	38.8	-	-	-	-	Italy
% distance training	(%)	1.9	1.9	4.3	0.0	0.6	Italy
Online courses ⁽¹²⁾	(n.)	151	1,154	1,151	-1,003	-86.9	Italy
Access to the EDLS	(%)	99.8	67.6	66.8	32.3	47.8	Italy
Hours of training per employee	(h)	38.1	-	-	-	-	Abroad
Total hours training (distance + classroom)	(,000 h)	3,171	-	-	-	-	Abroad
Hours of managerial training distance	(,000 h)	253	-	-	-	-	Abroad
Hours of training in classroom	(,000 h)	2,917	-	-	-	-	Abroad
- managerial	(,000 h)	738	-	-	-	-	Abroad
- specialized	(,000 h)	2,179	-	-	-	-	Abroad
Average hours of training per executive	(h)	59.6	-	-	-	-	Abroad
Average hours of training per supervisor	(h)	51.6	-	-	-	-	Abroad
Average hours of training per white collar	(h)	33.1	-	-	-	-	Abroad
Average hours of training per blue collar	(h)	38.4	-	-	-	-	Abroad
Knowledge Management and Internal Communication							
Corporate intranet	(%)	86.5	87.5	76.7	-1.1	-1.2	Italy
Corporate intranet	(%)	66.6	-	-	-	-	Abroad ⁽¹³⁾
Expense for KM systems	(million euro)	1.4	2.8	3.2	-1.4	-50.1	Enel
Hard copies of Enel Insieme	(n./month)	40,000	53,000	53,000	-13,000	-24.5	Enel
Sustainability							
Sustainability training per employee	(h)	9.2	12.3	10.5	-3.2	-25.7	Italy
Sustainability training per employee	(h)	15.7	-	-	-	-	Enel

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
Corporate climate							
Spontaneous resignations of supervisors and executives	(n.)	27	25	49	2	8.0	Italy
People-care projects	(n.)	6	5	3	1	20.0	Italy
Employees concerned	(n.)	8,780	15,000	672	-6,220	-41.5	Italy
Employees actually participating	(n.)	6,403	11,000	69	-4,597	-41.8	Italy
Absentee Rate ⁽¹⁴⁾	(i)	8,018	8,805	10,146	-787	-8.9	Italy
Benefits	(euro/ employee)	2,394	2,404	2,561	-10	-0.4	Electricity workers Italy
Employees covered by Benefit Plan	(n.)	33,550	34,974	38,261	-1,424	-4.1	Italy
Employees covered by Benefit Plan	(%)	88	87	92	1	1.5	Italy
Spontaneous resignations of supervisors and executives	(n.)	91	-	-	-	-	Enel ⁽¹³⁾
People-care projects	(n.)	19	-	-	-	-	Enel ⁽¹⁵⁾
Employees concerned	(n.)	14,550	-	-	-	-	Enel ⁽¹⁵⁾
Employees actually participating	(n.)	6,558	-	-	-	-	Enel ⁽¹⁵⁾
Absentee Rate	(i)	8,818	-	-	-	-	Enel
Benefits	(euro/ employee)	4,526	-	-	-	-	Enel ⁽¹³⁾
Employees covered by Benefit Plan	(n.)	53,368	-	-	-	-	Enel ⁽¹³⁾
Litigation with employees							
Total proceedings	(n.)	2,588	2,455	2,651	133	5.4	Enel ⁽¹³⁾
% of litigation as defendant	(%)	60.1	69.8	77.4	-9.7	-13.9	Enel ⁽¹³⁾
LA13 EQUAL OPPORTUNITY							
Equal opportunity							
Female employees	(n.)	15,579	14,593	8,721	986	6.8	Enel ⁽³⁾
Executives and supervisors	(n.)	3,610	2,275	903	1,335	58.7	Enel ⁽³⁾
White-collar	(n.)	10,102	8,492	7,092	1,610	19.0	Enel ⁽³⁾
Blue-collar	(n.)	1,867	3,826	726	-1,959	-51.2	Enel ⁽³⁾
Women as % of workforce	(%)	19.2	21.8	16.5	-2.6	-11.9	Enel ⁽³⁾
Women as % of supervisors and executives	(%)	35.5	38.0	17.6	-2.5	-6.7	Enel ⁽¹⁶⁾
Women's pay as % of men's	(%)	80.5	87.1	88.3	-6.6	-7.5	Enel ⁽³⁾
Disabled employees							
Disabled employees / protected categories	(n.)	2,477	2,315	2,387	162	7.0	Enel ⁽⁸⁾

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
LA7 SAFETY ⁽¹⁷⁾							
Serious and fatal employee occupational injuries							
Employee occupational injuries	(n.)	40	48	12	-8	-16.7	Enel
Fatal injuries	(n.)	3	1	1	2	200.0	Enel
Serious injuries	(n.)	37	47	11	-10	-21.3	Enel
Injury rate	(n.)	3.6	3.7	5.5	-0.1	-2.4	Enel
Lost-Time Injuries Frequency Rate	(rate)	0.719	0.736	1.105	-0.02	-2.3	Enel
Serious-injury rate	(n.)	0.14	0.15	0.22	-0.01	-4.8	Enel
Lost Day Rate	(rate)	28.9	30.0	43.8	-1.1	-3.8	Enel
Safety expense per employee	(euro)	1,307	1,243	1,044	64	5.1	Enel
Training	(million euro)	19.4	19.5	13.2	-0.1	-0.4	Enel
Health supervision	(million euro)	4.3	3.5	2.6	0.8	23.6	Enel
PPD (Personal Protection Devices)	(million euro)	17.0	14.5	10.3	2.4	16.9	Enel
Personnel cost	(million euro)	46.4	44.0	25.8	2.4	5.3	Enel
Studies, research, and other	(million euro)	18.1	7.4	2.0	10.7	144.1	Enel
Total	(million euro)	105.2	88.9	53.8	16.3	18.3	Enel
N. employees	(n.)	80,528	71,568.0	51,560.0	8,960.0	12.5	Enel
Health checks ⁽¹⁸⁾	(n.)	78,900	56,652	22,581	22,248	39.3	Enel
Contractor and third-party workplace injuries							
EUSS Serious and fatal contractor occupational injuries							
	(n.)	144	80	15	64	80.0	Enel ⁽¹⁹⁾
Serious and fatal third-party injuries	(n.)	67	90	88	-23	-25.6	Enel
LA4 UNION RELATIONS							
Relations with unions							
Rate of union membership electric industry	(%)	62.7	70.7	72.6	-8.0	-11.4	Enel
Rate of union membership gas industry	(%)	63.3	69.7	69.6	-6.4	-9.2	Italy

(1) In 2009, excluding RES and EUFER; in 2008 excluding Endesa Portugal and other minor companies, branches, EUFER, France, Belgium, and Severenergia (Russia 40%). 2008 has been modified with respect to the figure published last year, because 100% of Endesa was considered instead of 67.05%.

(2) In 2007 foreign "branches" were classified as Italy.

(3) Excluding in 2009 "branches" and other minor companies, totaling 109 persons; in 2008 France, "branches", Severenergia (Russia) and including only Endesa Spain; in 2007 excluding Endesa, Russia, France, Greece, Viesgo, and "branches".

(4) Excluding in 2009 "branches" and other minor companies, totaling 109 persons; excluding in 2008 France, "branches", Severenergia (Russia), and Endesa Portugal and minor companies; in 2007 excluding Endesa, Russia, France, Greece, Viesgo, and branches.

(5) Excluding in 2009 "branches" and other minor companies, totaling 109 persons; excluding in 2008 France, "branches", Severenergia (Russia), and including only Endesa Spain; in 2007 excluding Endesa, Russia, France, Greece, Viesgo, and branches.

(6) For 2009 the boundary is Enel, excluding Endesa, while in 2008 and 2007 the boundary is Italy.

(7) In Bulgaria, in 2008 and 2007 very large bonuses were paid. For Slovakia, in 2009 sales bonuses, individual incentives, and other bonuses were also included, while in 2008 and 2007 only the MBO was considered as a variable component. For Russia, the 2008 figure has been recalculated (18.7% as opposed to the 53.9% published last year, because a bonus that is always paid was considered in the variable part.

(8) For 2008 and 2007 the boundary is Italy.

(9) For 2008 excluding France, "branches", Severenergia (Russia), Endesa, ELA, EUFER, and Greece.

(10) The assessment campaigns are bi-annual.

(11) In 2008 excluding Endesa and Severenergia; in 2007 includes: ELA, ENA, EUFER, Romania, Bulgaria, and Slovakia.

(12) The number considerably decreased after the courses of greatest interest to Enel were refocused.

(13) Includes only Endesa Iberia.

(14) Excluding vacations, family reasons, maternity, study leaves, extended leaves, strikes, military service, paid leaves, etc. If we consider these items, the rate increases to 13,334.

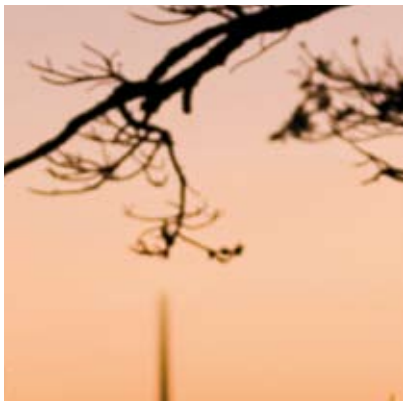
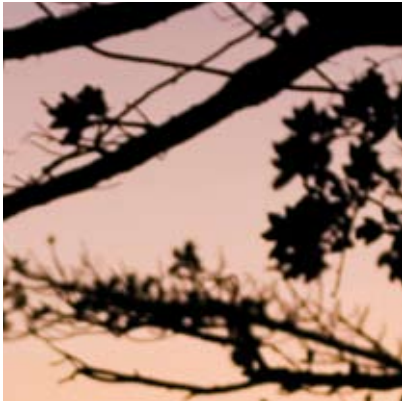
(15) Excluding Endesa.

(16) Excluding in 2009 branches and other minor companies, totaling 109 persons; excluding in 2008 Francia, branches, Severenergia (Russia), and Endesa; in 2007 excluding Endesa, Russia, France, Greece, Viesgo, and "branches".

(17) The data regarding Safety include Enel Rete Gas for only 9 months of 2009. The boundary does not include RES, EUFER, and Endesa Portugal.

(18) Includes, for Russia, tests regarding the level of blood alcohol that are carried out every day on a sample of persons, as well as the tests undergone by all drivers before they begin their shift, amounting to about 27,700 in 2009.

(19) 2008 was reclassified according to the Enel criteria (serious injury if the first prognosis is more than 30 days) and consolidated at 67.5% (% of Endesa owned).



HR - Human Rights Performance Indicators

Disclosure on Management Approach

The Code of Ethics

Since 2002, Enel has applied its Code of Ethics, which expresses its commitments and ethical responsibilities in the conduct of its business.

In 2009 the Code of Ethics was updated in order to respond to the reality of a large multinational Group, located in 23 countries on 4 continents. Specifically, with regard to the defense of human rights, Enel avoids any kind of discrimination based on age, gender, sexual preferences, health, race, nationality, political opinions, or beliefs. It guarantees the physical and moral integrity of its employees, working conditions that respect individual dignity, rules for well-mannered behavior, and safe and healthy work environments. Furthermore, it ensures that the work environment does not permit intimidation, bullying, or stalking or tolerate demands or threats aimed at inducing people to act against the law or the aforesaid Code of Ethics or in ways that offend any individual's moral and personal convictions. The Code of Ethics is binding for the actions of all employees, and all affiliated and allied companies, as well as the Group's main suppliers, are required to act in accordance with the general principles expressed therein.

The Auditing Department is entrusted with the task of auditing the application of and compliance with the Code of Ethics. To this end, it carries out specific activities aimed at verifying and promoting continuous improvement of ethics within Enel through the analysis and assessment of the ethical-risk control processes. It also has the task of analyzing reports of violations of the Code of Ethics. These activities are carried out with the support of the corporate departments concerned.

All stakeholders can report violations or suspected violations of the Code of Ethics through dedicated channels. The Auditing Department provides for an analysis of the reports, possibly speaking with the person who wrote it and the person responsible for the alleged violation, protecting whistle-blowers against any type of retaliation, understood as an act entailing even the mere suspicion of discrimination or penalization, and ensuring the confidentiality of the whistle-blower's identity, without prejudice to good faith and the obligations of the law.

During 2009 243 reports were received (of which 40 are currently being analyzed) and 35 violations of the Code of Ethics were established. For further information, see the table on page 247.

PEOPLE CARE

As part of initiatives started by Enel to increase the well-being of individuals and of the business community, a specific unit called **People Care** was created within the Human Resource Department. Its task is to provide new tools and services to improve the work-life balance and to increase the quality of the environment and work systems, in order to promote our employees' well-being.

In Italy, the main areas of employee interest were identified through a dedicated preliminary survey. The most important areas were:

- > health and well-being;
- > taking care of the family;
- > commuting to work.

Considering that some of the needs connected with the aforesaid areas are well covered by the wide range of assistance and recreational services offered by social Institutions like FISDE, ARCA, Anse, and FOPEN, the **People Care unit has concentrated on some additional solutions which could support the concrete everyday needs of Enel workers**, at the same time focusing on developing a corporate culture founded on the values of sharing and mutual support among people.

In Italy, the first area is already well covered by FISDE (Supplementary Health Fund for Enel Group Employees), so initiatives were identified that are aimed at improving the well-being at the Company of employees with either temporary or permanent difficulties.

Therefore, the "**C'è posto per te**" ("There's room for you") service was implemented, which guarantees all Enel mothers-to-be a reserved parking space in the Company garage or in another affiliated facility.

Similarly, the "**C'è posto per te - legge 104**" ("There's room for you - law 104") service guarantees all seriously disabled employees a reserved parking space very close to the company entrance.

For visually impaired staff, a professional retraining project has been planned which, following appropriate training, allows them to work on activities that require the use of personal computers appropriately accessorized with hardware or software aids.

Personal health and well-being are also the result of actions consciously carried out by others. Based on this principle, two important initiatives were implemented in 2009. The first regarded days dedicated to blood donation. The "**Enel per la vita**" ("Enel for life") project involved bringing the medical facilities of a blood transfusion center into the Company. Participation was then facilitated for employees in the larger Rome locations, who could donate blood in the workplace and in complete safety. Everything was done according to the protocols prescribed by the regulations in force and, therefore, in the presence of medical and paramedical personnel using certified equipment, according to the three procedural steps: a preliminary interview, the verification of minimum required physical conditions, and the donation itself. The result of the three days held during the year made a considerable contributed to the achievement of self-sufficiency in Lazio, a region that suffers from a lack of donors and is constantly in a state of blood emergency. This also helped to spread a culture of solidarity and, finally, to draw attention to people's health, since all donors received the blood test results at the address specified by them, a process that is included in the procedures for safe donation.

The second important initiative saw the considerable **participation of Enel in helping Abruzzo, a region hit by a terrible earthquake on April 6, 2009**. Following the catastrophe, Enel employees could decide to donate the monetary equivalent of one hour of work by participating in the initiative promoted by the association of Italian industries and the labor unions CGIL, CISL, and UIL, and the union organizations Filcem, Flaei, and Uilcem. Each hour donated was then matched by Enel. The Company also contributed to other initiatives and overall contributed an amount that added up to 14% of what was donated by all Italian industries.

The second area, the **family**, is very well covered by the multiple services offered by ARCA (Recreational, Cultural, and Assistance Association for Enel Group Employees). We wanted to mainly address this area using technology, offering employees the possibility of purchasing IT equipment when it is scheduled to be replaced every four years and take it home for personal use. In this way, we promoted the use of a tool that is by now a resource for increasing knowledge, for communication, and for social integration. Considering that most schools use the Internet as a teaching instrument, this initiative is proposed especially to employees' families, and in particular to school-age children, who can find it useful to interact with a tool that is fully functioning for home use, although it may need to be replaced in the professional sphere. Moreover, the entire process is managed through an ad hoc system accessible through the company Intranet, which allows the employee to view the characteristics of the IT equipment, to find out the scheduled replacement times, and to compare the purchase price (which amounts only to the cost of removing Company information and programs) to the market price and then, if interested, to request the purchase be deducted from his or her salary.

With regard to the third area, commuting to work, during 2009 **a project was launched to provide incentives for using public transportation**. Coordinating the activities of six Enel Mobility Managers located in Italy, who were appointed pursuant to Decree 27.3.1998, "Sustainable mobility in urban areas" – the objective of which is to identify and propose sustainable mobility actions for employees' daily commutes – agreements were made with local public transportation companies for Enel employees to purchase discounted annual passes. Currently active in Rome (ATAC-Metrebuss), Milan (ATM-Ferrovie Nord), Piedmont (GTT), Ancona (ATMA), and Genoa (AMT-Trenitalia), they consist of discounts offered by transportation companies, sometimes in cooperation with local governments (municipal, provincial, regional), to which Enel adds a further discount ranging from 10% to 20% and spreads the final cost over twelve interest-free monthly installments deducted from salaries. Finally, everything takes place through a dedicated web platform, which manages the entire cycle from the subscription request to delivery, including insertion of the digital format photo, without any paper forms. The pass is then delivered to the employee directly at his or her workplace.

Since April 2009, when the service began, 1,335 employees out of 38,121 have participated by subscribing to an annual pass.

Also in the home-work mobility area, Enel started a Company car-pooling service, which includes particular advantages for employees who, on the way to and from work, make their own car available to co-workers, in groups of at least three people. The service is currently a pilot project for the Rome locations and will soon be extended to other cities.

INVESTMENT AND PROCUREMENT PRACTICES

Enel's continuous commitment to the environment has been consolidated with the Operational Purchasing Department project **Environmental Management and Green Procurement**.

The Environmental Management System includes policies, objectives, programs, and procedures that Enel has implemented and that are necessary to maintain environmental aspects under control and continuously improve services, taking the prescriptions of applicable law into consideration.

During 2009, the **Operational Purchasing Department obtained ISO14001 certification in the area of procurement-and-purchasing management regarding supplies and/or contracting for goods, work, and services.**

Green Procurement, which started in 2007, is a system for purchasing environment-friendly products and services, that is, **"those products and services which have a lower or reduced effect on human health and on the environment compared with others used for the same purpose"**.

Purchasing green means, therefore, to purchase a good/service taking into account the environmental impact that this could make during its life cycle, from raw material extraction to waste disposal.

A sample of Green Merchandise Groups was identified, for which the green process included **sustainability parameters in the qualification requirements** and in the technical specifications for tenders.

Furthermore, with a focus on continuous improvement, Enel has given and gives its suppliers a series of questionnaires to fill out with the aim of verifying their level of awareness regarding Green Procurement and any other initiatives adopted concerning environmental management.

In quantitative terms, in 2009, **508 million green euro were awarded, amounting to about 24% of the annual total.** Furthermore **546 million green euro were contracted out, amounting to about 21% of the annual total**, marking an increase with respect to 2008. The results highlight the positive trend in sustainable procurement and the growing commitment of Enel in green purchasing.

HR1

Percentage and total number of significant investment agreements that include clauses on human rights or that have undergone human rights screening.

For investment agreements executed by the Enel Group during 2009, see the paragraph "Key events of 2009" on page 25 of the Annual Report.

For this type of agreement, as well as for purchase agreements, in 2003 Enel adopted a procedure which requires the inclusion of specific clauses regarding recognition of and **adherence to the Enel Code of Ethics**.

In effect, the Code of Ethics requires observance of all laws and provisions that regulate employment relationships and of all laws and regulations that protect and safeguard the environment, as well as the observance of worker protection laws.

First-level Enel managers have been explicitly urged not to enter into cooperation agreements or to investigate the possibility of partnerships, acquisitions, or mergers if they have not ascertained that the party concerned accepts Enel's Code of Ethics. These clauses are also included in supply and service agreements with parties based in less developed countries or in countries with specific areas of risk. Furthermore, supply and service contracts generally require the observance of laws, regulations, and obligatory provisions established by the relevant authorities concerning the activities carried out, the materials used, employment contracts, and on-the-job health and safety. Finally, the Code of Ethics – which expresses the Company's commitments and ethical responsibilities in the conduct of its operations, and is based on specific principles of respect for and defense of the individual – is applied in all subsidiaries.

In effect, during their first meeting after an acquisition, the related boards of directors are required to adopt the Code of Ethics and the Zero Tolerance of Corruption Plan with a special resolution.

Regarding the Iberia and Latin America Divisions, 32 of the significant investment contracts (over 1 million euro) include clauses on human rights, amounting to 11.07%.

HR2

Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.

All contract-work contracts contain a clause that obliges the contractor to apply the National Collective Bargaining Agreement to its workers, and in general to comply with regulations regarding on-the-job health, safety, and hygiene, as well as wage, pension, and insurance obligations.

According to the Enel Code of Ethics, adopted by all Group countries, contracts with suppliers coming from "at risk" countries, as defined by recognized organizations, must include contractual clauses regarding human rights, like child labor and forced labor prohibitions, freedom to form unions and to associate, discrimination prohibition, and the obligations of safety and environmental protection.

These clauses require the supplier's participation in specific social obligations, such as adopting measures which guarantee the respect of fundamental workers' rights, the principles of equal treatment and non-discrimination, and the prohibition of child labor.

Furthermore, inspections at the production or operating facilities of the supplier company may be carried out in order to verify the satisfaction of these requirements.

In the Iberia and Latin America companies, 84.59% of the main suppliers and contractors have undergone human-rights screening.

NON-DISCRIMINATION

HR4

Total number of incidents of discrimination, and actions taken.

In 2009, two events regarding the discriminatory practice of mobbing occurred in Spain and two in Argentina.

FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING

HR5

Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.

Throughout the Enel group, a local and international regulation is applied that protects freedom of association and collective bargaining.

In order to monitor its operations in countries defined as at risk, **Enel refers to the information contained on the ILO website, supplemented by the evaluations of the FTSE4GOOD Advisory Committee and the research carried out by the Ethical Investment Research Service (EIRIS)**, whose partners include international research organizations, such as the Investor Responsibility Research Center.

Legal actions regarding alleged violations of these rights have not been undertaken.

Both Enel and the subsidiaries of Endesa have adopted general conditions which oblige suppliers to respect the workers' rights sanctioned in the first principle of the United Nations Global Compact or, in other cases, they have provided for a general clause of respect for applicable legislation.

The following are examples of clauses included in contracts.

Employees

"You undertake to endow contracted personnel with conditions which, with regard to regulations and wages, are not inferior to those contained in the collective bargaining agreements in force at the time when and in the place where their activities are carried out, as well as to duly meet your obligations regarding social security, insurance, and anything else required by the laws, regulations, and rules in force. Where provisions of the law and collective bargaining agreements are absent, you must apply the norms established by the single occupational categories concerned."

Union freedom

"You must ensure workers – without distinction and without prior authorization – the right to establish trade union organizations of their choosing and to join these organizations in accordance with the latter's bylaws."

Prohibition of discrimination, abuses, and harassment

"You undertake to treat your employees with dignity and respect, and to not use any form of physical, moral, sexual, psychological, or verbal abuse against them. Furthermore, you must not discriminate against them on the basis of their race, age, gender, sexual preferences, religion, nationality, social or ethnic origins, disability, union membership, or political affiliation."

