

## ENERGY IN TUNE WITH YOU





# Sustainability report 2003

Economic, environmental and social responsibility





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## Who we are

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## Introduction

- > A message from the Chairman
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### A message from the Chairman



**Piero Gnudi, Chairman**

65 years old

Director of IRI from 1994 to 1999 and subsequently Chairman until 2000

Member of the steering committee of Assonime and the executive committee of the Aspen Institute

Chairman of RAI Holding, vice-chairman of UniCredito Italiano Banca d'Impresa and director of UniCredit

Designated by the Ministry of the Economy and Finance

Sustainability is fundamental in Enel's strategy. We are deeply convinced that the creation of value for shareholders – the primary goal of all responsible corporate business activities – does not conflict at all with the pursuit of environmental and social objectives. On the contrary, we are convinced that our competitiveness and the success of our trademark are inevitably connected with our ability to make our activities sustainable.

That is precisely why it is with great satisfaction that we are publishing our second sustainability report. We worked in 2003 not only to achieve ambitious economic objectives, but also to improve our conduct with regard to environmental and social issues. We can say to our great satisfaction that we did things conscientiously both within and outside the Enel Group, and the results that you will find in this report abundantly testify to it.

We established rules for ourselves that are in the forefront. In order to supplement what we did in the recent past, we revised our Code of Ethics a year after it went into effect in order to make it even stricter. We worked even more on the application of the rules so that the principles we had established would not remain mere abstractions. In this way, with the Code of Ethics as our constant source of inspiration, we carried out within the Group a specific training activity regarding its application among the men and women who work at Enel.

In general, we believe that transparency should be the paradigm according to which corporate policy is elaborated and that this implies the constantly increasing involvement of Enel's human resources and an adequate flow of information within the Group and towards our stakeholders. To this end, the report gives an account of the progress we made regarding not only economic indicators, but also those connected with the satisfaction of our customers and the quality of the service we provide, workplace safety and protection of the environment. Among the results achieved, we note that, thanks to improvements made in its power plants, during 2003 Enel reduced its atmospheric emissions of CO<sub>2</sub> by 7%.

Special mention should be made of the activity Enel Cuore Onlus, which consider an additional important result of our sustainability strategy. This initiative was launched with the contribution of the Enel companies, which – after the initial phase in 2003 – in 2004 will give a total sum amounting to over 6 million euros. Enel Cuore Onlus supports selected activities of volunteer organizations both in Italy and abroad, so that in our strategy we also pay due attention to solidarity and to concretely help people who are weaker and less fortunate. Actions are planned to assist the elderly at home and to support a service center at a hospital for children.

For us, sustainability is by now an everyday practice, and knowing that we are on our way to becoming a benchmark in this regard, and not only in Italy, makes us proud. We are certain that this report will constitute a new and significant demonstration of our commitment in this field and that it will help even more people understand the importance of sustainability in the strategy of a successful enterprise.



## Enel's mission

Enel's mission is to be the most efficient producer and distributor of electricity and gas, emphasizing the market and the quality of its service, with the goal of creating value for its shareholders, satisfying its customers, and fostering the potential of all the people who work for it.

## A message from the Chief Executive Officer



**Paolo Scaroni, Chief Executive Officer**

57 years old

Director of BAE Systems and Alliance Unichem and member of the Board of the Columbia University Business School in New York

Member of the Supervisory Board of ABN AMRO Bank

President of the Unindustria Venezia association

Designated by the Ministry of the Economy and Finance

When almost two years ago we started to take stock of and audit Enel's social responsibility by adopting international benchmarks, we were sure that we found many positive results. Just as we were certain that we would have to improve those results in order to attain excellence in elaborating and managing our strategies of social responsibility. It was a resolute decision on the part of the Board of Directors. We created an office of social responsibility, extended the duties of management control to the observation and recording of the factors that measure its application and success.

Recognition came in a hurry. The Financial Times included us in its sustainability index, the Dow Jones index announced that we were next in line for admission, and other important Italian and European indices acknowledged the Enel's effort and speed in systematizing its sustainability and reporting it. In December 2003 Enel won the Oscar for its Sustainability Report.

We are continuing along this path. Our strategic business plan for the period 2004-2008 comprises 76 objectives of sustainability and social responsibility that are closely connected with all the Company's fundamental business activities. These objectives range from improving the fuel mix we use to the constant improvement of the safety of our workers and workplaces, from controlling atmospheric emissions to training our human resources, and from our relations with associations, interest groups and communities to the satisfaction of our customers.

During 2004 we will initiate an educational program regarding social responsibility that will continue throughout 2005 and will involve 4,300 men and women who work at Enel mainly supervisors. We shall explain to them the ethics, the concept of corporate governance and the environmental and social policies on which our social responsibility is based. It will be their job to transfer the concepts into everyday work life in order to enable us to successfully carry out our plans for action in this direction.

We have also clarified the framework of our relations with our suppliers, asking all of them – with no exceptions – to abide by our ethical principles in their conduct. We have also dedicated special attention to further improving our relations with our customers, both household and business.