CHILD LABOR

HR6

Operations identified as having significant risks for incidents of child labor, and measures taken to contribute to the elimination of child labor.

With regard to the entire Enel group, each of the countries where the Group is present has a local and international regulation that prohibits child labor. Legal actions regarding alleged violations of these rights have not been undertaken.

Both Enel and the subsidiary companies of Endesa have adopted general conditions which oblige suppliers to respect the workers' rights sanctioned in the first principle of the United Nations Global Compact or, in other cases, they have provided for a general clause of respect for applicable legislation. The following is an example of the clause included in such contracts.

Child labor

"You undertake to not employ in the process of your operations, either directly or indirectly, any person younger than the minimum age established by the legislation in force in the country in which the operations are to be carried out. In any case, whatever kind of work is assigned, it must not compromise the health, safety, or morality of minors, the term "minor" referring to any person who is less than 18 years old. Furthermore, you must keep at Enel's disposal registers and documents containing the personal data of all your employees who are less than 18 years old."

FORCED LABOR

HR7

Activities identified as having significant risk for incidents of forced or compulsory labor, and measures taken to contribute to the elimination of forced or compulsory labor.

Each of the countries where the Enel Group is present has a local and international regulation that prohibits forced labor.

Legal actions regarding alleged violations of these rights have not been undertaken.

Enel has adopted general conditions which obligate suppliers to respect the workers' rights sanctioned in the first principle of the United Nations Global Compact or, in other cases, it has provided for a general clause of respect for applicable legislation.

The following is an example of the clause included in such contracts.

Forced labor

"You undertake **to not use any kind of forced or compulsory labor, i.e. labor performed by persons under the threat of any kind of punishment**, who have not spontaneously volunteered (inmates, etc.). Nor shall you ask employees to 'deposit' money or documents proving their identity when they begin their employment for the purpose of retaining them against their will."



The Numbers

DMA
HR

ETHICAL AUDITING

Implementation of the Code of Ethics

KPI	UM	2009	2008	2007	2009-2008	2009-2008	%	Boundary
Total reports received, by stakeholder harmed ⁽¹⁾								
	(n.)	243	133	87	110	82.7		Enel
Shareholders	(n.)	61	39	2	22	56.4		Enel
Customers	(n.)	46	18	38	28	155.6		Enel
Employees	(n.)	76	47	36	29	61.7		Enel
Public at large	(n.)	14	6	3	8	133.3		Enel
Suppliers	(n.)	46	23	8	23	100.0		Enel
Total violations of the Code of Ethics ⁽²⁾								
	(n.)	35	29	16	6	20.7		Enel
Violations of the Code of Ethics regarding incidents of:								
	(n.)	35	26	16	9	34.6		Enel
corruption	(n.)	9	-	-	9	-		Enel
discrimination (mobbing)	(n.)	1	-	1	1	-		Enel
inappropriate use of corporate resources/ instruments	(n.)	6	1	1	5	500.0		Enel
other reasons	(n.)	19	25	14	-6	-24.0		Enel
Dismissals following violations of the Code of Ethics								
	(n.)	17	5	1	12	240.0		Enel

(1) Of the 243 reports received, 203 have been processed and 40 are still being analyzed.

(2) Violations of the Code of Ethics regarding 2008 increased by 3 with respect to the figure published last year, because when the 2008 Sustainability Report went to press, some reports were still being analyzed and it was only possible afterwards to identify with certainty whether they were violations.

HR



open
plants

Respect

Regulatory
Advisory Board



society

Playenergy

community
engagement



dialogue

historical archive

association



SO - Society Performance Indicators

Disclosure on Management Approach

Enel listens to society

Despite the worst crisis of recent decades and the disturbances it has caused in markets, Enel continued along its path of innovation, consolidation and integration last year. The industrial goals defined in its Strategic Plan were translated into an approach toward society based on transparency and dialogue that, while supporting business objectives, also created an ongoing discussion with stakeholders in the countries and communities in which Enel operates. Enel is a multinational player aiming to consolidate its relatively recent plan for international expansion through the operational and cultural integration of the different national entities that make it up. To achieve this goal, Enel worked daily throughout 2009 to protect its institutional relations in a structured manner, always operating in synergy with each country's government and supranational organizations and strengthening its capacity for geo-political analysis and its international network of relations. Against this background and with the introduction of a new Code of Ethics, Enel has further established its identity and its employees' sense of belonging, while paying special attention to integrity and responsibility.

81,000 employees in 23 countries who speak 10 languages: the diverse origins, cultures, and backgrounds of the Enel world are a precious asset that should be valued, but also integrated. This integration has been promoted through programs aimed at raising awareness within the corporate population, but has also been stimulated by distributing and sharing tools to help professional families exchange information, creating an internal network that facilitates remote dialogue between the greatest possible number of people.

Strong competition in the energy sector requires the continual improvement and development of technology enabling the production of clean, low-cost energy, optimizing the production process and enhancing plant efficiency. To respond to these global needs, Enel research is working on innovative production technologies and has been supported by increased investment in science in recent years. Enel has paired these projects with a communications strategy strongly focused on the distribution of technical and scientific information and aimed at enhancing the social acceptance of initiatives and infrastructure projects, thus enabling energy development in the countries where the Company operates. The objective is to reduce the complexity of information by simplifying language, thus making the dynamics of plant operation and technology more comprehensible to the general population and enhancing the level of approval. An innovative approach, it has been crucial to transforming Enel's dialogue with institutions, associations, and citizens into a collective discussion aimed at creating a sense of responsibility in all those involved. In effect, Enel aims to

continue improving its fiduciary relationship with partner companies, acting as a “good citizen” in all the countries worldwide where Group operations take place. **Transparent, continual, and complete communication has been the foundations of this important path in community engagement**, as has the exploitation of the expressive potential of new media. In particular, Enel’s internet presence was completely renewed in 2009 so as to ensure compatibility and correspondence with the interests of stakeholders. The new site www.enel.com, with a completely revamped look and more abundant content in both Italian and English, aims to enable web communication on a global level and effectively present Enel’s news and projects. The site also intends to lever the web 2.0 model to facilitate interaction between the site and users, offering various tools for sharing Enel documents and multimedia content, from videos to tutorials, which will be periodically highlighted and expanded and used to present Group news and projects. Additionally, the portal – among the first for large Italian companies – aims to provide a part of its information in a more immediate and basic manner, thus adapting to the speed of internet communications through the integrated use of images associated with contents and interactive tools. The design and creation of the new site, in particular the more complete and updated Sustainability section, were considered priorities over revamping the Sustainability Meter. To this end, a new project, described in the 2008 Sustainability Report, is under way and scheduled for launch during 2010.

Also of note as concerns communication with different stakeholders was the preparatory Sustainability Day Workshop, which took place on October 30, 2009. Over forty influential representatives from the sustainability field came from all over the world for the event, launching a global discussion on sustainability topics, which was also constantly posted on the project’s website (www.enelsustainabilityday.com).

Through the involvement of some of the most important international experts in the worlds of business, NGOs (non-governmental organizations), and universities, the goal of Sustainability Day, held in February 2010, was to identify new opportunities, share good practices, and create an international network of corporate responsibility.

Also in 2009, Enel established a **Regulatory Advisory Board** with the objective of stimulating and promoting public debate on the most important regulatory priorities, identifying the principal medium-/long-term trends in Italian and international regulation, and developing strategies and solutions based on research and more advanced study.

The Board includes diverse members in terms of both their professional backgrounds and their geographic locations, which enables it to provide a long-term vision of the topics discussed and stimulate a more in-depth and possibly exhaustive debate. The Board thus includes both Italian and foreign members from academia, public institutions, and the business world.

The Regulatory Advisory Board meets on a regular basis. In particular, due to the success and interest stimulated by its first public event, *An integrated climate and energy policy: what rules for the electricity markets of tomorrow?* (November 2009), Regulatory Advisory Board Conferences are now scheduled annually. The Board will also be expanded, with special attention paid to international representatives from the energy sector, so as to adequately reflect the various locations where Enel operates.

In order to maintain its economic, environmental, and social responsibilities, Enel will continue to place emphasis on exploiting – with particular regard to cultural and social change – the opportunities and challenges that it will continue to face as an important player in the international energy scene.

Endesa's projects focus on social change by following specific principles aimed at:

- > Providing access to electricity, integrating its operations with basic services for social change;
- > Environmental awareness;
- > Responding to the needs of the communities Endesa affects;
- > Contributing to the generation of wealth and jobs;
- > Ensuring continuous operation over time and strengthening best practices;
- > Paying attention to people in difficult situations, in particular those in rural or dislocated urban communities;
- > Cooperating with company representatives of the communities participating in projects;
- > Communicating in a transparent and consistent manner with society.

The guiding principle for each project is to “**think globally and act locally**”: Endesa's commitment to contributing to local development begins with the parent company and its local organizations and is achieved through the actions of its subsidiaries and companies throughout various countries.

EU19

Stakeholder participation in the decision-making process related to energy planning and infrastructure development

Enel has launched a strategic, organizational, operational, communication, and positioning analysis focused on the **governance of the mega-community** and characterized by proactive relationships and management and transparent stakeholder relations.

In **Italy** during 2009, the External Relations Department, through its Large-scale Infrastructure Projects unit (GPI), consolidated relations with the people and governments of the areas that host its large infrastructure, strengthening community initiatives through discussions, meetings, technical committees, and environmental monitoring initiatives conducted in cooperation with local representatives. Activities were concentrated in particular on managing the mega-community of the new coal-fired Torrealvaldliga Nord power plant in Civitavecchia and the future plant in Porto Tolle, in Rovigo province.

Additionally, for the re-launch of the Italian Nuclear Project, Enel is planning the construction of four 1,600-MW reactors over the next decade as part of a joint venture with EDF. Within this developing legal and legislative framework, the GPI unit was assigned the task of coordinating activities for obtaining permits and licenses for the new nuclear plants.

Enel examines and researches topics related to technology, risks, and impacts resulting from the construction of nuclear plants, which will affect local entities and communities following the launch of the project.

Endesa applies a holistic approach to the participation of stakeholders in the process of defining company strategy.

This is why the participation of stakeholders was essential to determining the objectives and planned actions to include during the drafting of Endesa's 2008-2010 Sustainability Plan, which focused on energy planning and infrastructure development. Stakeholders were consulted by numerous methods (research, analysis, interviews with opinion leaders, interviews with all management staff, public surveys, mass media analyses, etc.) that led to the identification of two principal challenges for the next 5 years: fighting climate change and establishing local roots. This means strengthening the company's connections with the local communities in which it operates, promoting the development of these communities, and achieving general **legitimacy in public opinion**. Stakeholders play an essential role in this process.

Endesa operates in a context where the social acceptance of projects requires, above all, rigorous procedures for analyzing and studying environmental impact, but also the desire to listen, value, and welcome the requests of the public, particularly those groups located near areas where projects are planned.

In **Spain**, entities are legally obliged to follow a public consultation process during energy planning and the development of infrastructure projects in order to obtain the environmental impact assessment required by law. This process is open to all stakeholders who would like to express their thoughts on the project and Endesa is obliged to respond to these remarks. The consultation process is public and transparent and objections are taken into consideration and evaluated with a view to possible inclusion in the project. Additionally, Endesa managers organize regular discussions with representatives from society at large.

In **Chile**, a direct dialogue is established with communities through the CSR manager, who visits plants in operation and those under construction, as well as local communities where projects are being considered. The CSR manager also establishes relations with nearby communities, in order to identify any potential impacts of projects and questions that may be raised by the community itself.

The legislative framework in **Slovakia** requires a complex procedure during the approval of each infrastructure development project and the identification of stakeholders who should be consulted.

Slovenské elektrárne is in the final phases of the EIA (Environmental Impact Assessment) process for the construction of units 3 and 4 at the nuclear plant in Mohovce, whose construction was suspended in 1992. In 2009 the construction process was resumed and consequently, as part of the EIA, Slovenské elektrárne organized public consultations expanded to include Bratislava and Vienna, to which all stakeholders were invited and involved in all aspects of construction. Experts from Slovenské elektrárne responded to all questions, including those not related to the EIA.

For communities located close to the nuclear power plant, two independent civil commissions of representatives and leaders from the community have been established and meet regularly with the Slovenské elektrárne management, facilitating the exchange of information on all planning developments and operations.

In **Romania**, Enel manages the energy distribution network and procurement for three large zones – Banat, Dobrogea, and southern Muntenia (where the capital, Bucharest, is located). When planning new projects for generating electricity

from clean coal and renewable and nuclear energy, Enel always develops close relations with local communities, as well as procedures for consulting local governments, authorities, consumer associations, the mass media, and communities. Consultations are currently underway aimed at establishing protocols for collaborating with the National Consumer Protection Agency and “Habitat”, the National Consumers League, with the goal of involving more representative consumer associations in Enel Romania’s decision-making process for launching new services/products or other initiatives and working toward decisions based on social consensus.

During the site planning and environmental authorization process for the new wind farms in the Dobrogea region, Enel Green Power completed all the necessary steps required by Romanian legislation, consulting local authorities during all phases and planning projects and initiatives to support local communities as part of a long-term partnership plan. Certain initiatives have already been developed, such as the education project for children in Valea Nucarilor and Casimcea.

EU20

Approach to managing the impacts of displacement

At times, the construction of new power plants results in the displacement of residents to other areas. The consequences for these people are radical life changes in terms of employment, the disturbance of social relations, and general changes in familial and social organization.

Enel’s approach to managing displacement focuses first of all on the identification and involvement of the people or individuals affected and foreseeable psychological and social problems, on both the individual and the group level. It is fundamental during this phase to collectively manage critical issues and proactively discuss and listen to the requests of the communities involved so as to overcome any opposition and misunderstandings and balance the interests of the company and those of society, in a perspective of sustainable growth. Also fundamental is an appropriate and transparent information campaign on the genuine need for the plant and valid alternatives to displacement, including complete information on the advantages and benefits of relocating residents.

Endesa’s approach to developing new investment projects in **Chile** is to establish relations with stakeholders from the first step in project design. In this way, the project and location can be analyzed and environmental, human and cultural features studied. Great importance is placed on local environmental conditions and communities living nearby that may be directly or indirectly impacted by the project, as well as on identifying the predominant cultural aspects of these communities through socio-demographic analysis. These preliminary studies enable the company to plan in advance the best tools to use in developing relationships with stakeholders, establishing a relationship based on dialogue and attention from the very beginning. No standard procedures exist, since the relationships established with each interest group change depending on the features of each project and the interest groups themselves.

The legislative framework in **Romania** requires compensation in the event of expropriation or displacement due to the construction of production or distribution facilities. The External Relations Department is responsible for managing these situations with appropriate measures and detailed information, including all details during discussions with consumer associations, and

communicating through all possible channels: the mass media, direct contact, and advertising.

For details on displacement during 2009, see the EU22 indicator.

EU21

Contingency planning measures, disaster/emergency management plan and training programs, and recovery/restoration plans

Enel Crisis Management consists of a set of procedures, infrastructure, and people whose purpose is to manage any effects caused by a critical event.

The system is based on an organizational procedure that defines the reporting process and critical-event management for the Enel Group, as well as specific operational procedures for each field of business.

A critical event is defined as an accidental, natural, or intentional real or potential event able to cause an impact in terms of the

- > continuity of company operations and/or;
- > internal/external damage and/or;
- > repercussions on public opinion.

This event can be classified one of three levels, depending on its estimated level of impact

- > **Code Green:** accidental, natural or intentional real or potential event able to cause a low impact and remediable with a specific predefined solution (operational instructions);
- > **Code Yellow:** accidental, natural or intentional real or potential event able to cause a medium impact and remediable with activation of the related predefined emergency plans;
- > **Code Red:** accidental, natural or intentional real or potential event able to cause a significant impact that requires the definition of ad hoc strategies.

The impact of a critical event is evaluated with the help of a matrix that identifies threshold values for each type of event. A degree of flexibility is permitted during the evaluation process (e.g., for events not described within the impact matrix or for events that occur in unforeseen circumstances).

The **Competent Contact Person** is a key figure in the critical-event management process and is responsible for analyzing events and initiating the internal operational structures for managing them within his related sphere of responsibility. This figure is also responsible for ensuring that the Enel Group Security Manager is notified of all events.

The **Security Manager** of the Enel Group is another key figure in the critical-event management process. After receiving a report from the Competent Contact Person, the Security Manager is responsible for evaluating the event and possibly convening a joint meeting of the Crisis Committee and the Coordination Unit.

The **Crisis Committee** of Enel SpA is responsible for the strategic management of events classified as Code Red. It is convened by the Security Manager upon authorization by the Chief Executive Officer and consists of the Top Management of the company.

The **Crisis Committee Support Unit** is convened by the Security Manager to manage the flow of information to/from the departments/companies involved in managing the event and is composed of representatives already identified within each corporate Division and department.

The **Crisis Committee meets in the Crisis Room** to coordinate the strategic management of the event and all information flowing from various company areas is directed there. Information on events is stored, so that each type of event will be available for consultation in the future.

The Room includes corporate internet applications that allow for real-time monitoring of the status of assets.

- > "Tableau de Board Security" – reporting and managing intentional events;
- > "GESI" – managing reports and interruptions in electricity distribution;
- > "SCP" – monitoring power plants.

The Crisis Room responds not only to Company, but also national needs. It is connected via videoconferencing with an infrastructure network for managing critical events, including, for example, the Department of Civil Defense and the Attorney General/Home Minister.

The Control Center continues the risk-control process begun by Enel, in compliance with the requirements of the EU Directive on the Protection of Critical Infrastructure.

The Control Center enables:

- > the development of a control center that ensures the effective functioning of security systems within Enel's strategic infrastructure;
- > the integration of safety-system management with procedures for critical event-management;
- > an enhanced capacity to react to events that could compromise business continuity and the safety of human resources.

The Crisis Management system was tested during 2009 in two critical event simulations:

- > "Extreme weather conditions blackout" (February 10, 2009);
- > "Nuclear Emergency" (October 21, 2009).

Following the earthquake in Abruzzo on April 6, 2009, Enel, via its representative on the Operations Committee of the National Civil Defense Department, helped manage the emergency from the very beginning.

Emergency and recovery plans are an integral part of the management system that ensures the safety of employees working in the Enel Group and its contracting companies, as well as that of the people living near plants.

Power plants are facilities that, given their nature, are at a greater risk for disasters and emergencies.

In **Italy**, all power-plant Business Units prepare evacuation and emergency plans, in particular for thermoelectric plants at risk for severe accidents (Seveso II), such as those in Pietrafitta, Assemini, and Giugliano.

Of particular note is the civil defense system for hydroelectric plants including tanks, which is regulated by Operations Guide no. 3 of December 12, 2000 (MEMO no. DSTN/2/7019 of March 19, 1996) and "identifies conditions that must be present in the holding plant, a structure including the barricade and tank, in order to activate the civil defense system and related procedures".

Enel Group's power plants located throughout the world have developed different emergency plans, depending on the plant type and the kind of risks, either technical or due to natural causes, to which they are exposed. In **Peru**, for example, plans for medical, fire, or pollution spill emergencies are complemented by other hoc procedures for floods, earthquakes, and tsunamis.

In **Slovakia**, however, the management of nuclear power plant emergencies, including terrorist attacks, is of particular importance. At the Bohunice and Mochovce nuclear power plants, approximately 12 emergency simulations are performed each year and involve contractors as well.

Emergency plans include: a plant description, entities responsible for managing emergencies, a risk evaluation and safety and environmental operations, measures for mitigating the impact of emergencies, evacuation plans, communication methods, information for individuals and authorities, and reporting methods for incidents.

Community Engagement

In an increasingly complex and volatile competitive landscape, characterized by a serious crisis of confidence in markets, Enel believes the creation of value must be based on open and transparent dialogue with the communities in which it operates, in Italy and worldwide. This systematic and broad approach has been a key success factor, contributing to the Company's penetration of new markets, accompanying its international expansion, and facilitating the legitimization of and creation of consent with regard to the company's projects and operations.

In 2009, the External Relations Department, in cooperation with partners throughout Enel's business world, increased its ability to communicate with communities, with the goal of balancing the interests of the Company and those of society in a perspective of sustainable growth.

All the communities and regions in the various countries where the Group operates are highly diverse. Culture, landscape, and language are the features that vary the most from place to place.

Well aware of these differences, which are valuable to Enel as well as to society, the common thread of all the projects described in this Focus is **a respect for diversity and the implementation of projects and initiatives focused on developing the special features of the world in which Enel operates. This value is protected and promoted within a perspective of community engagement.**

Western Europe

In **Italy**, Enel's belief in the importance of contemporary art as a tool for understanding the world in which we live is expressed in the Company's renewed commitment to Enel Contemporanea, the public art project that, now in its third edition, once again focused on the city of Rome. This year's work was created by an American artist, Doug Aitken, and is entitled *Frontier*. It represents the ideal Energy Room with an open-air video installation offering a visionary journey through the world of today. With a crescendo of sounds and images in a minimalist space that integrates perfectly into the unique environment of the island in the Tiber, visitors experience the transformation and tension of glimpsing a new "frontier". Over 2,000 guests were estimated to have attended the opening.

Also in the artistic field, the fourth exhibition of Enel's "Ten Great Exhibitions" series was held at the Galleria Borghese from October to January: "Caravaggio-Bacon", a fresh comparison of two of the most unique and extreme personalities in the history of art. Approximately 30 paintings told the story of the tormented existence of the two "cursed" artists.

This was followed by joint initiatives with the Vittorio Emanuele II monument complex in Rome, the Venice Biennial, and the Piccolo Teatro in Milan involving the organization of important exhibitions and cultural initiatives.

One of Enel's main projects for supporting the arts is cultural exchange between countries as part of the "Italian Art in the World" project. One of the most striking works in the Capodimonte Museum, "Judith Slaying Holofernes" by Artemisia Gentileschi, was displayed during July at the Thyssen-Bornemisza Museum in Madrid.

The promotion of dialogue and discussion, a focus on the most contemporary topics, a commitment to the spread of scientific knowledge, and transparent and informed communication are a few of the constants that distinguish the numerous cultural and

scientific initiatives Enel organizes and participates in. For example, 2009 brought to a close the cycle of meetings entitled, "Due Ore Con" (Two Hours With), in which events focused on current social topics that brought together important figures in economics, journalism, politics, and culture. Along the same lines was the "Cortina in contra" event, a program of meetings on key topics regarding the present day that each year involves institutions and the worlds of business, politics, and journalism in general.

In 2009, Enel also continued its sponsorship of and participation in the "Journalism Festival" in Perugia, the first Italian event dedicated to the world of journalism, organizing workshops in the fields of science and energy, as well as forums, panels and other meetings.

Also in 2009, the Rimini Meeting hosted "Enel Villaggio Ragazzi", a pavilion for promoting scientific culture, and creativity applied to the energy sector and exclusively dedicated to youth and children. Over 2,000 children visited the village and participated in scientific experiments, themed explorations, and games dedicated to discovering the world of energy and learning simple techniques for protecting the environment.

At the "Festivaletteratura" in Mantua, Enel successfully presented "Scintille" again; the series of meetings focused on an open discussion between the public and authors invited to the festival, including 27 speakers, 24 meetings and over 3,000 guests.

Science continues to be at the center of so many of the activities the Company supports. A good example of this is the *Oxygen* project. Continuing in 2009 with 4 issues a year and 7,500 copies an issue, Enel's science magazine has proven to be a valid tool for providing constant information on new topics in the worlds of science and energy. Its clear yet never simplistic style of writing is one of the magazine's strong points, and it has managed to maintain one of its principal objectives over the long term: "science for everyone".

Enel's participation in science festivals, including the "Festival della Scienza" in Genoa and the "Festival dell'Energia" in Lecce, and its support of Umberto Veronesi's fifth "World Conference on the Future of Science" reaffirm Enel's great dedication to research, the spread of scientific culture, and the promotion of social debate on topics including energy, climate change, and sustainable development.

The Company's emphasis on culture is accompanied by its support of music. 2009 also brought numerous joint initiatives with important music institutions, including the Auditorium Parco della Musica, the Accademia Nazionale di Santa Cecilia, the Teatro alla Scala, the Teatro San Carlo in Naples, and the Palalottomatica in Rome, as well as support for music festivals, including the Bologna Festival.

After its partnership with Jovanotti, the Company's "Zero-Emissions" music project continued with Tiziano Ferro. 27 stops for 27 eco-sustainable concerts that, thanks also to a joint initiative with AzzeroCO₂, will result in the planting of 2,621 new trees to compensate for the emissions produced.

At "Correnti Musicali", an enchanting blend of seemingly dissimilar musical genres transformed Enel power stations in Brindisi, Porto Tolle, La Spezia, and Termini Imerese into "music factories". Ten musicians (from Renzo Arbore and the Italian Orchestra to Irene Grandi, the Stadio, and Malika Ayane and Nek), participated in four free concerts for people living near local power plants. Approximately 25,000 attended.

The protagonist of 2009 was "Incredibile Enel", the travelling exhibition on energy that toured eight Italian cities (Mestre, Piacenza, Genoa, Catania, Bari, Rome, Florence, and Naples) and attracted over 5,000 people at each stop. Covering a space of 800 square

meters, it was dedicated to discovering and discussing energy in a new way. Interactive exhibits, games, laboratories, scientific experiments, events, conferences, debates, and even a musical about energy were some of the activities Enel developed to answer questions and satisfy the curiosity of the general public on complex topics, including a return to nuclear energy, abating CO₂ emissions, energy conservation, and new developments in the field of research and technological innovation.

The series of encounters in “Orienta”, initially established as a training and continuing education program for company management, has proven to be an important occasion to reflect on strategic junctions within the international scene that the Company has been facing for years. Since 2009, in view of its important speakers (Chris Anderson, Daniel Kahneman, Kevin Roberts, and Jagdish Bhagwati), the importance of the topics discussed to the present day, and the interest stimulated by the initiative, the meetings were opened to the public with approximately 300 guests at each event. The Company’s educational commitments also include joint initiatives with the Osservatorio dei Giovani Editori and universities such as IULM, Tor Vergata, and LUISS, organizing master’s programs, lessons, research programs, ad hoc events, and recruiting activities.

The Enel Historical Archives, inaugurated in September 2008, have promoted a series of cultural and research initiatives targeted at preserving precious historic documents, facilitating research both via traditional systems and with the help of digital inventory with a prospective vision of energy oriented toward the future.

In just one year, the archives were consulted by 220 researchers, both external and internal to the Company. The new seat in Naples was visited by approximately 150 people during two events organized by Confindustria during the “Settimana della Cultura d’Impresa” (Business Culture Week), opened to 150 students from Naples and 120 senior employees from Enel, enjoyed by 250 participants during the “Maggio dei Monumenti” (May of Monuments) in Naples, and involved in other events organized both by Enel (1,500 visitors viewed an exhibition organized in Presenzano during “Open Power Plants”) and other entities and institutions, such as the Chamber of Commerce, which celebrated its bicentennial in Naples in the presence of the President of the Italian Republic.

Aiming to conserve and consolidate these systematic archives on the history of Italian electricity from the end of the nineteenth century to the present day, the project was recognized as one of 100 examples of Italian excellence during the Third EURISPES Report and received the 2009 Efesto Award for entrepreneurship and creativity “made in Campania”.

In addition to science, music, culture, and education, Enel also touches on the field of sports with important partnerships, such as its sponsorship of the 13th edition of the Swimming Championships in Rome. Besides the various viral marketing projects developed for the occasion, in three outlying districts of Rome – Primavalle, Talenti, and Tor Bella Monaca – the Company set up movable pools where adults and children could swim with the champions of the Enel Dream Team. The idea of associating the Enel brand with values such as healthy competition, loyalty, and respect is the foundation of its renewed partnership with Ducati Corse during the Moto GP. Other important 2009 sponsorships included: the cycling Marathon of the Dolomites, the Italian beach soccer championship promoted by the FIGC-Lega Nazionale Dilettanti, the final phase of the World Baseball Tournament, which included a temporary field set up in Rome aimed at igniting Italy’s

passion for one of the most beloved sports in the USA, and a partnership with the Olympic Stadium in Rome to benefit A.S. Roma and S.S. Lazio, the capital's two soccer teams. Attention to the environment is a reoccurring theme in the Company's initiatives. "Natura & Territorio" is an Enel program developed to enhance and preserve the natural heritage of greenery near plants. Each year, in effect, over 200 "Sentieri Energia e Natura" (Nature and Energy Trails) are enjoyed by over 50,000 people. Moreover, for 5 years Enel, in cooperation with Legambiente, has promoted the "Piccola Grande Italia" (Little Great Italy) event, an initiative that works to develop a culture focused on energy conservation and the use of renewable energy sources within small Italian communities.

In **Spain**, the Company organized an entire week of great films open to the public. From November 24 to 30, the Italian Cinema Festival, of which Enel is the main sponsor, was held in Madrid in the prestigious Círculo de Bellas Artes. Thirty-two films were shown at the Festival, in its second edition this year, which was designed and organized by Cinecittà Luce/Filmitalia in cooperation with the Institute of Italian Culture in Madrid and with support from the Italian Embassy.

In a sort of cultural exchange, as a bridge between Italy and Spain, Endesa and the Italian Embassy, in cooperation with the Real Academia de Bellas Artes de San Fernando, sponsored the exhibition "Carlos III. Tra Napoli e la Spagna" (Carlos III. Between Naples and Spain), inaugurated by King Juan Carlos I and the President of the Italian Republic, Giorgio Napolitano, at the Italian Embassy in Madrid on October 29, 2009. The exhibition used art to trace the political and social life of Charles of Bourbon in Naples, beginning in 1759, and opened the year Spain commemorated the 250th anniversary of his crowning.

A key project organized by Endesa is the Corporate Volunteer Program, which plays an important role in social actions, not only because of its contributions to the development of the communities in which the company works, but also because these experiences enrich the lives of the Endesa employees who participate in them and prompt a positive transformation of the work environment.

In Spain, the platform for solidarity and volunteer work is Endesa Solidarios, which is today in its third edition and has the purpose of increasing awareness and the participation of employees working in Spain in solidarity and volunteer programs for the less fortunate. The company's role is to act as a facilitator of the initiative, while employees lead projects in cooperation with key third sector associations. Its previous editions included 15 projects focused on eradicating child labor, supporting crisis centers for people at risk of social exclusion, helping to educate children in poor families, integrating disabled people, and providing basic infrastructure for communities without resources and medical assistance to pregnant women.

So far the Group has raised over 100,000 euro and has actively involved over 500 employees in Spain in the 15 projects mentioned.

Corporate volunteer projects are also present in Latin America and are described in the following pages.

In **France**, in October 2009, the Company sponsored a project aimed at promoting the spread of Italian theater, including a performance of a traditional "commedia dell'arte". Enel France is also an official sponsor of the ROC rugby team of Flamanville.

Enel Erelis, the renewable energy company of Enel France, opened its wind farm to the public in June 2009. This event, called “Wind Day”, was organized in cooperation with the SER, the renewable energy union.

Eastern Europe

In **Slovakia**, over the course of the last 20 years, the level of public acceptance of nuclear energy has increased considerably thanks to improved education and information programs and extensive cooperation with local communities.

Information centers have proven to be crucial to informing and educating the public on topics related to nuclear energy. Over 90% of visitors are children in primary school. Each year, between 6,000 and 9,000 people visit Slovakian nuclear power plants. The goal is to include interactive exhibitions depicting Enel’s nuclear power operations in current visitor centers. Civic Information Committees (composed of influential institution members) have also been established, whose principal purpose is to act as an additional independent channel of communication between the Company and the public. These committees normally gather 4 times a year and discuss various topics with management staff. They also organize local debates (workshops and TV), meetings with regulatory authorities on nuclear energy, the national nuclear energy fund, etc. Communication between the Company and associations occurs through frequent meetings (general meetings, steering committee meetings) and educational trips to European nuclear plants organized with other associations.

The Company also sponsors: charity/health, culture, education, sports and the environment, helping local organizations in need of external financial assistance.

In **Romania**, all communication initiatives for distribution and business activities have been developed through various projects that support key sectors of the community, including social, educational, and cultural areas. Enel has supported disadvantaged groups, including the sick, the disabled, the homeless, and orphans; developed educational programs on the efficient use of energy in schools; assisted universities in energy research; and worked on cultural initiatives for the historic buildings and monuments of Romania.

These community programs were launched in partnership with national and local institutions and authorities so as to address the most important needs and make the best use of the funds and resources allocated for these projects.

In Bucharest, tickets were sold out for the much-awaited Sting concert – of which Enel was the sole sponsor – which took place on Tuesday, February 10, 2009 at the Sala Palatului, the largest indoor facility in the Romanian capital. Over 5,000 spectators came to see the world-famous English performer.

The audience also included 100 Enel customers who won tickets to the show in a competition sponsored by the Company.

And to make the show even more outstanding, the entire space was illuminated by 5,000 tiny lights distributed by Enel to everyone in the audience before the concert.

In **Bulgaria**, 2009 marked the inauguration of a renovated playground in the city of Galabovo, financed by a donation from Enel Maritza East 3 as part of a framework agreement on corporate social responsibility between Enel Maritza East 3 and the municipality of Galabovo. Two sports facilities, a new soccer field, and a gym were constructed near the city's stadium as part of the same agreement.

Over Christmas, Enel Maritza East 3 donated 4,500 euro to help and educate poor children in Bulgaria. In addition, the company organized puppet shows in 6 local orphanages in the Stara Zagora region.

Enel Maritza East 3 prepared and distributed an informative report to the communities living near the power station, with the goal of providing transparent information on environmental issues, safety, community relations, etc. Over 5,000 families throughout the municipality received copies of the first issue.

Additionally, the renovation and maintenance of the power station resulted in the company accumulating large quantities of wood and Enel Maritza East 3 found a way to recycle it. Over 55,468 kilograms of wood were donated to three villages near the power station for people who can use it for heating during the winter months.

Throughout 2009, Enel Maritza East 3 gave significant donations, in partnership with the Italian embassy, to seven schools in Bulgaria that teach Italian. 25,000 euros were divided among seven schools in Sofia, Plovdiv, Burgas, and Varna. School administrations will use the money to buy educational materials and computers.

During 2009 the company also assisted the Bulgarian Science Academy in publishing a book on energy strategies and development in Bulgaria.

On November 24, 2009 Enel Maritza East 3 sponsored an initiative by BG Radio to plant one hundred trees in Geo Milev Park in Sofia. The company lent support to the radio station following a promise made during the annual Music Awards ceremony in May 2009 to lower emissions during the organization and presentation of the awards. This is the first initiative in Bulgaria connected with a musical event that aimed at lowering environmental emissions. Several company employees helped to plant trees so as to provide an example of more socially responsible behavior toward the environment.

Enel Maritza East 3 also sponsors sports and culture, funding two soccer teams and two cultural festivals.

In **Greece**, in 2009 Enel participated as the main sponsor in a series of cultural events organized by the Italian Embassy in Athens entitled "Italia in Piazza, 2009". The program of events lasted one week and had the goal of introducing the Greek people to Italian culture and emphasizing common cultural foundations in the history of the two countries. The events, free to all, were held at Techno Polis, one of the leading cultural centers in Athens, and drew a large public turnout.

During these events, a series of collection points were organized to receive donations for Abruzzo after the earthquake. The donations were then presented by the mayor of Athens to the mayor of L'Aquila.

Additionally, in an effort to establish better relations with inhabitants and prevent forest fires in the area near Livadia, Enel donated a 40,000-liter water tank, indispensable in the prefecture's area, which is at high risk for fires and includes many school camps, wooded areas near inhabited ones, etc.

Throughout 2009, Enel welcomed numerous schoolchildren to its wind farms and hydroelectric power stations in Thrace, Kozani, and Fthiotida. With the help of Enel employees, the students had the opportunity of discovering the world of renewable energy and how power plants function.

Russia

Enel OGK-5 implements social projects and initiatives in Russia in two ways: through its Solidarity Program and local community projects. Social responsibility is one of the fundamental principles driving Enel OGK-5's operations, and the company is committed to the social sphere of the regions where it operates, cooperating with government bodies, public organizations, and charity funds and participating in projects supporting public health, education, culture, youth sports, and activities for the elderly and war veterans. Enel implements solidarity projects in Moscow, Tver, Sverdlovsk, and the Stavropol region. These activities were managed in 2009 through the creation of Energetic, the corporate charity fund that has enabled the development of regional projects without the help of external organizations.

To achieve more functional and effective projects and in response to the needs and problems of the local population, each Enel OGK-5 power station appointed a volunteer coordinator for its solidarity projects.

2009 solidarity programs focused on supporting educational facilities, children, youth, public health and elderly associations, amateur and mass sports events, and activities aimed at enhancing the local social and ecological environment. Enel OGK-5 also established the Open Plants and Play Energy initiatives, communication projects targeted at local communities. These projects help the company inform local residents about the company's activities, communicate the company's values, and create a more positive attitude toward its actions, while educating people on energy-related topics.

Latin America

Enel Green Power – Latin America is committed to enhancing cooperation and maintaining close relations with stakeholders through CSR initiatives.

By sponsoring Puccini's *Turandot*, which was on tour in Central America, Enel enabled students in rural zones to attend rehearsals of the opera, and a percentage of box office revenues was donated to charity and the Cornea Bank at the National Children's Hospital of Costa Rica.

Numerous activities have been organized through joint initiatives with the Ministry of Education, aimed at creating new opportunities for children and adolescents and improving their quality of life and schools. Enel has also awarded over 200 scholarships for the economically disadvantaged in Latin America.

With the objective of providing better living conditions for rural communities, Enel has sponsored training courses in **Panama** for 170 obstetricians, launched a prevention campaign for uterine and prostate cancer, and financed general maintenance for medical equipment, mobile clinics and ambulance services. It has also made large donations to the "Health Center for Women and Children", which helps over 32 indigenous communities.

The company has developed an education project including school renovation and construction, the provision of school materials, solar energy projects for schools without electricity, and scholarships. In 2009, Enel helped 12 schools near the Fortuna plant by providing school materials and buildings.

Enel also provides technical and financial support for environmental conservation around the Forest Reserve in Fortuna, Panama.

To contribute to the social, environmental, and economic well-being of the surrounding communities and strengthen corporate social responsibility, Enel **Costa Rica** employees have recently formed a Social Management Committee that involves communities and gives them a sense of responsibility. The goal is to launch social responsibility projects in cooperation with these communities, putting them in charge of their own development. Enel Costa Rica – which manages Enel Green Power – shows that sustainability can start from “Enel citizens” themselves. The Social Management Committee is composed of five permanent members, elected by their colleagues and subdivided into two operational subgroups. The first – the Scholarship Committee, which focuses on education – is responsible for awarding various scholarships, organizing conferences with associations, and promoting incentives for the best students. The second is the Municipal Work and Social Action Committee, whose goal is to stimulate and raise social awareness in surrounding communities and among employees. This subgroup coordinates Enel Latin America volunteers in its various initiatives, which have included: helping areas hit by the recent earthquake in Costa Rica, repainting the winning school of “Young Energy 2008”, and organizing and approving donations of materials and labor between communities. Of particular importance to this project is the support of a successful balance between indigenous people and the surrounding environment, with the people participating in the planning, execution, coordination, and control of activities connected with community development.

Also in Costa Rica, Enel sponsored the establishment of the Red Cross at sites near power plants and financed the maintenance of the Colonia Carvajal aqueduct so as to ensure drinking water for the community.

In **Guatemala**, Enel built a fire station in Santa Avelina and donated equipment, uniforms, and a truck to the local police of San Juan Cotzal. It also supported non-profit organizations such as Fundecor in a river conservation program and Fundación Neotrópica with the sponsorship of “Amigos de la Naturaleza”, a conservation program for natural resources in harmony with the economic and social development of local communities.

Enel continues to improve living conditions for indigenous communities in **Chile** and the quality of life for Mapuche families who live near the power station in Pullinque, in the southern part of the country: agricultural support programs, donations for new initiatives, and sponsored projects for raising funds and training artisans. In the North, Enel launched a program for monitoring geysers that aims to establish a system for detecting natural surface variations. Enel also provides support to the development of numerous trails through the geysers and promotes products from the Atacama Plateau on the Fair Trade Market.

Endesa's program "Energía para la educación" in Chile supports schools with few financial resources that are located close to the company's power plants.

Copa Chiletra is an initiative involving Chiletra employees in cooperation with UNICEF, CONACE, and the Fundación Iván Zamorano. 2009 marked the seventh edition of the event, which brought together 6,000 boys and girls to play soccer and volleyball at sports centers that Chiletra illuminated throughout the city.

Since 2006, Endesa's subsidiaries in Chile have been developing Corporate Volunteer Programs. These initiatives, which are channeled through the Enersis Group, are grouped in three programs: "Encumbra tu Idea", an educational program in the form of a competition, which has involved 145 children; "Actividades de Desarrollo", whose volunteers help schools with their structural needs and incorporate specific educational activities (in 2009 it involved 80 volunteers in 5 projects for the Miravalle School); and "Colaborando con Energía", a program organized by an Endesa Chile production subsidiary, which provides support to people who live in unstable and social-risk conditions and focuses in particular on children (in 2009 approximately 190 volunteers participated in the program).

Endesa's plants in **Brazil** focus on projects for developing relations with and supporting communities through programs for children, youth, and education, targeted in particular at people living in highly unstable conditions. Each plant organizes its own projects to adapt to the specific needs of each region.

In Cachoeira, projects are developed to promote music for children and adults and support schools in the area. In Fortaleza, projects focus on youth: professional and IT education, sports programs, the promotion and development of literacy, etc.

There are also three corporate volunteer programs involving employees at generation and distribution subsidiaries: "Programa Compartir", promoted by Ampla, supports families who live in the poorest areas and has assisted over 30,517 people and 15 social institutions, with the participation of over 990 volunteers, through donations and the renovation of power installations; "Programa Coelce Voluntarios" organizes direct campaigns to cover the basic needs of people living in poverty and in 2009 provided assistance to areas hit by strong rains, donating 132 tons of food distributed to 3,300 people; and "Programa Generación Voluntaria" is a project promoted by the Endesa Cachoeira, Endesa Cien, and Endesa Fortaleza power plants, with the goal of supporting children and adolescents.

An Endesa company in **Peru**, Edelnor, provides young entrepreneurs with access to higher education at the Instituto Superior Tecnológico Pachacútec. A total of 110 students are studying there, 31 have graduated, and 37 are working in the electricity sector.

Endesa's corporate volunteer program in Peru contributes to the development of communities with solidarity projects that improve the quality of life of people living in extreme poverty. In 2009, the program in Frijaje, an area hit by an earthquake in 2007, planted trees and donated clothing to 2,500 families.

In **Colombia** in 2009, Condensa, an Endesa subsidiary, began a travelling exhibition entitled "Paseo de la Electricidad", with the objective of teaching the process of transforming electricity, in a playful, educational and interactive manner, to students from 37 schools in the municipality of Cundimarca.

Since 2008, Endesa's companies in Colombia (Condensa and Emesa) have implemented a campaign entitled, "Adopta un Angelito", which offers employees and their families the possibility of giving a Christmas gift to a child or elderly person with scarce resources. In 2009, Colombian companies collaborated with five foundations and helped 237 people living in vulnerable social situations.

A similar initiative exists in **Argentina**: "El Viaje de la Electricidad". For the fourth consecutive year, Edesur held an educational initiative aimed at teaching students from 794 primary schools the fundamentals of electricity: how it works, its journey from energy source to the home, and its safe and efficient use.

For the sixth consecutive year, Edesur continued its collaboration with "Missing Children de Argentina", supporting the search for missing children by providing free space on its bills and spreading the photos of 82 missing children.

Endesa's generation subsidiary in Argentina, Endesa Costanera, launched its Corporate Volunteer Program in 2008 with the goal of providing support to institutions and projects focused on children. This company established the "Red Solidaria de Endesa Costanera", which has cooperated with various institutions that focus on the development of children and their subsequent integration into society. At the same time, Endesa Costanera launched an initiative for recycling paper and plastic that led to the donation of 1,700 kilograms of recycled material to the Gaharran Foundation in 2009.

North America

The geothermal plant "Stillwater and Salt Wells" in Nevada – the first Enel geothermal plant in the United States – was inaugurated in 2009 at a ceremony attended by the governor of Nevada, Jim Gibbons, Senator John Ension, Rebecca Wagner, a member of the State Public Utilities Commission, Francesco Starace, the Head of the Renewable Energy Division, and several prominent local figures.

Enel North America held a celebration at Snyder for local officials and landowners to celebrate the successful operation of the Snyder wind power plant, as well as a series of meetings for sharing information on plant operations with local officials and the residents of Lowell, Massachusetts.

Enel North America was also involved in numerous activities for stakeholders, including the award of the first Smoky Hills Wind Farm scholarships in cooperation with its development partner, Tradewinds, which are available to high school students from the communities surrounding the Smoky Hills Wind Farm. Enel North America also sponsored recycling during the Folk Festival in Lowell, Massachusetts.

COMMUNITY

The strategy of creating value for customers, shareholders, and the countries in which Enel operates and attention for the environment and needs of the communities that inhabit it are the fundamental principles guiding not only the Company's business choices, but also its institutional communication activities. Throughout 2009, Enel supported initiatives where it has had a role for some time with projects and specific activities. Culture, music, science, the environment, school, and sports continued to be the channels chosen for the promotion of dialogue and stakeholder interaction.

The Company reinforced its commitment to the growth and development of the local communities in which it works, bringing to life projects which often involve the direct participation of public and private institutions and associations.

A relationship with local communities, transparency, and a willingness to discuss sensitive topics are some of the distinguishing features of the communication initiatives organized in 2009.

The entire Enel group continued its training commitment in the world of school with the **"Play Energy"** project. Now in its sixth edition, the initiative strengthened its international dimension with the involvement of 10 countries in which Enel operates (Italy, Romania, Bulgaria, Slovakia, Russia, Chile, Costa Rica, Guatemala, and Panama, as well as the USA for the first time in 2009). Over 7,000 schools and 446,000 students participated in the project last year; all of 65,000 youngsters registered on the website and 45,000 visited Enel plants. More than 110,000 students participated in this edition's final contest, presenting their ideas for efficient and original solutions aimed at improving everyday life by protecting the environment.

Endesa also implemented the **"Endesa Educa"** ("Endesa Educates") educational project, which was aimed at stimulating efficient and rational electricity use among students in Spain. The program is adapted to the needs of various Spanish educational levels and teaching centers. In this way, "Endesa Educa" offers basic activities to introduce students to the world of energy and energy consciousness, and some were able to visit Endesa plants. This led to 584 different activities in 2009, with more than 14,000 visitors.

In the countries where it is present, Enel is very concerned about the impact it could have on residents and communities. For this reason, it is also necessary for the communities to be aware of Enel's activities in order to be able to implement constructive exchanges and involvement to manage Enel's impact on local communities. **"Open Plants"**, a program now in its fourth edition, has the goal of increasing integration between production sites and the communities in which they are located through awareness of the Enel's environmental and technological legacy, literally opening the plants to the general public. In 2009, 64 plants in Italy hosted entertainment and training initiatives for local communities: from concerts to sporting events, from painting exhibits to tastings of typical local products. 100,000 people visited the power plants.

“**We are energy**” is a competition which involves Enel employees’ children. The fifth edition of 2009 was dedicated to multiculturalism and 2,000 children and youngsters from 16 countries participated. In 2010, 18 countries will participate and it will be dedicated to the environment and sustainability, with the title “The Planet Calls Us to Action”. In this way, Enel intends to educate the younger generations for discussion on and development of an international community.

Enel furthermore supported the **ATP Tennis** tournament in some stages in countries of Company interest (Chile, Russia, Romania, Slovakia, Monte Carlo, and the United Kingdom), where the main professional association champions challenged each other.

In the last few years, **relations with interest groups** have increased, partly in consequence of the expansion of the Company’s boundary at the international level. (See the related indicator at the end of this chapter.)

Because of this, there was also a tangible increase in topics discussed in the various individual meetings, reserved and public workshops, and seminars.

In Italy, the consumer associations are the interest groups with which the Company met most frequently during 2009, especially regarding the dispute resolution procedure instituted in 2006 for household customers in both the more regulated and the free market, a procedure which was definitively put into effect with the launch of the new regulation on May 26, 2009.

A work group was initiated for this activity, with representatives of the 17 Associations registered in the CNCU (National Council for Consumers and Users, an organization instituted within the Ministry of Economic Development), who signed the **Alternative Dispute Resolution** Protocol with Enel. The group held weekly meetings and a national workshop, in which more than 360 local headquarters representatives of consumer associations participated.

Subsequently, a work group was initiated on this same subject with the national leaders of Confartigianato, CNA, Confcommercio, Confesercenti, Confapi, and Confagricoltura to evaluate and extend out-of-court settlements for small and medium-sized companies.

During 2009, training and refresher courses were also organized at the provincial level on understanding energy bills (electricity and gas, for both the protected categories market and supplies in the free market). More than 300 local consumer association representatives participated.

For more detailed information, see the FOCUS “Customer-tailored Products” in the chapter on product responsibility performance.

SO1

Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting.

Environmental Impact studies and surveys carried out for the integrated environmental authorization issuance are conducted as required by and according to the provisions of the law when new plants and infrastructure are built.

Enel has dedicated units within each organizational Division that are concerned with authorization procedures and environmental impact studies. For the data collection, benchmark setting, and processing necessary to develop such studies, the corporate Regulatory and Environmental Affairs Department’s environmental policy unit uses environmental reporting to collect all of the environmental information from each Group production unit (each technology’s production plants, electric network units, gas network unit, mines, ports, fuel deposits,

green services sales activities, property, car park, etc.), thus managing a Centralized Environmental Database.

Central and local institutions guarantee access to documentation for the interested public and stakeholders. Enel publishes a communication about the availability of evaluations in national and local newspapers, as well as the date until which they can be consulted by the public. After the limit date, the public can request the evaluations directly from Enel.

During the operating phases, the data collection method is shared with local authorities through emissions monitoring systems and air quality monitoring networks. The monitoring networks are often directly operated by specific controlling authorities, the bio-monitoring campaigns are carried out with the participation of local authorities, and other information is continuously recorded.

In any case, all information is always made available or transmitted to local supervisory authorities. **During the operating phase, local authorities are constantly on the alert for potential sources of impact, with particular regard to discharges, emissions, and waste.**

Communities are particularly represented by local governments, spontaneous committees, and environmental associations. In the methods set forth by current laws, during the authorization procedure, these parties (who are the reference people for environmental issues which regard the community) can make observations on the environmental impact studies presented.

The programs regard 100% of operations in all cases.

In order to assess the effectiveness of the activity proposed, environmental impact studies always compare the possible alternatives and identify all the technical stratagems aimed at reducing the foreseeable impacts. At the end of the works authorization procedure, agreements are made with the local authorities and communities regarding technical measures to improve the existing environment, which can act as compensation for any residual impacts if it is not technically possible to further mitigate the latter. If the environmental damage is not assessable in monetary terms, the compensations can be carried out through environmental projects aimed at installing, recovering, and renewing natural elements, as environmental benefits that are equivalent to residual impacts that can no longer be mitigated. In this regard, the situation is very different according to the activities considered (thermo-electric, hydroelectric, geothermal and wind production, electricity distribution, gas distribution, etc.) and according to the countries.

In our locations, the majority of the local population favors the permanency of plants (even though there is strong opposition by environmental groups and local committees related to some production technologies). Often Enel is urged by such communities to continue investing in the sites where operations it is closing down are located instead of abandoning them.

In **Italy**, the new Italy Nuclear Program highlights a situation of different political and institutional positions as well as concern – especially at the national level – for environmental effects (release of radioactive substances during the operating phase) or for the risk of accidents. These apprehensions lead to a widespread NIMBY effect.

During 2009, a phase was initiated for **monitoring public opinion to identify different stakeholder positions and provide correct and transparent information about the nuclear program**, partly to meet concerns and wariness about nuclear power.

Afterwards came the study and analysis phase, in close cooperation between the Public Relations and Engineering and Innovation areas on the social, economic, and environmental implications of the nuclear project at the local and national level. The impact of nuclear energy on health and the environment was evaluated in this context, as well as economic and strategic aspects of nuclear energy development for the national economic system, primarily a question of greater energy independence. Workshops and roundtables were organized with companies and research organizations (Confindustria, Enea) on re-launching nuclear energy in Italy.

With the construction and commissioning of the new clean-coal plant in Torrevaldaliga, near Civitavecchia, all of the reporting and communication initiatives aimed at the institutional and local interest groups were promoted and coordinated after the Torrevaldaliga Nord site opened. Furthermore, for the operating phase, all activities necessary to implement agreements entered into with the region and single municipalities were managed with the communities and local governments through meetings and technical roundtables with representatives from the towns and the organizations involved. Activity in preparation for implementing the Agriculture Monitoring Plan was also conducted together with the Università Agraria di Tarquinia, as well as with agricultural cooperatives and associations.

Local businesses and post-project solutions received particular attention. To this end, meetings with town representatives were organized by the work group to demonstrate and discuss prospects for specializing and refocusing workers for other work environments. Intense cooperation was developed with the Port Authority of Civitavecchia aimed at creating an ecological reference point with economic and social benefits that reflect development not only for the worksite, but for the entire area.

In the area of Porto Tolle, activity has been especially focused on the authorization procedure, which has now reached the final phase, and relations with local communities. Meetings with the different interest groups (small and medium-sized businesses, representatives from the world of fishing and agriculture, etc.) and institutions were organized in order to favor and maintain consent and reach agreements about economic and social benefits for the community. Meetings and debates were specifically organized with small and medium-sized companies. The process of defining a preliminary agreement with the region, province, and municipality was initiated, which anticipates various initiatives regarding health and environmental protection and includes instituting a work group for the fishing sector aimed at defending sector requirements.

In **France**, studies carried out to gain construction authorization include evaluating the impact on local communities and could include actions to begin during activities. The programs anticipate that the required data be collected directly by Enel and particularly regard measures on noise, mapping, photographic simulation models, and habitat and fauna studies. The implemented programs have been efficient. The restoration of old windmills that had deteriorated was one commitment made for communities.

In **Slovakia**, Slovenské elektrárne cooperates with bordering communities to define programs to manage waste, carry out environmental impact studies for new projects, publish relevant environmental information (emissions, waters, waste, etc.), distribute periodic reports on nuclear activities through the nuclear plant research institute, and give information upon request to those interested (communities, authorities, and other stakeholders).

In **Romania**, the External Relations Department, with the support of all involved business units, is continuously developing initiatives in order to strengthen and improve relations with local stakeholders and promote activities for improving Enel Romania's electric infrastructures in the areas of energy distribution and supply, as well as projects for future generations.

Among the projects which concern the generation of electricity that Enel is working on in Romania, the most important are the clean- coal plant in Galati and the wind farms being built in Dobrogea. Enel, together with the Romanian government and five other investors, also has a minority investment in a project to build an additional unit for the Cernavoda nuclear plant. Enel acts in accordance with its commitment to be a good local citizen for all of these construction projects: that is, it has a continuous and mutually advantageous relationship with local residents, organizations, and authorities, and also protects the environment. Through the External Relations unit, Enel has always been in continuous contact with local stakeholders (authorities, institutions, non-profit organizations) to inform them and also listen to the claims that they may make about project implications. In the future, Enel wants to continue the efforts already made with local stakeholders, completely and transparently informing them about projects and investments in order to maximize their value to the benefit of customers and the entire community.

In 2009, Enel celebrated the completion of a rehabilitation and modernization project in **Bulgaria** for the Maritza East 3 thermal power station, which began in 2003. Since February 2009, the plant has been the first and only one in all of Southeast Europe that is compliant with European Union environmental standards. The Company consolidated relations with residents and local governments, expanding initiatives aimed at communities and guaranteeing transparency. It informed the public opinion, as well as local governments and other interest groups; and paid attention to strategic values and the economic, social, and environmental benefits of the renovated plant so as to increase awareness of the project's success.

To this end, trips and meetings were organized with various interest groups - representatives of institutions (ministries, agencies, etc.), local governments (municipalities and regional governments), media (local and national), new generations (more than 400 students visited the Mariza East 3 plant), etc. Enel's Mariza East 3 representatives presented the project outcome to the public at different conferences and forums (more than 10), as well as at meetings with various associations (such as CEIBG, AMCHAM, CCIIB, WEC, APEE, the Stara Zagora Chamber of Commerce, the Association of energy sector workers), agencies institutions, and government officials.

Enel's hydroelectric plants in **Mexico** in Chilatán, El Gallo, and Trojes benefit the communities by sending the water used by the plants into canals for local farmers to use for irrigation.

Endesa is aware of the impact that its new projects have on the region and this is why it establishes **dialogue**-based relationships with the communities where it operates.

In **Chile**, Endesa Chile manages stakeholder relations starting from program evaluation and establishes direct dialogue through the CSR manager who visits operating plants in the areas where projects are carried out, in order to be in

direct contact with bordering communities and identify possible impacts and the necessities that these communities could have. Firstly, an exhaustive demographic and socio-cultural study is carried out, which enables the company to understand the local area and the people who live there.

Considering the particularities of each community, direct relations are established with organizations, which allow for identifying demands and points for improvement that these communities need. Concerns and possible negative impacts that could be caused by projects are identified and facilitated lines of communication are established, working together to find compensation mechanisms adapted to the requirements and expectations of communities where projects are in the study phase. Local rootedness is a fundamental aspect for the realization of an electric power generating plant and for its future operation.

Endesa Chile also runs a project together with the Fundación Pehuén in Alto Bio Bio, aimed at improving the population's quality of life, directly and indirectly influenced by the construction of the Pangue and Ralco plants. The foundation has over 600 beneficiary households. In this case, there is concrete evidence of the positive impacts in terms of maintaining social peace and the regular operation of hydroelectric plants in the area.

In **Argentina**, under the supervision of various environmental committees on sustainable development and innovation, Endesa manages its relations with the natural habitat and local institutions with a focus on social integration. In this area, various environmental impact studies have been developed, as well as fauna protection projects and plant maintenance plans focused on security for the entire surrounding community. At the Dock Sud plant, there are internal and external plans for every emergency that the plant could cause to third parties or that third parties could provoke. In this way, danger is identified and risk is evaluated.

Endesa Generación Argentina, aware of its important social role for the communities in which it works, adopts all necessary precautions to avoid spoiling the natural environment. Because of this and indications from different sustainable development and innovation environmental committees, Endesa Generación Argentina relates with living forces in local areas to work together for the environmental integration of plants and social integration of people. At the same time, different environmental impact studies are developed with attention to the fish population and plant maintenance, for the entire community's security.

In **Brazil**, the currently operating plants have developed relation projects with local communities, supporting education for children and adolescents, particularly in areas with high social vulnerability. In this context, each plant has its own project that responds to the various needs of each area.

In **Colombia**, projects are implemented with a focus on respect for the environment, particularly on the impact that power plants can have. These initiatives are conducted by the Company's Environmental Department and Operations Department. Methods of compensation are also managed by the Environmental Department.

HYDROAYSÉN

The HydroAysén project is especially significant, because it is linked to the unique Chilean energy situation. Chile currently depends on raw material imports for 70% of its petroleum, gas, and coal consumption. This procurement insecurity puts the country in a vulnerable situation, with price volatility in the international markets, fossil fuels, and other supply problems that have recently emerged.

For this reason, Endesa Chile, through the HydroAysén company, of which it owns 51% of the share capital, provided for the construction of five power plants through rational and sustainable exploitation of part of the hydroelectric potential of the Baker and Pascua Rivers. The project will reach a total of 2,750 MW, which makes up 13.5% of the country's 20,323 MW hydroelectric potential. In this way, energy can be generated for the SIC (Central Interconnected System), in which most of the country's industrial, entrepreneurial, and other projects are concentrated. This means energy for more than 90% of Chile's population.

The HydroAysén project implementation also prevents Chile from exponentially increasing CO₂ emissions into the atmosphere, replacing the 16 million tons of CO₂ emitted every year with clean energy. It is also important to highlight the support that hydro gives to mitigating the effects of climate change.

The HydroAysén project will be completed with the highest technical standards. Being one of the most efficient hydroelectric generation projects in the world, it is guaranteed that the plants will be built and begin operations in the most socially and environmentally sustainable way. Indeed, it will produce a large quantity of energy in a small reservoir surface, equivalent to 0.05% of the Aysén region.

During 2009, the Company became affiliated with the International Hydroelectric Association (IHA), an organization connected with UNESCO, as Corporate One. This means becoming a world-recognized benchmark regarding sustainability for activities carried out in developing the "Proyecto Hydroeléctrico del Aysén" (PHA) initiatives. The environmental procedure was realized transparently and clearly, since HydroAysén recognizes that citizens and communities near Aysén need the information to be available in order to form their own opinion on the project's impacts and benefits.

At the same time, the HydroAysén project does not aim to contribute only to Chile's development, but also to that of the Aysén region and its residents, giving priority to direct contact with local communities and their representatives by implementing the Company corporate social responsibility plan. Actions to benefit the community were implemented through this plan in the areas of education, social integration, and productive development.

To develop human capital, more than 400 training courses were implemented for various professional roles, to enhance the abilities of people in the development sectors in the Aysén region, as well as for future job opportunities offered by the HydroAysén project.

At the same time, HydroAysén planned technical consulting projects to request a subsidy aimed at improving and expanding government housing projects for more than 200 families, as well as consulting to present community green area development projects.

As regards social integration, HydroAysén supported regional cultural activities by publishing books that revive the traditions of Patagonia and the history of the pioneers, supporting traditional festivals and permanently cooperating with social organizations and women's unions, etc.

In addition, the company announced a project to produce low-cost energy by bringing more than 26 additional MW of installed capacity at the regional level through mini-hydroelectric plants. In December 2009, the company's shareholders, that is, Endesa Chile and Colbún, prepared for the creation of a specific branch to develop these initiatives.

EU22

Number of people economically or physically displaced and compensation, broken down by type of project.

In 2009, no displacements occurred for Enel. The only Endesa project that caused the relocation of people was the construction of the Bocamina II thermal power station, located in the town of Coronel, **Chile**. Works for compaction of the plant's platform caused cracks in the masonry of some houses, which led to the relocation of some residents. In most cases, the residents near the plant requested the move and voluntarily relocated. Studies were carried out to analyze alternatives to relocation, but the people's requests were respected. This happened through **consultations carried out through work groups** and mass meetings, with the participation of the residents and local Coronel town institutions and Concepción government institutions. The decision was made through the mediation of representatives. In the first phase, about 103 households were relocated, and the second phase will move 228 before the second half of 2010.

Through a work group set up specifically to plan all necessary activities for the Bocamina II project, Endesa Chile made use of professionals with proven experience and specializations to evaluate all problems, so that the relocated people could achieve equal conditions or better standards of life in their new homes.

CORRUPTION

SO2

Percentage and total number of business units analyzed for risks connected with corruption.

In compliance with the tenth principle of the Global Compact, according to which "companies are committed to oppose corruption in all forms, including extortion and bribes", Enel intends to pursue its commitment to the fight against corruption.

On June 15, 2006, Enel SpA's Board of Directors resolved to adopt the "**Zero Tolerance of Corruption Plan**" (the so-called "ZTC Plan"), confirming the Group's commitment, already described in the Code of Ethics and the compliance program pursuant to Legislative Decree 231/01, to fulfill the conditions of integrity and transparency in conducting company affairs and activities in order to defend its position and image, the expectations of the shareholders and all other Group stakeholders, and the work of its employees.

Specifically, all organizational structures, within their sphere of responsibility, are responsible for preparing adequate control and monitoring systems to allow for an effective risk management process.

Furthermore, corruption risk analysis and supervision are part of the more general Group risk assessment process, which is periodically carried out by the Audit Department. Following the recent integration process, information about Endesa will be available starting in 2010.

SO3

Percentage of employees trained in the organization's anti-corruption policies and procedures.

As of the end of 2009, 23,960 people in Italy had received distance training on the Company's anti-corruption policies and procedures (76.8% of the executives and 42.6% of other employees). In calculating this index, we took into consideration training for Enel personnel in Italy carried out during the last few years regarding the Code of Ethics, Corporate Social Responsibility, and the compliance program pursuant to Legislative Decree 231/2001. **The online course on the Code of Ethics**, which has been translated into 5 languages, has been assigned to foreign personnel since the end of 2006. **The Zero Tolerance of Corruption Plan, which came into force in 2006, is in the process of being applied in all the Enel companies abroad.**

With regard to competition and the related unfair practices to avoid, a specific distance training course has been made available to all Enel employees. Using practical cases as examples, the course explains the rules of behavior that must be followed in relations with competitors, customers, and suppliers, and also provides for multiple-choice questions to test what has been learned.

As far as specific 231/2001 compliance program classroom training is concerned, in 2009, 45 employees received training as part of the "Processes" unit of the mini-master's course on Procurement.

As a continuation of what has been done starting in 2008, information regarding the Code of Ethics, corporate social responsibility, the 231/01 compliance program, and the Zero Tolerance of Corruption Plan was systematically distributed in corporate training programs. Furthermore, distance training courses on these topics are preparatory for access to corporate training.

As regards Endesa, following specific investigations on anti-corruption policies and procedures, it was found that employee training on these topics should be reinforced.

SO4

Actions undertaken in response to incidents of corruption.

During the period concerned (2009), 12 cases of corruption in the Group were ascertained, and disciplinary actions were taken against the staff or suppliers. With regard to these incidents, Enel imposed the penalties provided for by the **Company's disciplinary code** on the personnel involved and suspended the counterparty's supplier qualification.

In 2005, Endesa created for all its stakeholders a channel through which they can report violations of the codes of conduct established by the Company. Managed by third parties in order to ensure discretion and anonymity for those reporting incidents, the online channel includes a toll-free number stakeholders can call. Furthermore, the channel is available in all the languages of the countries in which the Company has operations. With regard to disciplinary actions, the Company uses fraud indicators and implements continual follow-ups and reporting in accordance with the code. Furthermore, all the reports sent via the ethical channel are investigated by the Auditing Committee. In order to ensure that the complaints received via the ethical channel are appropriately examined, Endesa has a Corporate Auditing Department, which reports to the Board of Directors through said Auditing Committee, which centralizes and channels the complaints. The complaints made through other channels are also sent to the corporate Auditing Department in accordance with Endesa's internal procedures.

POLITICAL CONTRIBUTIONS

S05

Positions on public policy, participation in the development of public policies, and lobbying.

Article 3.27 of Enel's Code of Ethics explains that, regarding corporate relations: "all relations with state or international institutions shall be exclusively traceable to communications aimed at evaluating implications of legislative and administrative activity as regards Enel, to respond to informal requests and inspection audits (interrogations, interpellations, etc.), or in any case to note the position on significant Enel topics".

During 2009, the Institutional Affairs Department's activity was focused on preparing and presenting amendments and Position Papers on various proposed Italian laws such as, for example, the anti-crisis Decree Law, European Union obligations, and the "term extension" Law Decree.

Work carried out with the Italian government was especially important in that it led to the approval of the "development law", which contains numerous provisions that are important for the electric sector, including provisions for Italy to return to nuclear power and the reorganization of geothermal matters, culminating at the end of the year with the Council of Ministers' preliminary approval of the related implementing Legislative Decrees.

Also in 2009, Enel chaired the **"Human Resources and Social Affairs" Working Group** of Eurelectric, the association of European electric companies. The latter is officially recognized and legitimized by the European Commission as a facilitator in the industry social dialogue with EPSU and EMCEF, European Union federations in which the Italian union federations FILCEM, FLAEI, and UILCEM participate.

In 2009, the industry social dialogue was organized in 4 meetings, which led, among other things, to signing a common position on corporate social responsibility issues (June 2009) and the launch of a project financed by the European Commission regarding "Climate Change, Employment Impact and Just Employment Transition Principles for the European Electricity Sector", a project that will develop throughout 2010. The project aims to analyze current capabilities and those that will be necessary in the medium term to support the transition to a green economy and, at the same time, identify best human resources management practices.

During 2009, at the European level, the European Institutional Affairs Office conducted continuous legislative and political analysis and monitoring activity for a series of European legislative acts that have significant impact on domestic legislation regarding the energy and environmental sectors. Specifically, we highlight the Third Liberalization Package regarding the electricity and gas markets and the Climate-and-Energy Package approved by the European Union in the first part of 2009, which once implemented on a national level, will shape the energy legal framework for the coming years. Extraordinarily important in particular was the Climate-and-Energy Package, which included directives on Renewable Energy, the Emission Trading Scheme (ETS), and Carbon Capture and Storage (CCS).

As regards CCS technology, the business intelligence carried out on the dossier for European financing of demonstration projects (Recovery Plan and ETS NER 300) is notable.

Enel's representatives in Brussels, moreover, concentrated on examining the preliminary version of the IPPC directive revision (emissions limits for large industrial plants) and the proposed European directive on nuclear security.

S06

Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.

Article 3.26 of Enel's revised Code of Ethics sets forth that:

"Neither in Italy nor abroad shall Enel finance parties, their representatives, or their candidates, nor shall it sponsor conferences or festivals whose exclusive purpose is political propaganda. It shall refrain from exercising any pressure, direct or indirect, on political representatives (for example, by making Enel facilities available, accepting recommendations for hires, or awarding consultancy contracts).

Enel shall not make contributions to organizations with which there could be a conflict of interest (for example, labor unions, or environmental or consumer associations). However, Enel may cooperate, even financially, with such organizations on specific projects according to the following criteria:

- > purposes in line with Enel's mission;
- > clear and documented allocation of the resources;
- > express authorization by the departments of Enel SpA that are in charge of managing such relations".

Contributions to political parties are explicitly regulated by item 2.2 of the Zero Tolerance of Corruption Plan: "Enel shall refrain from exercising any kind of illegal pressure, direct or indirect, on political representatives; shall not finance parties, or their representatives or candidates, either in Italy or abroad; and shall not sponsor events whose exclusive purpose is political propaganda".

UNFAIR COMPETITION

S07

Total number of legal proceedings regarding unfair competition, anti-trust, and monopolistic practices and related rulings.

See the next comment.

COMPLIANCE

S08

Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws or regulations.

As a basic principle of Enel practices, article 3.30 of the Code of Ethics states that "Enel fully and scrupulously complies with anti-trust rules and market regulatory authorities. Enel SpA's subsidiary companies are required to inform the Enel SpA Institutional Affairs Department about all initiatives they undertake that involve antitrust regulations.

Enel SpA's Institutional Affairs office gives guidelines regarding competition policies to all companies and provides necessary management support.

Enel does not deny, conceal, manipulate, or delay any information requested by the anti-trust authority and other regulatory organizations in their inspection functions, and it actively collaborates in preliminary investigation procedures. To guarantee maximum transparency, Enel is committed to not entering into situations of conflict of interests with employees of any Authority and their relatives".

In 2009, the Antitrust and EU Regulations Unit pursued the **anti-trust and commercial compliance project** begun in 2008 to make all those who act in the name and on behalf of Enel aware of the importance of observing the antitrust regulations, particularly in light of the new consumer protection regulations introduced by legislative decrees no. 145 and no. 146 of 2007.

The program entailed the revision of all the corporate processes and the relevant documents, with particular regard to the actions of employees who are in direct contact with end customers.

The antitrust compliance project was also extended to Group companies with operations abroad. In Romania, anti-trust compliance activity began in 2008 and continued in 2009.

Furthermore, with the aim of spreading the culture of competition within the Group and educating employees about the protection of final consumers, the Antitrust and EU Regulations unit prepared the new Antitrust Compliance Manual, in its Italian and international versions.

State of the proceedings against Enel initiated by the Antitrust Authority

Proceeding for abuse of dominant position

A/410

On October 2, 2008, the Antitrust Authority initiated a proceeding for dominant position abuse against Enel Distribuzione, Enel Servizio Elettrico, and Enel SpA. The Authority charged the two Group companies with having obstructed the entry of a competitor (Exergia) in this market. According to Exergia, the information provided by the Enel companies was wrong, incomplete, and, in several cases, tardy, and such omissions hindered its operations in the market, causing it to suffer significant financial losses. Enel Distribuzione, Enel Servizio Elettrico, and Enel SpA have presented pledges in order to close the proceeding early, without verification of the infraction. On December 10, 2009, the Authority closed the proceeding without ascertaining the infraction and made the commitments obligatory.

IP/49

On December 23, 2008, the AGCM initiated a proceeding against Enel Energia for noncompliance with order PS/91. The Authority charged the Company with having repeated conduct that had previously been sanctioned after proceeding PS/91 (unrequested activation of supplies of electricity and natural gas). On May 14, 2009, the AGCM terminated the proceeding by fining Enel Energia 50,000 euro. Enel Energia appealed the final order to the administrative court.

PS/3224

On August 27, 2009, the AGCM started a formal preliminary investigation for unfair business practices against Enel Energia. The Authority charged the Company with failure to award bonuses and prizes in its "Enelpremia" loyalty program. On December 22, 2009, the Authority terminated the proceeding by imposing a 50,000-euro fine on Enel Energia. The Company intends to appeal the final order to the administrative court.

Italian Electricity and Gas Authority (AEEG) investigations concluding with sanctions

With its resolution VIS no. 12/08, the AEEG initiated a formal investigation regarding Enel Distribuzione for having delayed in delivering power generation plant network connection service, verified during an investigation concluding with resolution VIS no. 8/08.

With its resolution VIS no. 140/09, the AEEG, following a positive evaluation of the initiatives undertaken by Enel Distribuzione and the organizational efforts to improve power plant connection management, imposed a fine of about 1 million euro.

With its resolution VIS no. 237/06, the AEEG initiated a formal investigation (then renewed with resolution no. 314/07) of Enel Distribuzione for having failed to fulfill its obligation to attempt at least once a year to read the meters of customers with up to 30 kW of committed power, as provided for by resolution no. 200/99.

With its resolution VIS 22/09, the AEEG imposed an administrative fine of about 2 million euro.

As far as Endesa is concerned, the following antitrust proceedings, suits, and arbitrations are in progress.

- > On May 8, 2008, the court issued its ruling in Endesa's appeal against the decision of the Audiencia Nacional voiding the ordinance of October 29, 2002 governing transition costs to competition for 2001. The court ruled against Endesa, upholding the decision of the Audiencia Nacional. It is estimated that the decision should not have a significant economic impact for Endesa.
- > The National Energy Commission has initiated an infraction proceeding against Endesa Generación for alleged anticompetitive practices regarding the rules governing the electricity generation market, as the company had ceased generation between November 12 and 17, 2008 in the Foix plant. The imposed fine of 300,000 euro was appealed in administrative proceedings with a request for payment suspension.
- > With a decision on April 2, 2009, the Comisión Nacional de Competencia (CNC - Antitrust Authority) imposed a sanction of 15.3 million euro on Endesa

Distribucion Eléctrica SL for the breach of art. 6 of the Ley de Defensa de la Competencia and of art. 82 TUE. This breach consisted in the abuse of dominant position originating from having obstructed the access of the energy vendor Centrica Energia SL into "SIPS" (Sistema de Informacion de Puntos de Suministro, instituted with Royal Decree no. 1535/2002) and from having transferred customer sales information to the energy sales company belonging to its own Group. On May 18, 2009, Endesa presented an administrative appeal before the Audiencia Nacional. On May 27, 2009, the latter provisionally suspended the sanction;

- > The Spanish Antitrust Authority, CNC, issued four decisions that sanctioned Endesa, Iberdrola, Unión Fenosa and Viesgo for abuse of dominant position in the market of electricity distribution, aimed at obstructing the free market acquisition of the British company Centrica, through access to important information related to its own customers. In establishing the sanction amounts, the CNC considered that the Endesa, Iberdrola and Unión Fenosa distribution companies also engaged in discriminatory conduct impeding Centrica access to information which, instead, had been transmitted to the vertically integrated sales companies. Of the total 35.8 million euro sanction imposed, Endesa 's share was 15.3 million euro. Endesa presented an appeal against the decision to the CNC.
- > On June 24, 2009, the Spanish Antitrust Authority initiated a proceeding against several distribution companies (Endesa, Iberdrola, Hidrocantábrico, Unión Fenosa, and E.On) for a possible breach of art. 1 of Law no. 15/2007 (Competition Law), regarding a collusive agreement which, according to the Authority, was allegedly planned to impede, restrict, or misrepresent competition in the internal market for electricity supply, delaying the process for changing supplier. It is currently not possible to estimate the amount of possible sanctions.



The Numbers

ASSOCIATIONS, INSTITUTIONS, AND THE MEDIA

KPI	UM	2009	2008	2007	2009-2008	2009-2008	%	Boundary
Extent of relations								
Meetings with associations ⁽¹⁾	(n.)	900	800	750	100	12.5		Enel excluding Endesa
Issues discussed with associations	(n.)	85	50	50	35	70.0		Enel excluding Endesa

(1) Estimated value.

COMPANY IMAGE

KPI	UM	2009	2008	2007	2009-2008	2009-2008	%	Boundary
COMPANY IMAGE								
Presence index	(n.)	3,258	3,472	3,378	-214	-6.2		Enel
Global Visibility index	(,000)	1,120	1,269	1,424	-149	-11.7		Enel
Qualitative Visibility index (from -1 to +1)	(index)	0.89	0.91	0.94	-0.02	-2.2		Enel



PR - Product Responsibility Performance Indicators

Disclosure on Management Approach

Enel for its customers

The energy market is under increasing strain.

On the one hand, consumers are more and more concerned about the big issues raised by energy: supply, cost, consumption containment, new sources, and environmental impact. On the other, market liberalization stimulates consumers, creating new choices and demands.

For Enel, understanding these needs is essential for the creation of an increasingly customer-based corporate culture and the improvement of their satisfaction. For this reason, the Company launched [“A Customer for a Friend”](#), an innovative project that throughout 2009 allowed over 3,000 electricity and gas customers to have at their disposal a totally dedicated corporate consultant and even to be involved in establishing the instruments that they themselves will use in the future.

Another project regarding the excellence of service quality implemented in 2009 was [“CRMotto”](#), which the Sales Division designed to simplify the operating processes of electricity and gas and speed up the service by integrating front-office systems with those of metering, billing, and credit.

The year-long trial period constituted a veritable test bench to check the functioning of the IT solution and the connection among the various areas of Enel Energia, such as Marketing, Sales, and Customer Service. Then, on August 31 - about a year after the trial period had begun - CRMotto was launched. The approximately 5,000 employees engaged in managing free-market customers received 100,000 hours of training, beginning in June, to enable each of them, using the new CRM, to make his or her contribution to improving the quality of customer service.

With [32 million electronic remote-managed and remote-read meters installed in Italy, Enel is unique in the world and a benchmark for the European Union](#). And 13 million more will be installed in Spain by the end by 2015. The electronic meter is a device that will turn the current networks into those of the future, [smart grids](#), but it is also a cultural instrument, because it makes customers aware of their energy consumption and motivates them to use it more and more intelligently.

Through the large research project on smart grids financed by the European Union and coordinated by Enel Distribuzione, the 25 ADDRESS participants – companies, research centers, and universities in 11 countries – sketched out the new network architecture to work on. This architecture was officially presented, together with the first results of the work groups, during the second general

assembly of ADDRESS at the Enel Auditorium in Rome at the end of May 2009. By 2012, Enel intends to create a network system that allows an smart use of energy by developing not only technical solutions, but also functional and behavioral models that can break down social, economic, and cultural barriers and develop in customers the awareness of their consumption profile and provide an incentive for them to actively participate in the demand for energy.

Optimization of service quality is also the goal of the Work Force Management (WFM) project. This is part of a set of projects and actions aimed at improving the efficiency and effectiveness of the processes of Enel Distribuzione and through which a series of new technologies have been introduced that engage employees working locally throughout Italy.

The functions currently available have been implemented and integrated with the WFM program, which started up in 2007 and through which a number of technological instruments have been put at the operating personnel's disposal. Among these are surfing on commercial cartography and surfing on Enel-owned cartography, together with applications for network Inspection and maintenance and management of remote-management and remote-control equipment.

The capital expenditure planned during the time frame of the Development Plan regards the extension of the equipment concerning the WFM project, such as pc tablets to support the technical activities carried out on the network and fitting out vehicles with WFM equipment and mobile laboratories for identifying malfunctions, as well as application software to improve the overall functioning of the WFM technological infrastructure.

Thus the WFM system aims to improve service quality, the quality of the safety management systems, and the quality of the processes, activities, and operating efficiency of the personnel involved.

In Spain, 2009 saw the creation of the Málaga Smartcity project, which aims to concentrate a wide range of sustainable technologies in the city. This is a new model conceived to increase energy efficiency, reduce CO₂ emissions, and enhance the role of renewable energy. The project is led by Endesa, which coordinates a group of fifteen companies and research institutes.

Smartcity is meant to integrate renewable energy optimally in the electricity network by installing photovoltaic panels in public buildings, using micro-generation electricity in hotels, and installing small wind turbines in the area. In addition, other systems will be used to store in batteries energy for air-conditioning buildings, street lighting, and urban mobility. To improve such mobility, the use of electric cars will be increased by installing re-charging stations and introducing an experimental fleet of vehicles.

In general, the project will try to involve end users in all stages of the process. All customers will have the new electronic meters, which enable them to consume electricity in a smarter way. Furthermore, the installation of advanced telecommunications and remote-control systems will enable operations on the distribution network to be performed automatically and in real time, with a consequent improvement in service quality.

The final objective of the project is to achieve a 20% reduction in the consumption of energy and to abate the emission of CO₂ by over 6,000 tons a year. Smartcity Málaga is one of the six major projects of this kind currently in progress in the world, together with Stockholm (Sweden), Malta, Masdar (Dubai), and Boulder and Columbus (USA), and is included in the European Union's 20-20-20 Plan.

EU23

Programs, including those in partnership with government, to improve or maintain access to electricity and customer support services.

In **Italy**, the Infrastructure and Networks Division operates in an industry – electricity distribution – which is regulated by the Electricity and Gas Authority (AEEG). Whoever has the network infrastructure in concession must ensure equal conditions to everyone who requests to access and use it.

The objective is to **support the development of liberalization for the benefit of end customers and healthy competition among the different companies that operate in a free market as producers and vendors of energy.**

In **Spain**, on July 1, 2009 the liberalization of the electricity market was completed and the “Tárfia de Último Recurso” (TUR) went into effect for all contracts with up to 10 kW of power. Furthermore, a social voucher – “Bono Social” – was created for customers as a means of helping people who are less well off. The “Bono Social” implies freezing the price of electricity in effect prior to June 30, 2009. Thus, as time goes by, the change in the price of the TUR will increase the discount that these customers receive with respect to the sum they would pay at current prices. The people entitled to benefit from this instrument are:

- > customers who consume less than 3 kW of power;
- > retired customers;
- > families in which all working-age members are unemployed;
- > large families.

As of the end of 2009, the total number of customers with the “Bono Social” was 1,140,646.

In **Chile**, Endesa tries to ensure the best possible service for the city of Santiago through investment in new plants, maintenance of the existing ones, and optimization of plans and schemes for contingencies. In particular, the company is expanding its electricity infrastructure with the use of simulation models and planning criteria that enable it to identify where investment is needed in the short, medium, and long term in order to satisfy the increasing demand for energy by users all over its concession area. During 2009 the company developed its 2010-2014 capital expenditure plan, which will be implemented year by year to ensure that it is updated according to changes in the demand for energy, events in the country, and regulatory and environmental requirements, all the while taking into account the interests of communities.

In **Peru**, the “Street Lighting for Your Security” program promoted by Edelnor, an Endesa subsidiary, improves lighting in different parts of the areas in concession: in squares and parks, on roads, at bus stops, and on the main streets. In addition, the company electrifies new rural settlements, enhancing development and security for people with scant financial resources and providing them with information on the safe and efficient use of electricity, as well as on programs aimed at improving their health and combating malnutrition. As part of the programs for improving access to electricity for such people, Edelnor executes about 15,000 works a year for definitive or temporary electrification. The cost of such works is covered totally by the company, with the customers paying only for their connection to the network.

At the same time, considering that most of the houses are built with precarious materials, the company constructed a few stable structures for the connections at a lower price than the regulated one. The company also offers customers easy payment terms so they can acquire connections for their houses and the accessory services. It should be noted that most of these areas do not conform to

building regulations, and for this reason Edelnor supports these people vis-à-vis the authorities so they can obtain all the documents necessary to access electricity.

In **Brazil**, the national government's "Light for Everyone" program – which promotes rural electrification to enable people to access the benefits of electricity – is also supported by regional governments. The program is financed as follows:

- > national government: 70%, 15% of which is a grant and the remaining 55% a loan;
- > regional governments: 15%, as a grant;
- > distribution company: 15% to cover the indirect costs (its own labor and transportation).

Implemented by Coelce, an Endesa subsidiary in Brazil, the Ecoelce program enables the poorest people to have access to electricity, and at the same time promotes recycling, thus increasing environmental awareness. (For a more detailed description of the program, see the EN26 indicator on page 154). Given the success of the pilot project and the development of a sound business model, the project was extended and in 2009 benefitted about 189,000 families, collecting more than 7.8 million tons of waste and distributing more than 475,000 dollars.

The program has become an example for organizations all over the world and is currently being extended to other areas in Brazil and other Latin American countries where Endesa operates.

In **Argentina**, a framework agreement was signed by the national government, Buenos Aires province, and the companies with the objective of ensuring the financing of electricity consumption in those parts of the Buenos Aires metropolitan area where there is a social emergency.

In **Romania**, groups of less well-off customers are managed according to the Romanian law on energy, which establishes that such customers may receive funds from the government. In order to identify such groups, various government offices have been contacted.

Enel Energie and Enel Energie Muntenia have already contributed in individual cases and will implement a program offering installment payments, which can be extended over longer periods of time.

ACTIONS AFTER THE EARTHQUAKE IN ABRUZZO

Right after the earthquake in April 2009, Enel Distribuzione started working to supply electricity to disconnected customers. The approximately 15,000 customers who were disconnected at 3:32 a.m. on April 6 had decreased to 4,500 after 5 hours and to 400 after 9 hours. By 4 p.m. all the reconnections had been completed and the company began its ordinary managements of malfunctions on the low-voltage network.

The 277 LV lines located in the areas where buildings collapsed, and thus had been evacuated, were kept disconnected for safety reasons in agreement with the Fire Department (FD) and the Civil Defense Department (CDD). These lines serve about 10,000 customers.

At the request of the FD, the gas supply for several municipalities was immediately interrupted.

About 42,000 customers were affected.

Enel Distribuzione did everything in its power to cope with the emergency, reinforcing and replacing local units with men and equipment from the adjacent areas.

Immediately after the earthquake 118 workers were mobilized, 77 for the electricity network and 41 for the gas network. Thirty generating sets were made available for use in the afternoon of April 6, with 45 more brought in during the following days.

Enel Distribuzione has provided and continues to provide continual support to the operations center of the CDD, which was set up in the Finance Police School in L'Aquila.

On April 7, 8 floodlight towers were made available for emergency lighting in several sensitive areas.

The first actions after the earthquake consisted in supplying electricity, from both the network and generating units, for the 170 evacuee camps set up by the CDD (400 supply points with a total of about 40 MW of electric power). In the first few days 22 units, generating a total of 2.7 MW, were installed in the areas damaged by the earthquake, while 18 mobile substations were used for emergency supply.

Gas was provisionally supplied to the hospital, the Finance Police School, the FD headquarters, a number of evacuee camps, and the Aquila industrial laundry by 7 cylinder trucks, after which plans were made with the CDD and the FD for reactivating the interrupted supply of gas.

The evacuee camps were supplied with electricity until the CDD completed their dismantling in October 2009. In addition to supplying the camps, beginning in June Enel Distribuzione was engaged in connecting the new housing that had been constructed to enable people who had lost their homes to settle in permanent and safe housing before the winter.

The reconstruction plan provides for 4 kinds:

- > C.A.S.E. (Sustainable and Eco-Compatible Earthquake-proof Complexes): in 2009, Enel Distribuzione connected 4,000 supplies for household use and about 300 supplies for other out of 4,500 apartments;
- > M.A.P. (temporary living modules): in 2009, Enel Distribuzione connected 1,000 modules out of 1,800;
- > M.A.P. - Frazioni (temporary living modules in hamlets in the municipality of L'Aquila): in 2009, Enel Distribuzione connected 850 supplies for household use and about 100 supplies for other uses out of 1,100 apartments;
- > M.U.S.P. (temporary school modules): in 2009, Enel Distribuzione carried out preliminary work for connecting 6 MUSP out of 45 buildings.

All the connections were preceded by the moving of LV and MV lines that interfered with construction work on 14 sites. More work was necessary to disconnect or move the supply lines of 5,000 of the 16,500 type-E homes, i.e., ones that were so damaged that the CDD and the FD issued orders for them to be demolished or shored up, followed by radical repairs to restore and reinforce their structural elements.

The earthquake also led to a considerable increase in requests for new connections for individuals who were independently building new houses or business buildings, many of which were moved from their former locations. There were about 500 such requests in 2009.

The earthquake caused damage estimated at 15 million euro on the electricity distribution network and 20 million euro on the gas distribution network. The work right after the earthquake cost about 10 million euro, evenly divided between the electricity and gas networks.

EU24

Practices to address language, cultural, low-literacy, and disability barriers to accessing and safely using electricity and customer support services.

In **Italy**, the Sales Division undertook initiatives to overcome linguistic differences and the problems connected with disability by using bills in German (about 50,000 customers) in the Triveneto regions and **bills in Braille** for blind customers (about 920) for the more protected service.

Furthermore, it is promoting the use of **SMS** managing electricity supply contracts. This instrument can be easily used by all customers with disabilities regarding speech or hearing. In effect, with a simple SMS it is possible to communicate a meter reading, request forms for the direct debit of bills to bank accounts, and obtain copies of bills issued.

Again in **Italy**, the **Infrastructure and Networks Division** implemented an innovative system, the **Remote Management** of electronic electricity meters, which supports a new approach to relations with customers. It is based on smart infrastructure, of which the electronic meter constitutes the front end towards the customer.

The electronic meter is an integrated group incorporating – in addition to its metering functions – a display for accessing information on contracts and consumption, a form that enables customers to communicate with Enel's central systems through the power network, and a device for the remote authorization of connections and disconnections. Thanks to these components, the meter can transmit information on consumption, receive updates on the contractual parameters chosen by customers, and carry out remote-controlled connections and disconnections.

In **Spain**, all the communications, including bills and informative brochures, that Endesa sends its customers are written in both Castilian and Catalan.

The **"Canal Ético"** is available in the five languages of the Countries in which the Company is present and is also accessible by its personnel in Argentina, Brazil, Chile, Colombia, Spain, Portugal, France, Greece, Ireland, Italy, and Peru. When a number of legislative changes of great interest for customers went into effect, such as the switch to monthly billing in the regulated market and the creation of the TUR and the "Bono Social", it became apparent that the public – both customers and others – found it difficult to understand these changes and their impact on their relationship with their energy company. Endesa thus created an Internet portal for the purpose of appropriately informing the public about monthly billing, the TUR, the "Bono Social", contracts, etc. The website also has web 2.0 functions, which allow the use of audiovisual content, such as the video explaining the TUR, enhance the presentation of information, enable customers to participate in surveys, etc. During 2009, different version of the portal were created, which gradually incorporated additional content and functions. Changes in the law also led to requests by consumer associations and public bodies to explain the changes to consumers and the public to defend their interests. Thus a team was created to manage relations with such associations and bodies. The team organized periodically, and participated in, a number of consumer forums, at which it explained the procedures adopted by the company and noted the main concerns of consumers in order to adopt more appropriate measures. At the same time, Endesa carried out actions to inform customers and others about the smart use of energy, provided advice on the protection of household systems, and offered a "Welcome Pack" informing customers about the functions of the power board, as well as offering advice about maintaining and protecting their home and using electrical appliances.

A sticky note on the back of bills is a space for sending messages to customers

with advice on how to conserve energy and protect installed systems.

"Twenergy" is an online instrument which involves consumers in conserving energy and using clean energy, while YouTube is also used to convince consumers to use energy more responsibly.

To promote energy efficiency in **Argentina**, Edesur, an Endesa company:

- > sends its 2 million customers periodical messages inserted in bills with advice on energy conservation and its benefits;
- > offers the more than 500,000 customers who pass through its sales and payment offices every month a series of institutional brochures that inform them about the consumption of the most common electrical appliances and provide information on the efficient use of electricity;
- > carries out a campaign for children attending schools in the area of its concession in order to teach them about the safe, rational, and efficient use of energy. Parents and teachers also participate in this campaign.

In **Chile**, since 2002 bills in Braille have been available upon request by customers at no extra cost. This service is currently used by 242 customers.

Campaigns are carried out in **Peru** to distribute brochures and disseminate web messages on the safe use of electricity and preventive actions against accidents caused by electric installations.

Among the various initiatives, the following should be noted:

- > bills in Braille;
- > a telephone service for listening to customers;
- > the use of television at service centers to inform customers of the services offered.

In **Brazil**, people with special needs have special mechanisms at their disposal in the main channels of communication with the Company. There are signs identifying services in the shops, where there are employees who can communicate in foreign languages or sign language. Bills have been issued in Braille since 2004 for registered customers.

There are also projects that facilitate access to electricity, such as "Low-income Rates", for customers with little purchasing power, and the "**Ecoelce**" and "**Ecoampla**" programs, which reduce the cost of energy, as well as social programs that help create income.

The theme of the safe use of energy was developed in all the channels of internal communication of distribution companies and in the annual advertising plans. A number of channels – such as television, radio, Internet, bills, posters, and brochures – are used to carry out external communication campaigns in order to ensure that the message is understood by everyone.

In **Colombia** Condensa, an Endesa company, is the only energy company in Colombia that has issued bills in Braille since 2004, including them with the traditional bills upon request and at no extra cost.

In **Romania**, Enel Energie and Enel Energie Muntenia do not presently have specific programs regarding multi- or bi-lingual information available in Braille or on an audio support.

The companies have not had to cope with this kind of request so far, but will take all the measures necessary in the future to satisfy particular needs.

CONSUMER HEALTH AND SAFETY

PR1

Life-cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant product and service categories subject to such procedures.

The OHSAS – Occupational Health and Safety Assessment Series – specification establishes the requirements of a health and safety management system and certifies corporate organizational models. In this way it is possible to plan and implement the actions necessary for managing Occupational Health and Safety (OHS) according to the characteristics of different risks.

In Italy, the Generation and Energy Management Division obtained BS-OHSAS 18001 certification in 2008. This represented the conclusion of a three-year development plan and was not only an important goal, but also the starting point of future activities aimed at consolidating and improving the Division's work method.

In 2008 as well, the Engineering and Innovation Division received certification from the CSQ Institute (of the IMQ group) for its safety management system in conformance with the BS-OHSAS 18001:2007 standard for the Plant Development and Construction Business Area. This important achievement rewards months of intense work by the Division's Safety Department and both office and worksite personnel.

The **Infrastructure and Networks Division** manages the electric power distribution networks. The networks are managed in compliance with the building and operating regulations on plant safety, which is ensured in the design, construction, testing, and operation of the plants. The distribution network has a management system certified in conformance with the ISO 14001:2004 standard, the OHSAS 18001:2007 standard for OHS, and the ISO 9001:2000 standard for the maintenance of its HV, MV, and LV systems and remote control.

Furthermore, cooperation among Enel, other line and substation operators, and the ISPRA-ARPA inter-agency system led to the drawing up of national guidelines for governments and private individuals on the application of the Decrees of May 29, 2008 "Approval of the procedures for measuring and assessing magnetic induction" and "Approval of the calculation method for determining safety distances for electric power lines".

In 2009 as well, a number of simulations to assess the magnetic field were carried out with special calculation software during the authorization procedure for new electric lines and substations and at the request of government agencies and private individuals for precise opinions.

With regard to health and safety Issues, the **Sales Division** acts to:

- > achieve continual improvement of its activities, processes, services, and behavioral models regarding the health and safety of its workers;
- > achieve the goals set and develop the awareness of everyone concerned (personnel, customers, suppliers, associations, etc) by providing the relevant information;
- > cooperate with the authorities and qualified bodies in defining and developing provisions regarding worker health and safety;
- > comply with the applicable regulations regarding OHS;
- > propose the reasonable, constant improvement of prevention and protection activities regarding OHS.

The Sales Division has obtained certification for OHS according to the OHSAS 18001:2007 specifications.

In **Romania**, Enel Energie has been certified according to the ISO 9001:2008, ISO 14001:2004, and OHSAS 18001:2008 standards for OHS.

Energie Muntenia has been certified in conformance with the following: ISO 9001:2008, ISO 14001:2004, and OHSAS 18001:2008.

As far as health and safety are concerned, the sales companies have:

- > developed work Instructions and procedures;
- > projects for monitoring OHS among employees, customers, and partners;
- > related activities such as work groups and Safety Week.

As far as the value-added products and the services supplied by Endesa are concerned, in **Spain** an analysis of the possible impacts on the health and safety of consumers is performed, including an approval process according to health and safety criteria for suppliers, too.

Endesa is covered by ISO 14001 certification. Since it produces and distributes energy, it adopts specific measures to ensure the safety of its installations.

For the market, from a commercial point of view, the qualitative assessment of a product begins with establishment of quality checks in the initial stage of installment of the product.

In addition, for transformers not owned by the distribution company, Endesa Energia provides maintenance of transformation centers that ensures compliance with existing regulations and their proper installation.

In **Argentina**, all of Edesur's installations (lines, cables, and transformers) are inspected and tested for compliance with the provisions of the law regarding magnetic fields, radio interference, and acoustic pollution.

In **Brazil**, consumers are constantly informed on the safe and rational use of electricity through the most Important media (radio, newspapers, and television), energy bills, and brochures available at the company's offices.

Injury rates are monitored and the most frequent kinds are analyzed in order to carry out campaigns and produce educational materials for the public.

If an accident involves the public, the analysis is performed by the Work Safety and Maintenance Unit. The causes and non-compliance are then pinpointed and corrective measures are taken.

Electrical installations are always accompanied by the identification of the points that are at risk of breaking. If there is an event of this kind, the system has automatic mechanisms that disconnect energy from the area concerned. Safety indices are monitored In order to improve actions to make the public aware of safety and risk issues.

For example, the "Risk-free Vacation" project, which was implemented in 2009 in the region of Rio de Janeiro and Cearà, highlights mainly the potential risk of playing with kites near electric power lines. Communities participate in educational projects such as "Pathways of Efficiency".

Other actions of prevention regarding the electric power network are also carried out, such as the installation of distancers to prevent extraneous objects from reaching the system.

In addition, the use of a questionnaire regarding the prevention of occupational injuries is essential for both employees and the public at large.

The construction of lines and substations requires different equipment – subject

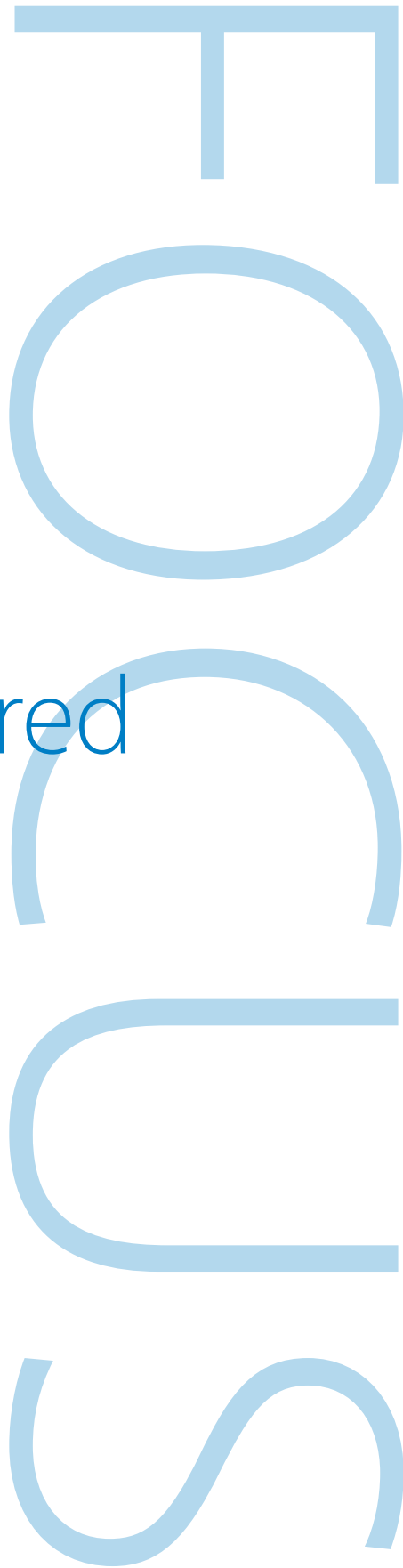
to approval by local bodies – according to the kind of project, the environmental impact assessment, and the assessment of risk for the population.

In the transmission and distribution of energy, activities are accompanied by information and signs in high-voltage areas and by monitoring of the areas. In several substations, the monitoring is performed by video cameras, which facilitates the identification of every possible risk connected with damaged equipment. Furthermore, high-voltage areas are fenced and protected in order to prevent anyone from coming into contact with electricity. Functionaries are continually trained in safety to prevent accidents. In urban areas, equipment is installed on the network to prevent anyone from climbing up to the cables. There are signs and protection devices on low-voltage networks, too.

In **Colombia**, since Condensa is a generation and distribution company that is covered by ISO 14001 and OSHAS 18001 certification, specific measures are continually monitored in order to ensure the safety of the installations.

In **Perù**, Edelnor monitors noise and magnetic fields in its substations and the adjacent areas to assess their impact on the community. At the same time, the quality of the water discharged into the river after filtration is also monitored.

Customer-tailored
Projects



The Remote Management System

By now, the [Remote Management System](#) is a reality in the Italian distribution network. In effect, the installation of smart meters has been completed and the supporting IT infrastructure has gone into operation.

[The 32 million meters are remote-managed with computerized transactions that enable the Company to serve its customers more rapidly and effectively.](#)

Thanks to the Remote Management System, it was possible to also introduce a new rate system characterized by flexibility and thus adaptable to all requirements.

Launched in 2005, **Time-Differentiated Rates** have enabled Italian families, for the first time, to establish a veritable rate plan based on their different consumption habits, with an opportunity to save significantly.

This system is an advantage for the entire electric system, because it improves the efficiency of the services supplied to customers and, through differentiated rates, gives them an incentive to shift their energy consumption to hours when there is less load, while at the same time providing Enel with the instruments for optimizing its own processes.

The remote, rather than on-site, management of the great majority of commercial transactions and the main meter activities also contributes to the reduction of CO₂ emissions.

Thanks to the success of the Remote Management System in Italy, Enel will extend its application to its distribution networks in other countries. In particular, a project is in progress to adapt the system and its equipment to the regulatory obligations of Spain. In 2010 Endesa will begin to install the system in its distribution network, with plans to install 13 million meters by 2015.

These are the numbers and the schedule of [Cervantes](#), the Enel-Endesa project for bringing remote management to Spain.

"Cervantes" was presented officially on July 14, 2009 in Madrid at the headquarters of the Unesa, the association of Spanish electricity companies, during a press conference with the participation of representatives of the national government, local institutions, the media, and other Spanish utilities.

[Endesa will be the first electricity company to install a remote management system in Spain](#) and the entire process will be completed three years early with respect to the provisions of Spanish legislation.

For this solution, Endesa was given the "European Utility Award" in the Business Performance category during the "Metering Europe 2009" event.

Smart Info

The ["Smart Info"](#) project stems from the provisions of the Electricity and Gas Authority's resolution ARG/com 56/09, which applied the provisions of article 17, paragraph 1, letter c) of Legislative Decree n. 115 of May 30, 2008. According to the latter, "electricity companies ... shall find ways for end customers to check in a simple, clear, and understandable way the readings of their meters, both through special displays that are visible and easy to get to and through access to the same data via

other IT or electronic instruments the end customer already has.”

Thus these provisions regard demand-side management and the promotion of efficient energy use.

The project provides for the development of a device that communicates with the electronic meter from household and enables customers to access the information in the meter more easily via a number of visual supports (personal computers, entertainment equipment, electrical appliances, mobile devices, and dedicated displays) or to have a more precise idea of their consumption and how to optimize it by organizing their use of appliances and lighting more efficiently. The device will transmit the information on consumption collected from the meter inside the residential network through a standard and open communication protocol.

Smart Grids

Electricity networks were originally constructed to collect large quantities of energy from power stations and distribute them to a large number of customer-consumers: in short, centralized control, power flows in one direction, and passive networks.

Now the classic idea of the electricity network is on its way to obsolescence. Not only are there more lines, switches, and transformers, but now there are electronics, computers, and communication.

One of the main drivers of this change is the European Union’s “20-20-20” goals, which include, by 2020, a 20% reduction in greenhouse gas emission with respect to the 1990 levels, a 20% increase in energy efficiency, and 20% of total electricity production from renewable sources. These goals are then translated into national goals, which for Italy means producing 17% of its energy from renewable sources by 2020 compared to 5.2% in 2005.

With the spread of distributed generation from renewable sources, even in households, an additional network is coming into being that has to be integrated with the traditional one: thus, no longer centralized, but rather dispersed, control, two-way flows of power, and active networks.

Thus distributors are faced with a transformation necessary for them to be able to manage both the flows of energy produced by large power stations (thermal, hydro, etc.) and those produced by small and medium-sized plants from renewable sources (photovoltaic, wind, etc.). Consequently, it will no longer be sufficient to control national production, but it will be necessary to monitor, manage, and integrate – even at the local – level the distribution of electricity produced in low and medium voltage from renewable sources.

The electricity network is thus no longer only a channel for transmitting and distributing electric power for large power stations to end customers, but a “smart” grid: a common network that can enable producers and consumers interact, determine demand in advance, and flexibly adapt the production and consumption of electricity. This will be a network consisting of many small networks connected with each other and able to communicate and exchange information on energy flows, thus managing demand peaks more efficiently by avoiding supply interruptions and reducing the load if necessary.

There is a similarity with the Internet, where all the users are interconnected and can both send and receive information, thus breaking out of the from-one-to-many distribution scheme.

The smart grid automates recovery processes and informs the electricity distributor if there are malfunctions at any point on the network, thus speeding up the repair work and restoral of supply. Likewise, it allows two-way interaction between the local producers and consumers in a synergetically integrated whole.

Thanks to its implementation of innovative projects such as the Remote Management System, automation, and remote control, Enel Distribuzione is already recognized as a benchmark at the international level in terms of overall performance.

Such projects constitute the essential framework for the development of smart grids. In effect, thanks to the Remote management System, customers can find out minute by minute how much energy they have withdrawn, how much they have produced and injected into the network, the rate currently applied, and to what time of day it is most advantageous to shift their consumption. Furthermore, as the coordinator of European research, development, and demonstration projects on smart grids, Enel Distribuzione consolidating its leadership in this field to ensure the greatest benefits for the Italian electricity system, end customers, and electric power companies. These benefits lead to:

- > the efficiency of the energy system;
- > better management of energy demand and supply;
- > a reduction of energy losses due to theft or technical failures;
- > the possibility of planning consumption at different times of the day;
- > the possibility of activating value-added services;
- > increasing use of electric vehicles with related recharge stations interconnected with the electricity network;
- > increasing involvement of small and medium consumers for electricity production from renewable sources;
- > the reduction of CO₂ emissions.

Essentially, the electricity network of the future must satisfy four fundamental requirements. It must be:

- > **accessible**, ensuring access to the renewable sources of production;
- > **reliable**, ensuring the supply of electricity;
- > **efficient**, in order to be lower-cost and reduce greenhouse-gas emissions; and
- > **flexible**, in order to satisfy the new requirements of consumers, such as to actively participate in the production of electricity and to recharge their electric cars without impediments of time or space.

Thanks to the infrastructure already in place and to the initiatives and projects in progress on smart grids, Enel Distribuzione is proactively working to ensure the utmost overall benefit for all the stakeholders involved.

ADDRESS

ADDRESS is a research project coordinated by Enel Distribuzione and co-financed by the European Union. It aims to develop technical and commercial solutions that enable even small and medium consumers to participate actively in the energy market by offering to modulate their consumption and sell the energy they produce. The ADDRESS consortium consists of 25 partners in 11 European countries: universities, research institutes, and companies engaged in the supply, distribution, and sale of electricity and the production of electrical appliances and equipment for the electric power network. In the ADDRESS vision, consumers participate in the market through an intermediary, the aggregator. This is a new figure in the energy industry, who will have the task of collecting the requests of the market and trying to satisfy them by exploiting and aggregating the potential of his customers in terms of consumption modulation and energy generation.

ADDRESS is working on a device, the Energy Box, which, once installed in the consumer's home, will be able to receive the requests of the aggregator and regulate the use of electrical appliances and generating systems accordingly. This situation should be advantageous for both the aggregator and its customers. At the same time, the participation of consumers in mechanisms for regulating consumption and in distributed generation could make the system more sustainable, efficient, and reliable, thanks to a more intelligent management of the peaks of consumption, which constitute a risk for the system and otherwise would require the construction of costly power stations.

The project is tackling a number of different aspects through dedicated work groups, including:

- > **Network operation:** all the aspects connected with the operation of the network are dealt with by a dedicated work group led by Enel Distribuzione. Together with consumers and the aggregator, the companies that distribute electricity are involved, since they will have to ensure the functioning of the electric network in the new scenario.
- > **Social and economic aspects:** understanding the requirements of consumers and seeking more appropriate, comfortable, and advantageous solutions is crucial for the success of the ADDRESS vision. Therefore, one of the project's work groups is dedicated to investigating these matters. There will be no lack of recommendations from the parties concerned, such as the regulatory bodies of the electricity industry or those who could be aggregators in the future.
- > **Telecommunications:** to investigate and devise a communication architecture that makes possible real-time interaction among customers and the different players in the market, the systems for metering and managing smart electrical appliances, and the household accumulation and generation systems.

A group of experts, consumer representing consumers and other stakeholders assists the ADDRESS consortium in understanding as well as possible the requirements, roles, and responsibilities of the different parties concerned.

In 2011, the prototypes developed will be tested for the first time, followed by real demonstrations, with the participation of consumers, in Spain, Italy, and part of France. The first international workshop, at which the first results will be presented, will take place in 2010.

The ADDRESS website provides up-to-date information on project developments and public events.

Archilede

Street lighting is an ideal starting point for a policy of energy conservation, which, as prescribed by the related EU directives, must aim to limit waste and eliminate products that consume excessively from the market and replace them with more efficient ones. [The Archilede project will allow more than 40% of the energy used in street lighting to be saved with respect to the best traditional technologies](#) (high-pressure sodium-vapor and metal-halogen lights) and up to 60% with respect to less efficient traditional technologies (mercury-vapor lights), with a substantial reduction of energy costs and a light environmental impact.

From this point of view, Enel Sole's pilot project, which will be launched first in Lodi, Alessandria, and Piacenza, with an initial total of about 400 light sources, will lead not only to a sharp reduction in consumption, but also to a significant reduction in the municipalities' energy costs and an annual avoidance of about 11 tons of CO₂.

In practice, light will be concentrated where it is needed, mainly on streets and at intersections. In time, [Enel Sole plans to extend the project to the national level, applying the new system to all of its 2 million light sources](#) – which constitute 22% of the Italian market and are distributed over 4,000 municipalities – by replacing at least 100,000 a year. The company also intends to propose the new system abroad, too, where it is convinced it will find considerable interest, as it has for its innovative electronic meters, which it has already exported to Russia, Spain, the Netherlands, and Australia.

Electric Cars

Enel Distribuzione's Electric Car project is an original undertaking for implementing and managing innovative infrastructure for recharging electric vehicles. It was designed with cutting-edge technology that ensures the required safety standards and an advanced recharging service based on the electronic-meter technology.

Enel's active participation on the International Standardization Committees – which are engaged in standardizing the connector and the communication protocol – makes the Electric Car project even more distinctive, thus contributing to the realization of both a public and a private [recharge network for latest-generation electric vehicles](#) that is also capable of supporting existing vehicles. The objective of this activity is to devise technologies and procedures that enable customers to recharge their electric cars in the same way throughout Europe.

The technologies adopted and the solutions implemented for customer recognition and authorization, as well as for the related debit of the energy consumed also allow customers to enjoy any future dedicated rates that the Authority may assign to the recharging of electric vehicles and to have a single supply contract that includes both public and private recharging.

This project is in line with Enel's general objective to acquire concrete experience in projects on smart grids. In particular, the infrastructure will have to overcome the economic and functional barriers for the large-scale development of electric mobility and enable services and functions consistent with the objectives of the future smart grids, such as load management and storage.

The first important implementation for trying out the innovative functions of the Electric Car project in the field will be an important pilot test in 2010 provided for by the agreement signed by Enel SpA and Daimler, the "E-mobility Italy" project, which will involve the three Italian cities of Rome, Milan, and Pisa (among other things, where the Enel Research Center is located) until 2013. These three cities represent the different life styles and housing models in Italy.

Enel will be responsible for the development, creation, and functioning of public and private infrastructure with over 400 recharging stations and the related central control system, while Daimler will supply more than 100 electric Smarts to private customers and will take care of their maintenance.

The energy provided by Enel SpA for the electric cars will be certified RECS (Renewable Energy Certificate System), an international system that involves 25 European countries, which was instituted to finance the development of renewable energy sources such as water, the sun, wind, and the heat of the earth.

Listening to customers

As far as listening to customers is concerned, the "Close to You" service was introduced on the web channel, through which customers have an additional way of letting the Company know what they think.

Special attention was also given to the aspects of communication by a project that revised the form and content of all the correspondence sent to our customers.

Further initiatives begun in this direction in 2009 will be carried out in 2010. Particular mention should be made of the extension of the network of branches equipped with all the instruments for "customer management", with the aim of making Enel's local presence ever more widespread.

Passion for Quality

In 2009, the Company's organization focused its energy on the dissemination of the culture of quality and through the "Passion for Quality" program acted simultaneously in several spheres: measuring quality, listening to customers, and communication.

The project aims not only to achieve excellence in conducting the classic stages of personal contact and listening to customers, but also includes a specific program for each of the activities carried out by the Sales Division: from commitment to the development of new products to relations with suppliers.

Beginning with the question of measurement, the “[Passion for Quality](#)” project has established a control system that correlates the indexes of Customer Satisfaction, Complaining, Churn Rate, and Net Promoter Score with operating performance indicators which can be acted on to improve them.

This instrument furnishes monthly a precise picture of the extent to which the objectives are achieved by single employee involved and by single goal assigned. Furthermore, it allows reports to be made summarizing the data on progress by goal category, incentive type, and by business and technical area.

The strategic importance of this project is that it enables managers to have the complete and timely information that is necessary for taking action and providing systematic feedback to all of the employees involved. This also facilitates full agreement on corporate objectives, as well as taking responsibility for achieving the assigned targets.

Checking commercial activities

Enel continues to avail itself of a team specialized in checking the consistency of the Company’s commercial activities and operating practices with its corporate procedures, as well as the provisions of the law and the regulatory authorities.

The checks are carried out at the units that manage the contact with customers – both internal (physical locations, contact center) and external (contact center, physical locations, remote sellers, agencies) – and through mystery calls. Their purpose is to monitor the fairness of commercial practices in their entirety.

The same people contribute to ensuring compliance with antitrust regulations by participating in the planning of training and professional refresher courses, as well as seeing to the updating of the behavior codes.

In 2009 more than 15,000 checks were performed.

The information collected was analyzed by contact/sales channel and in greater detail for each of the components of the different channels. The direct observation of the personnel at work highlighted the single non-complying actions, thus allowing the causes to be determined and enabling the Company to target measures to the specific situations.

These checks contributed to finding out about behavior that was previously perceived only indirectly through the reports of customers, making it possible to take swift and effective action.

“If attention rhymes with Alternative Dispute Resolution”

In 2007, when the [equal-terms Alternative Dispute Resolution procedure adopted together with the consumer associations](#) was launched at the national level, the slogan adopted was: “If attention rhymes with Alternative Dispute Resolution”. Three years later, this procedure, which takes place entirely on line, now allows more than 20 million customers to resolve any financial dispute connected with their contract for the supply of electricity or gas quickly, simply, and free of charge. This instrument is available to all household customers of Enel Servizio Elettrico, the

company that supplies electricity in the enhanced-protection service, and Enel Energia, the company that sells electricity and gas in the free market. By the end of 2010, this instrument will be extended to more customers. In effect, Enel has started discussions that will lead to the signing of a protocol of understanding with the six most important national associations representing small and medium-sized businesses – Cna, Confartigianato, Confcommercio, Confapi, Confesercenti, and Confagricoltura – which will allow this procedure to be extended to the entrepreneurial world.

The experience is derived from the telephony industry. More than ten years ago, the consumer associations started to pursue this way as an alternative to that of ordinary justice for solving disputes with the major companies. Seeing that the results were extremely positive, they decided to use it in other markets, too, including the energy market, at a particularly sensitive time: that of the complete and definitive liberalization of the industry.

[Enel is now the only company in Italy and all of Europe to have a Alternative Dispute Resolution procedure fully in place at the national level.](#) Considering the international dimension attained by the Company in the last few years, the model will be exported abroad to repeat the positive experience of joint planning with the Italian consumer associations. Cooperation constitutes a best practice when it comes to the relations between a large company and its stakeholders. The project was born in 2004 and became a concrete reality two years later with the signing of a protocol and rules for its implementation by Enel's Chief Executive Officer, **Fulvio Conti**, and the heads of all the consumers associations of the CNCU (National Council of Consumers and Users, a organization founded in 1998 at the Ministry of Economic Development).

The procedure was tested for about a year in Piemonte and subsequently extended to all of Italy. The extension took place after a series of 28 training courses for the conciliators and local representatives of the consumer associations, which were organized at Enel office in nine cities by Consumers' Forum, with financial support from the Electricity and Gas Authority.

Projects in Romania

During 2009 Enel Energie and Enel Energie Muntenia introduced a number of new services and changes in their billing system to improve the quality level for customers. For example, now all customers can report their meter reading free of charge by dialing a toll-free number, as well as pay their bill in different ways.

All these changes were implemented after consultation with consumer associations and customers received information presenting the new services and explaining how to use them.

EU25

Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements, and pending legal cases of diseases.

Enel is concerned about the safety and health not only of its employees and those of its contractors, but of all the people who live in contact with the Group's operations.

Injuries of third parties are monitored constantly and are used to improve infrastructure safety systems.

In 2009, 35 outsiders were seriously injured and 32 died, almost all of which were due to electric causes (63%) or traffic accidents (36%).

It should be noted that many electric injuries (33%) involve construction work near power lines and all of 26% occur during attempts to steal electricity.

No legal proceedings against third parties were resolved or pending either in Italy or abroad in 2009.

EU26

Percentage of population unserved in licensed distribution or service areas.

In all the countries where Enel is a distributor of energy, the percentage of the population that is not served is 0%.

In **Italy**, the **Infrastructure and Networks Division** operates in an industry – gas and electricity distribution – that is regulated by the Electricity and Gas Authority. Whoever the network infrastructure in concession must ensure equal conditions for accessing and using the same to all parties that so request.

The objective is to support the liberalization for the benefit of end customers and healthy competition among the different companies that operate in the free market, such as the producers and vendors of energy.

Among the most important responsibilities that Endesa assumes in **Spain** is to ensure that electricity is accessible to as many people as possible and at the same time to supply it safely, efficiently, and with quality service.

The distribution network covers the entire country. In the few specifically individual cases in which the service is not provided, this does not depend on the distributor, but has other causes, such as the service has not been requested, for example, of the municipality does not allow it.

EU27

Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime.

For this indicator, in **Italy** the Sales Division currently monitors the time from disconnection to reconnection.

Thanks to the adoption of electronic meters, in most cases customers are not completely disconnected, but the available power is reduced to 15% of the power contracted. This allows customers to still have enough power for the essentials (lighting, refrigerator) until they pay their arrears.

For 2009, the data for Italy are available.

Enel undertakes in the medium term to report this indicator for all the countries in which it operates.

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
Disconnected customers by time from disconnection to reconnection:	(n.)	59,596	-	-	-	-	Electricity Italy
< 48 h	(n.)	24,905	-	-	-	-	Electricity Italy
48 h - 1 week	(n.)	11,649	-	-	-	-	Electricity Italy
1 week - 1 month	(n.)	14,791	-	-	-	-	Electricity Italy
1 month - 1 year	(n.)	8,251	-	-	-	-	Electricity Italy
Customers disconnected by time from disconnection to reconnection:	(n.)	6,613	-	-	-	-	Gas Italy
< 48 h	(n.)	831	-	-	-	-	Gas Italy
48 h - 1 week	(n.)	2,243	-	-	-	-	Gas Italy
1 week - 1 month	(n.)	2,976	-	-	-	-	Gas Italy
1 month - 1 year	(n.)	563	-	-	-	-	Gas Italy

EU28

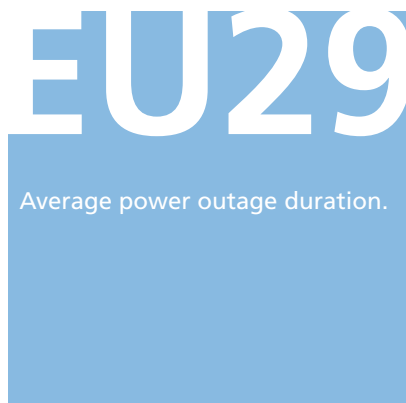
Power outage frequency.

The frequency of power outages is shown below.

Because of the difficulty in standardizing the data regarding the Latin American countries with respect to the European countries, the former are not reported in this document.

Enel undertakes in the medium term to report this indicator in all the countries in which it operates.

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008	2009-2008	
Outage frequency per customer (including external causes)	(n.)	4.9	5.3	5.1	-0.4	-7.0	Italy
Outage frequency per customer (excluding external causes)	(n.)	4.8	5.1	4.9	-0.3	-5.0	Italy
Outage frequency per customer	(n.)	6.7	-	-	-	-	Romania
Outage frequency per customer	(n.)	1.7	-	-	-	-	Iberia

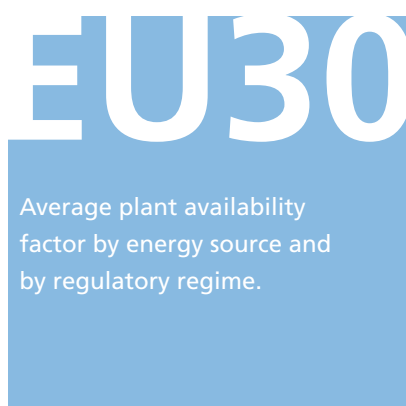


The indices regarding power outages are shown below.

Because of the difficulty of standardizing the data regarding the Latin American countries with respect to the European countries, the former are not reported in this document.

Enel undertakes in the medium period to report this indicator in all the countries in which it operates.

KPI	UM				%	Boundary
		2009	2008	2007	2009-2008	2009-2008
Service continuity index (excl. external causes)	(min.)	45	52	45	-7	-13.5 Italy
Service continuity index (incl. external causes)	(min.)	48	56	49	-8	-14.6 Italy
Service continuity index	(min.)	70	-	-	-	- Romania
Service continuity index	(min.)	45	52	45	-7	-13.5 Iberia



Plant availability is shown below.

Because of the difficulty in standardizing the data regarding the Latin American countries with respect to the European countries, the former are not reported in this document.

Enel undertake in the medium term to report this indicator in all the countries in which it operates.

KPI	UM				%	Boundary
		2009	2008	2007	2009-2008	2009-2008
Availability of coal-fired plants	(%)	71.0	76.1	81.1	-5.1	-6.7 Italy
Availability of CCGT plants	(%)	86.0	89.1	91.5	-3.1	-3.5 Italy
Average availability of thermal plants	(%)	78.3	73.0	73.3	5.3	7.3 Italy
Average availability of thermal plants	(%)	87.2	96.8	-	-9.6	-9.9 Slovakia
Average availability of thermal plants	(%)	95.7	-	-	-	- Iberia

PRODUCT AND SERVICE LABELING

PR3

Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.

As far as the market in **Italy** is concerned, Enel Energia's only certification, voluntary or required by regulations, is process certification. This certification entails periodical checks performed by Det Norske Veritas (DNV) and has the objective of ensuring customers who subscribe to green offers that the quantity of RECS certificates corresponds to their consumption.

The following innovations were introduced by the Sales Division in 2009:

- > **rates based on two time brackets** for households and businesses;
- > **portfolio of offers compensated with RECS** (EnergiaPura product Line);
- > business offers with RECS cancellation as an optional, green e-light web offer with only WEB bill;
- > **Enel Premia** loyalty point program for households and VAT payers <15 kW, which includes a bonus for customers who reduce their annual consumption;
- > **e-billing service** (CO₂ free);
- > payment methods (debit and credit card) that spare the customers from moving about and reduce the production of paper;
- > energy audits for customers - governments and Large Businesses.

The procedure for communicating the certificate is via the WEB site. Beginning in 2010, bills will inform customers of the share of the sources of the average national production (as provided for by the Legislative Decree issued on July 31, 2009).

For further information, see the EN6 indicator.

Furthermore, both Endesa Energía and Enel.si, sell products in the service market that include the assembly or installation of products and solutions (lighting, generating sets, condenser batteries, etc.) whose manufacturers are subject to labeling regulations. In these cases, the products display instructions regarding safety and disposal and Group companies distribute on behalf of the manufacturer the documentation with the information provided for by the law.

In **Slovakia**, Slovenské elektrárne is obliged to report the percentage of electricity produced from biomass to the distribution company.

In addition, the European Union's Directive 2003/54/EC on the liberalization of energy markets provides that "Member States shall ensure that electricity suppliers specify in or with bills and in promotional materials made available to final customers:

- a) the **contribution of each energy source to the overall fuel mix** of the supplier over the preceding year;
- b) at least the **reference to existing reference sources**, where information on the environmental impact in terms of at least emissions of CO₂ and the radioactive waste resulting from the electricity produced by the overall fuel mix of the supplier over the preceding year is publicly available.

In **Romania**, as soon as the measures implementing the EU Directive were issued, Enel Energie and Enel Energie Muntenia conformed by establishing a

system for providing all their customers with the aforesaid information. This information is public and can be consulted on Enel Romania's website. In addition, once a year the information is included on the energy bill that customers receive.

In **Spain**, in compliance with the regulations in force, Endesa requires that its equipment be installed by competent personnel authorized by the Government and included on the List of Installers. The installer's presence on this List guarantees that the equipment is put into operation after a safety test.

In the Spanish free market, Endesa is obliged to specify on bills the source from which the electricity was produced. The company offers a "[Green Electricity Rate](#)", for which it certifies that the electricity was produced from renewable sources.

In the case of electricity and gas, the obligations to provide information on the characteristics of the product are regulated and cover the following issues:

- > when supply contracts are established or changed, customers are informed of the different kinds of energy rates so that they can find the solutions most congenial to them;
- > when the supply is cut off because of scheduled work on the network, customers and the general public are informed in advance;
- > when the supply is cut off because of failure to pay, customers are notified in advance and they are disconnected only if there is evidence.

There are also other, annually defined instruments, which establish the budget for new supplies and for managing customer complaints.

In **Peru**, Edelnor complies with the regulations in force regarding the transparency of the information on bills, in commercial communications, and in notices concerning disconnections and any kind of work, inspection and/or manipulation of meters.

PR5

Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.

In **Italy**, during 2009 the Sales Division carried out 65 customer-satisfaction surveys, with more than 50,000 customers interviewed. The Division availed itself of a specialized company, which was chosen through a public tender and used the CATI (Computer Aided Telephone Interviewing) method for the survey. Customers in the free electricity market, the gas market, and the enhanced protection service, both household and business, were interviewed.

The survey regarded customers who contacted Enel through the Group's toll-free phone numbers (1,800/month), who were acquired through sales channels (about 2,100/month), or who were selected at random from the customer base (4,800/year).

The sample was constituted so as to obtain a margin of error of less than 5%, with a 95% confidence interval.

In addition to the usual period customer-satisfaction surveys of all the sales and contact channels, as well as of the customer- management units, Enel continued to use and develop the "on-the-spot" monitoring system introduced in 2008. After a telephone contact with the Company, by dialing a number from 1 to 5 customers can express not only their overall opinion of the conversation that just took place, but also say whether or not the matter for which they phoned Enel was handled satisfactorily.

The particular effectiveness of this survey system stems from the fact that

customers can assess the contact they had with the Company immediately and in its entirety, thus considering how long they had to wait and the courtesy and professionalism of person with whom they spoke, as well as the latter's ability to solve the problem.

Since the second half of 2008, the Electricity and Gas Authority also carries out a semi-annual investigation of the contact centers of companies that sell electricity and gas with more than 50,000 customers.

Enel's result for the first half of 2009 showed an 84.4/100 degree of customer satisfaction for the enhanced protection service and 75.9/100 for the free market.

In addition to customer satisfaction surveys, Enel also monitors its customers' satisfaction by analyzing the complaints it receives. In 2009, Enel Servizio Elettrico (enhanced protection service) received 115,800 complaints from its customers, to whom it responded in an average of 19.7 days, while Enel Energia (free electricity and gas market) received 95,500 complaints regarding the electricity service and 24,100 regarding the gas service, with an average response time of 35 and 20.8 days, respectively.

Customers can complain orally, by calling the dedicated toll-free numbers, or in writing, by sending a complaint on a special form available in offices or on the website.

Enel Servizio Elettrico answers from Monday through Friday from 8 a.m. to 10 p.m. and on Saturday from 8 a.m. to 2 p.m. at the toll-free number 800.900.800 (199.50.50.55 for cell phones).

Enel Energia answers 7/24 at the toll-free number 800.900.860 (199.50.50.65 for cell phones).

For further information, see the Alternative Dispute Resolution project on p. 302 of this Report.

In **Romania**, the following organizational changes took place between September 2008 and the end of 2009:

- > completion of Enel Muntenia's unbundling process in September 2008;
- > change of IT system for billing and CRM in June 2009;
- > new procedures in consequence of the new organization;
- > institution of a Customer Care unit on September 1, 2009.

In May 2009, Energie's Department of External Relations conducted a qualitative and quantitative survey through Gallup on customers in the Muntenia, Banat, and Dobrogea areas.

The overall objective of the survey was to find out how customers thought of the energy market and their supplier.

The detailed objectives were the following:

- > an assessment of the level of awareness about energy suppliers;
- > an assessment of consumers' attitude towards this category;

The results of the survey were the following:

- > in general, the interviewees were satisfied with the services. Thus 61% said they were very satisfied or quite satisfied, while 19% were very or quite dissatisfied, 19% were neither satisfied nor dissatisfied, and 1% did not express an opinion;
- > an analysis of the causes of satisfaction and dissatisfaction with Enel showed that the lack of power outages and low rates were the most important expectations that customers had of the electricity;
- > the lack of power outages is the main factor of satisfaction and was spontaneously mentioned first as a source of satisfaction by 32% of those surveyed. Acting quickly when needed was second, with 11%;

> the assessment of service quality was influenced mainly by three factors: the options available for paying bills, technical assistance, and the way customers were treated. These were factors most frequently mentioned by both those who thought that service quality was improving and those who thought it was getting worse.

On the basis of the results of the survey, [one of Enel Energie's most important projects is connected with developing the capabilities and expertise of front-office employees](#). To achieve the objective, Enel Energie organized a special course on "Customer-Oriented Communication", which led to an improvement in relations with customers in the company's offices. In effect, only 4 reports of poor behavior by Enel Energie employees were recorded in the second half of 2009.

Given this positive result, Enel Energie Muntenia will also implement this project. In addition, the procedure for monitoring customer satisfaction will be completed in the first half of 2010.

For all customer surveys in **Spain**, the method used by Endesa is the telephone interview, with the results being presented monthly and/or quarterly.

With regard to mystery shopping, which is done annually, the method is the pseudo purchase.

In 2009, a total of 53,000 phone interviews were carried out and more than 1,100 checks in sales and service offices. The company's general satisfaction index is 3% higher than that of its competition, thus enabling it to be the leader in its industry. Endesa has a score of 8.06 out of 10 in satisfaction with product and service value added (PSVA) and 7.08 out of 10 in customer satisfaction with the supply.

To assess customer satisfaction, in **Argentina**, Edesur carries out periodical activities to measure the success of its actions, the product of the application of continual improvements to its processes. Two kinds of surveys are carried out by external firms, which assess the extent to which the rules established for customer relations are followed (Unknown Customer - Mystery Shopper) and customer satisfaction (Real Customer - Customer Satisfaction).

In **Brazil**, the distribution companies Ampla and Coelce meters and the complaints received daily through the channels of attention. To assess customer satisfaction and perception, direct surveys are carried out of distinct segments of urban household customers. These surveys have been carried out since 2000 and assess 29 characteristics grouped into 5 areas of satisfaction: energy supply, information and communication with customers, energy bill, concern for customers, and image, so as to assess prices, social responsibility, and street lighting. A survey is also carried out annually for large customers. The marketing plan for these customers uses the data of the survey to develop actions focused on concern for customers and their needs.

"Being Coelce" is a survey assessing the public's perception of the company.

As a result, [in 2009, Coelce was elected the best electricity distributor in Brazil](#), obtaining a rating of 92.7% with regard to satisfaction with perceived quality, in addition to best distribution company in the Northeast, and won the national quality award for the excellence of its customer relations model.

In **Colombia**, the “Sistema de Calidad Percibida” (SCP) is based on indicators of customer satisfaction with the quality perceived and the price paid for various products that are standardized and comparative and with a high frequency of measurement. This allows the company to understand the performance of its products in the market.

In 2009, Condensa completed the construction of a satisfaction model on 100% of its products and consumer segments: 8 models for household customers and 5 for business customers, with more than 350 qualitative attributes monitored, about 100 reports a year generated, and 2,500 customers a month consulted. To monitor the energy products of household customers, Condensa participated in an international study on satisfaction (CIER), achieving a score of 81.9 out of 100 in 2009 and coming out among the top 9 in its category, its best performance since 2003. In addition, Condensa carried out two other surveys called “Passport”. This method enables the company to assess the feasibility for its customers when launching new products.

In **Chile**, Chilectra carries out various periodical surveys regarding the following:

- > *Household customer satisfaction*: a survey based on face-to-face interviews whose results are analyzed semi-annually to understand how customers form their opinion of Chilectra and how it impacts their opinions with regard to the changes that are made to improve the service;
- > *Business customer satisfaction*: surveys of business customers using face-to-face interviews are conducted semi-annually;
- > *Real-estate customer satisfaction*: a face-to-face survey monitored monthly for customers who finalize work with Chilectra.
- > *Municipal customer satisfaction*: an annual survey is carried out on 100% of the municipalities in the license areas, with both an operating assessment and a strategic one.

In **Peru** three kinds of surveys are conducted:

- > *Image survey*: an assessment of service and energy quality: Edelnor's image is assessed by its customers in terms of six factors (commitment, closeness, soundness, transparency, innovation, and rapidity). Another survey assesses concern for customers in service centers.
- > *Opinion-leader survey*: monitoring Endesa's Image.
- > *Street-lighting-quality survey*.

MARKETING COMMUNICATIONS

According to GfK-Eurisko's seventh brand equity report in November 2009, Enel's image in Italy continued to enjoy a positive trend last year.

Enel's **brand-equity indicator** (BE) is a model for assessing the extent to which ordinary people, enterprises, and opinion leaders perceive the brand according to an yearly statistical survey.

Overall, Enel's BE increased by half a percentage point with respect to 2008 and has grown by more than four points with respect to the first survey in 2003 in spite of the greater competitive pressure generated by liberalization.

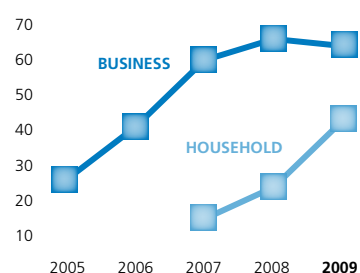
A more detailed reading shows several important results, including significant growth in the aspects of image linked to ethics (+ 9 points since 2003), price transparency (+ 2 points since the liberalization of the market in 2007), and the country system (+ 6 points since 2007), which show acknowledgement of the Company's social responsibility, its transparent approach, and its role beyond sales.

ENEL BRAND EQUITY INDEX - HOUSEHOLD CUSTOMERS (INDIVIDUALS)

	2003	2004	2005	2006	2007	2008	2009
Top of mind (%)	91	93	92	91	89	88	91
Total spontaneous (%)	98	97	98	97	96	96	96
Visibility equity	94	95	95	94	92	92	93
Propensity (average 1-5)	3.80	3.75	3.66	3.70	3.67	3.72	3.61
Customer relation (%)	43	44	43	42	45	48	47
Price transparency (%)	38	40	41	40	45	46	47
Technical expertise (%)	53	54	57	55	57	59	61
Institutional dimension (%)	70	74	75	75	75	76	76
Italy system (%)	45	44	49	49	51	55	57
Ethics (%)	35	39	39	38	42	44	44
Brand equity index	68.0	70.0	70.2	70.5	70.5	71.7	72.2

In 2009, Enel consolidated its "leadership" in the energy market in spite of the natural increase in competition and the alternatives to the Company.

% contacted by a supplier other than their own



The seventh brand equity survey conducted by GfK-Eurisko revealed that Enel consolidated its image and was confirmed as the leader in the energy market, maintaining its position as the top brand especially among household customers. In the household market in particular the importance of reliability still weighs heavily and actually seems to have increased with liberalization: reliability understood as the result of institutional strength (power, competence, and experience), as well as familiarity and empathy. In short, the ability to establish a relationship based on trust.

However, Enel's image as a sound and trustworthy company has not decreased its perception as a company that is active and dynamic from the competitive point

of view. In a market in which the pressure of competition accentuates the process of choosing a reference brand, Enel shows good responsiveness in generating consumer preference among households, while it essentially maintains the position already acquired among businesses. Finally, the GfK-Eurisko survey showed that Enel has made definite progress with regard to social responsibility.

The key characteristics attributed to Enel as an Italian industrial company and a sound multinational player are the reliability and responsibility of an Italian multinational that is able to make the transition to the future by investing in research on energy that is less costly and has less impact on the environment. Enel is also attributed an “institutional” role as a company that is able to create jobs and act creatively in the current economic or systemic crisis.

PR6

Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.

In accordance with the Code of Ethics (article 3.16), contracts and communication with customers, including advertising, must:

- > be clear and simple, using language as close as possible to the one normally used by people talking with each other: for example, avoiding clauses for mass customers that only experts understand, stating prices inclusive of VAT, and explaining every cost clearly;
- > comply with the regulations in force, without using practices that are deceitful or in any case unfair, such as, for example, the use of unscrupulous practices or clauses against consumers;
- > be complete, so that no detail that is significant for a customer's decision is neglected;
- > available on the Company's website.

The purposes and recipients of communications determine on each occasion the choice of the most suitable contact channels (bills, telephone, daily newspapers, e-mail) for transmitting the message without excessive pressure and urging and keeping the commitment to not use deceitful and untruthful advertising instruments.

Finally, Enel makes sure that it transmits in a timely fashion all Information regarding:

- > any changes in a contract;
- > any changes in the financial or technical conditions of proving the service and/or the sale of products;
- > results of checks conducted in compliance with the standards required by the supervisory Authority.

In **Italy**, Enel is a member of the UPA (associated advertising users), an association of leading companies in industry, commerce, and services that invest in advertising. The UPA in turn is a member of the IAP (institute of advertising self-regulation). Thus in its advertising, Enel follows the IAP's [Self-regulation Code for Commercial Advertising](#), of which the fiftieth edition was published on January 18, 2010.

Endesa adheres to self-regulation codes that go beyond the provisions of the law regarding truth in advertising.

In particular, in accordance with the Chilean Code of Advertising Ethics, the advertising agency with which Endesa Chile works in **Chile** adheres to and follows all the principles of the Code, which lead to good practices in advertising. Thus fundamental values and principles are upheld, including the rejection of violence, the transparency and truth of information so as not to deceive the public, restrictions on plagiarism and imitation, safety regulations, etc.

In **Peru**, in accordance with the ethical standards of communication, Edelnor adopts the National Advertising Association's Code of Conduct.

When carrying out advertising campaigns in **Brazil**, Endesa's companies follow the ethical principles of advertising adopted by the National Council of Advertising Self-regulation, the Statute of Children's and Adolescents' Rights, and the Universal Declaration of Human Rights. No violations of these principles have been recorded. All marketing and advertising material addressed to the public are approved by the company and sometimes by customers through surveys. After advertising campaigns, surveys are carried out to assess their impact to see if the message has been clearly understood by customers, the objective has been achieved and if the objective of the campaign has been achieved. All campaigns are subject to the approval of Multidisciplinary Communication Committees.

RESPECTING PRIVACY

PR8

Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.

In the period in question and in the three previous ones, no infractions took place in Italy. With regard to policies for protecting the privacy of customers, Enel has an organizational model and procedures that fully comply with the provisions of Legislative Decree n. 196/2003.

The persons in charge of data processing have been appointed and all the IT contrivances aimed at ensuring security in the processing and conservation of the personal data of Enel's customers are in place.

Furthermore, [specific clauses are provided for in contracts with partners who have to use such data to carry out particular activities](#), such as, for example, sales activities and customer satisfaction surveys.

Finally, Enel is deeply engaged in carefully monitoring all the companies that have occasion to use the personal data of customers.

In **Spain**, Endesa Energía had 26 complaints and Endesa Distribución 8. Almost all of them regard legal actions that began the previous year and ended in 2009. The total sum of the fines amounted to 727,113.31 euro, of which 607,012.10 concerned Endesa Energía and 120,101.21 Endesa Distribución.

In **Romania**, in carrying out their activities both Enel Energie and Enel Energie Muntenia observe the provisions of law n. 677/2001 regarding the protection of personal data. In accordance with the law of January 2009, the companies sent

the National Authority for Personal Data Supervision all of the required information regarding the processing of Customers' Personal Data.

This information has recently been updated to take into account the transfer of some of the aforesaid data abroad, to Italy.

The provisions regarding the protection and processing of such data pursuant to law n. 677/2001 are included in all the agreements with its suppliers entailing the processing of the personal data of its customers entered into by each company. Enel suppliers are also obliged to have notified the aforesaid National Authority. After the acquisition and separation of Electrica Muntenia Sud, in November 2008, because of several changes in the billing system following several errors in data transmission, the personal code number of our customers was printed on their bills. Because of this error, complaints were made and Enel Electrica Muntenia was investigated by the inspectors of the aforesaid National Authority. Since the problems were resolved before the inspection, no fine was inflicted. Furthermore, in order to better protect the personal data of customers, the billing procedure was changed, with bills being delivered in an envelope to customers' mail boxes. After all these security measures implemented at the beginning of 2009, no more complaints regarding the protection of personal data have been received.

Given the lack of uniformity and the diversity in the regulation of privacy in the Countries of Latin America with respect to European countries, the data of the former are not reported in this document.

Enel undertakes in the medium term to report this indicator in all the countries in which it operates.

CONFORMANCE

PR9

Monetary value of significant fines for non-compliance with laws and regulations concerning the supply and use of products and services.

In 2009, the monetary value of the fines for unfair business practices inflicted on Enel Energia SpA by the Antitrust Authority pursuant to Legislative Decree n. 206/2005 (Consumption Code) amounted to 100,000 euro (50,000 euro for Order IP/49 and 50,000 euro for Order PS/3224). Enel has appealed Order IP/49 to the Lazio TAR (Regional Administrative Court) and intends to appeal Order PS/3224. In addition, with its decision n. 3722 of March 25, 2009 n. 3722, the TAR of Lazio partially quashed order PS/91 regarding a proceeding for unfair practices (Enel Energia Request to Change Supplier), annulling the two fines of 100,000 euro inflicted, respectively, on Enel Energia and Enel SpA for an unfair business practice, while upholding the fine for the remaining practices established by the Antitrust Authority, in the amount of one million euro.

With its decision n. 5290 of May 27, 2009, the TAR of Lazio left it up to the Authority to re-determine the amount of the fine regarding proceeding PS/1554 (*Enel arrears because of delay in bill delivery*) inflicted on Enel Energia and Enel Servizio Elettrico, amounting to a total of 435,000 euro.

In **Brazil**, following supply interruptions, Aneel (General Director and Manager of the Authorities) increased the severity of the fines and other penalties inflicted on Endesa.

The fines for 2009 amount to 13 million euro, including 8.3 million euro charged to Coelce. The Increase in fines with respect to 2008 – when they amounted to 2.5 million euro, including 839,000 euro charged to Coelce – was due to a tax measure applied by Aneel in consequence of an inspection of the services of

Coelce Plus, which were connected with distribution and the offer of energy to consumers. The fine has not been paid yet, because the distributor appealed Aneel's decision and is awaiting the final decision.

Fines in **Peru** in 2009 amounted to 86,060 euro and do not include those inflicted for power outages.

See also the comment on the SO8 indicator on page 284 of this document.



The Numbers

ELECTRICITY MARKET ITALY (1/2)

KPI	UM	2009	2008	2007	2009-2008	%	Boundary
ELECTRICITY MARKET ITALY							
EU3 Customer portfolio							
Volume electricity sold	(TWh)	127.1	137.0	142.4	-9.9	-7.2	Italy
- Volume sold free market	(TWh)	55.8	55.3	39.9	0.5	1.0	Italy
- Volume sold regulated market	(TWh)	71.3	81.7	102.5	-10.4	-12.8	Italy
Customers electricity sale	(,000)	29,723.1	30,232.8	30,715.3	-509.6	-1.7	Italy
- Customers free market	(,000)	2,536.6	1,813.7	1,226.1	723.0	39.9	Italy
- Customers regulated market	(,000)	27,186.5	28,419.1	29,489.2	-1,232.6	-4.3	Italy
Sales "Green Energy" ⁽¹⁾	(GWh)	7,968	4,600	1,066	3,368	73.2	Italy
Customers street lighting	(n.)	3,974	3,986	-	-12	-0.3	Italy
Light sources street lighting	(,000)	1,990	1,970	-	20	1.0	Italy
Sales network							
Enel offices (electricity + gas)	(n.)	131	131	135	-	-	Italy
Qui Enel / Qui Gas	(n.)	1,722	1,519	1,271	203	13.4	Italy
Supply activation							
Execution of simple work	(days)	7.2	7.9	9.6	-0.7	-8.7	Italy
Supply activation	(days)	0.9	1.0	1.5	-0.1	-12.6	Italy
EU29 Technical quality							
Service continuity index (excluding external causes)	(min)	45	52	45	-7	-13.5	Italy
Service continuity index (including external causes)	(min)	48	56	49	-8	-14.6	Italy
Investment in quality	(million euro)	87	169	182	-82	-48.5	Italy
Bonuses / Penalties for the service	(million euro)	17	34	183	-17	-50.0	Italy
Outage frequency per customer (including external causes)	(n.)	4.9	5.3	5.1	-0.4	-7.0	Italy
Outage frequency per customer (excluding external causes)	(n.)	4.8	5.1	4.9	-0.3	-5.0	Italy

ELECTRICITY MARKET ITALY (2/2)

KPI	UM	2009	2008	2007	2009-2008	%	Boundary
Call Center 800 900 800 enhanced protection service							
Call Center service level	(%)	93	89	86	4	4.3	Italy
Average waiting time	(sec)	152	194	178	-42	-21.6	Italy
Training for Call Center operators (IN Enel)	(h/per person)	28	88	72	-60	-68.2	Italy
Call Center 800 900 860 free market (electricity and gas)							
Call Center service level	(%)	94	91	-	3	3.6	Italy
Average waiting time	(sec)	149	155	-	-6	-3.9	Italy
Training for Call Center operators (IN Enel)	(h/per person)	55	128	-	-73	-57.0	Italy
PR5 Customer satisfaction enhanced protection service							
Customer satisfaction index recorded by 'AEEG' ⁽²⁾	(index)	84	89	7.2	-5	-5.6	Italy
Frequency AEEG surveys	(n.)	2	2	12	-	-	Italy
Written complaints and requests for information	(,000)	115.8	82.8	90.2	33.1	39.9	Italy
Response time written complaints	(days)	19.7	36.2	34.9	-16.5	-45.6	Italy
PR5 Customer satisfaction free electricity market							
Customer satisfaction index recorded by AEEG ⁽³⁾	(index)	76	72	-	4	5.6	Italy
Frequency AEEG surveys	(n.)	2	2	-	-	-	Italy
Written complaints and requests for information	(,000)	95.5	51.1	-	44.4	86.8	Italy
Response time written complaints	(days)	35.0	46.9	-	-11.9	-25.4	Italy
PR8 Litigation with customers electricity market Italy							
Total proceedings	(n.)	139,588	104,406	107,931	35,182	33.7	Italy
% proceedings as defendant	(%)	95.3	94.2	91.2	1.1	1.2	Italy
GAS MARKET							
EU3 Customer portfolio							
Volume gas sold	(million m ³)	5,169	5,677	4,897	-508	-9.0	Italy
Customers mass market	(million m ³)	3,301	3,222	2,865	79	2.4	Italy
Business customers	(million m ³)	1,868	2,455	2,032	-587	-23.9	Italy
Gas customers ⁽⁴⁾	(,000)	2,773.4	2,644.0	2,462.4	129.4	4.9	Italy
PR5 Customer satisfaction Gas							
Written complaints and requests for information	(,000)	24.1	20.0	4.4	4.1	20.4	Italy
Response time written complaints	(days)	20.8	25.5	18.5	-4.7	-18.4	Italy
PR8 Litigation with gas market customers							
Total proceedings	(n.)	479	116	354	363	312.9	Italy

(1) RECS certificates cancelled or in the process of being cancelled for 2008. The 2007 value, amounting to 1,066 GWh, was reclassified according to the same criterion.

(2) Since 2008, this number, recorded by the AEEG, has been expressed in hundredths and has been carried out semi-annually on a limited sample of about 1,200 customers. In 2007, instead, the number was recorded by Enel and was expressed in tenths on a monthly sample of about 2,000 customers.

(3) This number regards the free electricity + gas market. Recorded by the AEEG, it is expressed in hundredths and is calculated semi-annually on a limited sample of about 1,200 customers.

(4) Includes dual energy.

FOREIGN MARKET (1/2)

KPI	UM					%	Boundary
		2009	2008	2007	2009-2008		
Volume electricity sold							
Volume sold free market	(GWh)	87,416	42,199	26,251	45,217	107.2	Enel
Iberia	(GWh)	72,137	32,417	7,663	39,720	122.5	Enel
Romania	(GWh)	1,022	981	644	41	4.2	Enel
France	(GWh)	3,276	1,031	394	2,245	217.7	Enel
Russia	(GWh)	5,243	3,154	17,222	2,089	66.2	Enel
Latin America	(GWh)	5,738	4,616	328	1,122	24.3	Enel
Volume sold regulated market	(GWh)	72,902	90,960	27,640	-18,058	-19.9	Enel
Iberia	(GWh)	15,371	43,133	16,094	-27,762	-64.4	Enel
Romania	(GWh)	8,576	6,812	4,274	1,764	25.9	Enel
Russia	(GWh)	14,433	14,264	203	169	1.2	Enel
Latin America	(GWh)	34,522	26,751	7,069	7,771	29.0	Enel
Total volume sold abroad	(GWh)	160,318	133,159	53,891	27,159	20.4	Enel
Iberia	(GWh)	87,508	75,550	23,757	11,958	15.8	Enel
Romania	(GWh)	9,598	7,793	4,918	1,805	23.2	Enel
France	(GWh)	3,276	1,031	394	2,245	217.7	Enel
Russia	(GWh)	19,676	17,418	17,425	2,258	13.0	Enel
Latin America	(GWh)	40,260	31,367	7,397	8,893	28.4	Enel
EU3 Total customers foreign market	(,000)	27,276	18,798	17,948	8,478	45.1	Enel
Iberia	(,000)	11,700	7,811	8,353	3,889	49.8	Enel
Romania	(,000)	2,565	2,557	1,444	8	0.3	Enel
France	(n.)	26	15	7	11	73.3	Enel
Russia	(,000)	105	105	123	-	-	Enel
Latin America	(,000)	12,906	8,325	8,028	4,581	55.0	Enel

FOREIGN MARKET (2/2)

KPI	UM	2009	2008	2007	2009-2008	%	Boundary
ELECTRICITY MARKET ROMANIA							
EU3 Customer portfolio	(,000)	2,565	2,557	1,444	8	0.3	Romania
Customers free market	(,000)	1.6	1.4	0.8	0.2	12.1	Romania
Customers regulated market	(,000)	2,563	2,556	1,443	8	0.3	Romania
Sales network							
Agencies	(n.)	82	75	95	7	9.3	Romania
Indirect channel	(n.)	-	3	2	-	-	Romania
Supply activation							
Supply activation	(days)	44	-	-	-	-	Romania - Banat
Supply activation	(days)	37	-	-	-	-	Romania - Dobrogea
Supply activation	(days)	37	-	-	-	-	Romania - Muntenia
EU29 Technical quality							
Service continuity index	(min)	557	-	-	-	-	Romania
Outage frequency per customer	(n.)	6.7	-	-	-	-	Romania
Call Center							
Call Center service level (regulated market)	(%)	83	-	-	-	-	Romania
PR5 Customer satisfaction (regulated market)							
Written complaints and requests for information	(,000)	10.4	-	-	-	-	Romania
Response time written complaints	(days)	7	-	-	-	-	Romania
ELECTRICITY MARKET IBERIA							
EU3 Customer portfolio ⁽²⁾	(,000)	11,700	7,811	8,353	3,889	49.8	Iberia
Customers free market	(,000)	11,700	907	778	10,792	1,189.3	Iberia
Customers regulated market	(,000)	0	6,904	7,575	-6,904	-100.0	Iberia
Sales network							
Agencies	(n.)	40	-	-	-	-	Iberia
Indirect channel	(n.)	447	-	-	-	-	Iberia
Supply activation							
Supply activation	(days)	1.9	-	-	-	-	Iberia
EU29 Technical quality							Iberia
Service continuity index	(min)	70	-	-	-	-	Iberia
Outage frequency per customer	(n.)	1.7	-	-	-	-	Iberia
Call Center							
Call Center service level	(%)	82	-	-	-	-	Iberia
ELECTRICITY MARKET LATIN AMERICA							
EU3 Customer portfolio	(,000)	12,906	8,325	8,028	4,581	55.0	Latin America
Customers free market	(,000)	6.48	4.23	0.12	2	53.2	Latin America
Customers regulated market	(,000)	12,900	8,321	8,028	4,579	55.0	Latin America

(1) 100% consolidated as from 2009 (in 2008, 67.05%).

(2) On July 1, 2009 the "TUR" went into effect, so there are no longer regulated customers, they having shifted to the free market.

Enel Cuore

Enel Cuore Onlus

Enel has worked enthusiastically for many years on the subject of sustainability. This commitment has been rewarded by important results. In effect, Enel's growth is founded on a strategy of financial soundness and the profitability of its long-term business plan, while fully respecting its stakeholders and the balance among economic, environmental, and social variables that make up Corporate Social Responsibility.

In 2003, Enel Cuore Onlus came into being, along with the special unit dedicated to CSR. This was a precise signal of Enel's Intention to create a non-profit organization through which it could express its commitment to social welfare and development, without any connection with the Company's business.

This was a transparent decision, aimed at distinguishing sustainability – which by its nature is linked with strategic and industrial choices – from corporate philanthropy. It is an organizational model that rigidly separates activities and reporting to characterize Enel's overall commitment to social development as responsibility, the result of an overall assessment of the presence and interaction of our Company with society as a whole and in particular with the third sector.

In 2009, Enel Cuore Onlus supported a total of **88 social welfare projects in Italy and abroad**, in particular in the countries of Eastern Europe and Latin America, in favor of children, the ill, the elderly, and the disabled.

The following are several of the most significant projects in terms of the issue concerned, in Italy and abroad.

Welfare Services

Special attention is paid to women who are victims of violence or have problems of social and economic integration, have children, and need an appropriate place to wean and look after them.

For this purpose, Enel Cuore contributed 747,000 euro to initiatives in favor of **Mother-Child Communities**, which allowed five houses to be renovated and opened to take in mothers in trouble in Umbria, Sardinia, Campania, Emilia Romagna, and Sicily.

Health Care

Enel Cuore Onlus supports the A.I.P.O. – the Italian Association of Hospital Lung Specialists with a contribution of 150,000 euro to create six of the instruments called E.L.S.A. for six pneumology units in hospitals, five excellent ones in Italy and one in the United States, in Boston.

E.L.S.A. (Energy Lung Sound Analysis) is an innovative non-invasive technique for diagnosing the respiratory sound developed by Enel Engineering and Innovation SpA's Research and Development Policies Center, the sole owner of the European patent, which has granted the A.I.P.O. a temporary non-exclusive license free of charge for the duration of the project aimed at disseminating and testing this technique.

This basic technology has been used to record the "sound of breathing", finding and measuring quantitative parameters for diagnosing the quality of the respiratory functions of both adults and children.

Shelters

Enel Cuore Onlus is continuing its support in favor of the homeless as part of the "A Heart at the Station" project, which was conceived in cooperation with the Italian National Railways and aimed at taking concrete steps to help extremely marginalized people in stations in 15 major Italian cities.

This commitment has led to the opening of the "Track 95" multipurpose day center close to Termini Station in Rome, which welcomes and assists people in trouble and accompanies them in a process of re-integration in society.

Also as part of the "A Heart at the Station" project, Enel Cuore Onlus supports the creation of shelters in Turin and Melfi, as well as, with a contribution of 600,000 euro, the "Don Luigi di Liegro" Hostel on Via Marsala in Rome for the renovation of the Caritas soup kitchen, which provides more than 500 meals a day.

Enel Cuore Onlus also supports other initiatives addressed to people who are victims of social exclusion, facilitating the development of shelters to welcome them.

Among the many we should mention:

- > **Missione Speranza e Carità**, which, thanks to Enel Cuore's contribution of 191,663 euro, was able to open a new refectory capable of providing 2,500 meals a day for the poor and needy of Palermo;
- > **Centro Astalli** in Rome, which welcomes refugees and immigrants and with Enel Cuore's contribution of 100,000 euro is renovating and enlarging its soup kitchen and a shelter;
- > **Opera san Francesco per i Poveri**, one of the most well-known and esteemed associations in Milan because of its work with the needy, which is opening a pharmacy and related warehouse with Enel Cuore's contribution of 191,663 euro.

The elderly

Enel Cuore Onlus pays special attention to the needs of the elderly who are not able to take care of themselves and live in solitude. In particular, in Southern Italy, with a total contribution of 249,290, it supports the development and creation of operating centers that provide a **service of accompaniment and assistance to people suffering from Alzheimer's disease**.

Abroad

The efforts and commitment of Enel Cuore Onlus in communities of several of the neediest areas are focused mainly on childhood to ensure children's right to health and education.

Thus Enel Cuore decided to donate a total of 1,967,500 euro to initiatives for the benefit of children.

Among these are: **the creation of 2 schools for children in the poorest sections of Oaxaca, Mexico and Guatemala City; 8 day centers in Romania for children abandoned by parents who emigrated; and the renovation, in Petrovo, Bulgaria, of an institute that hosts 78 children suffering from serious psychological disturbances.** In addition, there are a number of initiatives in Russia regarding the renovation of day centers for children, as well as a hospice for the terminally ill in Moscow.

Sums disbursed in 2009

These are the sums disbursed to Enel Cuore Onlus in 2009 by the associated Enel companies.

Company	Association dues 2009	Donations from Associates	Restricted donations from Associates*	Total
Enel SpA	40,000	500,150	-	540,150
Enel Distribuzione SpA	40,000	3,000,000	11,127,169	14,167,169
Enel Produzione SpA	40,000	2,500,000	10,000,000	12,540,000
Enel Energia SpA	40,000	4,995	1,000,000	1,044,995
Enel Sole Srl	40,000	-	-	40,000
Enel Green Power SpA	40,000	-	2,000,000	2,040,000
Enel Trade SpA	40,000	-	1,000,000	1,040,000
Totals	280,000	6,005,145	25,127,169	31,412,314

* Including 25,000,000 euro as a donation to the Special Fund established by article 81 of Legislative Decree 112/2008 (Social Card).

Contribution to support the Social Card Special Fund

In 2009 the Association was given 25 million euro as the second installment of the 50-million-euro contribution to support the Special Fund instituted by article 81 of Decree Law n. 112 of June 21, 2008, which was converted with amendments by Law n. 133 of August 6, 2008.

The donation was made in accordance with the agreement signed by the Ministry of the Economy and Finance - Treasury Department, the Ministry of Labor, Health, and Social Policies, Enel SpA, and Enel Cuore Onlus on December 19, 2008.

The Social Fund is financed by, among other things, voluntary charitable contributions from anyone, including, in particular, the companies and other organizations that operate in the energy industry. Its purpose is to satisfy the needs – regarding first of all food, and then energy and health – of the most economically disadvantaged Italian citizens by giving them a purchasing card, the so-called “Social Card”.

Enel's Code of Ethics provides, as a fundamental principle, for it to show its responsibility towards the community by supporting socially valuable initiatives. Thus the Company decided to make a contribution through Enel Cuore Onlus, an institutional instrument for corporate social responsibility activities, to enable the Association to contribute to the financing of the Special Fund.

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Performance Indicators

- EC

 Economic
- EN

 Environment
- LA

 Labor practices and decent work
- HR

 Human Rights
- SO

 Society
- PR

 Product Responsibility