“Energy in tune with you”, the phrase that currently accompanies our trademark and all our communication, both internal and external, means precisely this: the ability to grasp and interpret the requirements of the market and to adjust to them in order to ensure an excellent service and performance. We ensure the same commitment and to listen to and cooperate with the communities where we work and to all those diverse interlocutors of ours called stakeholders.

The objective remains the same: to improve our shareholders' return, carry out the fundamental points of our mission (stated above) and lower the Company's risk profile in order to make it an attractive investment, with steady growth and low volatility. At the beginning of this path there were about 20 socially responsible specialized investment funds present among our shareholders. Now there are 32 of them, controlling more than 16% of the shares held by institutional investors, and we are committed to attracting more and more of this kind of investment. The first occasions dedicated to explaining to the financial community Enel's commitment to corporate social responsibility – and its ability to integrate it in the Company's overall strategy – confirm the esteem of those who invest part of their capital in our Company and their encouragement to continue firmly in this direction.

## Enel's social responsibility

- > Aims and structure of the Sustainability Report
- > Companies included in the Report

Enel believes in a fiduciary relationship between those who govern the Company and its stakeholders. In its Code of Ethics Enel refers to the cooperative approach and its fiduciary duties with regard to all its stakeholders, terms which are meant to summarize the idea of a possible agreement among all the participants in the accomplishment of the corporate mission according to each one's legitimate demands. For Enel, all of this translates into listening to the requests of the different stakeholders, examining their expectations and being committed to respond to their requests within the framework of the strategy of sustainability and social responsibility to which it has committed itself. The application of the ethical dimension, therefore, takes place at Enel through its effort to reduce the tension between its obligations to the shareholders and its obligations to all the other stakeholders abolishing their presumed order of priority, even if that were to mean taking a step backwards with respect to the requests put forward; if the stakeholders, that is, individually had to relinquish – or defer – part of their requests in behalf of a common benefit.

### Aims and structure of the Sustainability Report

The publication of the Sustainability Report is the essential instrument for the communication of Enel's Corporate Social Responsibility. It offers readers a summary view of the Company's economic, environmental and social performance.

The document is divided into:

- > a general part, which presents a summary view of Enel's economic, environmental and social performance and a description of especially important initiatives;
- > a supporting part containing more detailed information and graphs regarding the content of the first part.

The document is based on the main international standards on sustainable economic growth – Global Reporting Initiative, the London Benchmarking Group model, Accountability 1000, the basic tenets of the Global Compact – but also taking into account the suggestions and observations made by rating agencies such as SAM, EIRIS, E. Capital Partners, Avanzi and Vigeo during the discussions and meetings held in 2003 and the first months of 2004. In addition, Enel has already adopted the requirements requisites suggested by the Ministry of Labor and Social Policies as part of the Corporate Social Responsibility – Social Commitment Project, the Italian contribution to the campaign to disseminate Corporate Social Responsibility in Europe ([www.welfare.gov.it](http://www.welfare.gov.it)).

### Companies included in the Report

The data and information contained in this document, unless stated otherwise, refer to Enel and the companies that were consolidated as of December 31, 2003.

The main companies are listed on page 11. Thus, "Company" or "Enel" means Enel SpA. and its consolidated subsidiaries, while "Parent Company" refers to Enel SpA.

Together with Enel's consolidated financial statements, the Sustainability Report is submitted for approval to the Board of Directors of Enel SpA.

## Consolidated highlights

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	2003	2002	
			Restated <sup>(1)</sup>
<b>Income-statement data (millions of euros)</b>			
Revenues	31,317	29,977	30,471
Gross operating margin	9,841	7,861	7,695
Operating income	4,732	2,880	2,813
Net income	2,509	2,008	2,035
<b>Financial data (millions of euros)</b>			
Net capital employed	45,489	45,309	
Net financial debt	24,174	24,467	
Shareholders' equity including minority interests	21,315	20,842	
Cash flow from operations	7,173	4,793	
Capital expenditure	3,969	5,717	5,631
Consolidated equity investment	1,601	2,339	
Debt to equity ratio	1.13	1.17	
<b>Ratios</b>			
ROI (%) <sup>(2)</sup>	9.55	5.9	
ROE (%) <sup>(3)</sup>	11.98	9.6	
Gross-operating-margin-to-net-financial-expense ratio (absolute value)	8.7	6.7	
<b>Per-share data (euros)</b>			
Net income per share	0.41	0.33	0.34
Shareholders' equity per share	3.48	3.43	
Dividend per share	0.36	0.36	
<b>Operating data</b>			
Net electricity generated in Italy (TWh)	137.8	145.1	131.4
Electricity sold on free and regulated markets in Italy (TWh) <sup>(4)</sup>	152.2	181.3	
Electricity transported on the distribution network in Italy <sup>(4)</sup>	244.4	243.4	
Gas sales (billions of m <sup>3</sup> )	6.8	5.6	
> of which to end customers (billions of m <sup>3</sup> )	4.4	2.9	
Installed net efficient capacity (MW)	45,744	46,456	
> of which abroad (MW)	3,898	2,704	
Human resources at year-end (no.)	64,770	71,204	
<b>Market indicators</b>			
Average charge to cover the cost of fuel (€/kWh)	4.20	3.78	
Average price of Brent oil (US dollars per barrel)	28.9	25.1	
Average price of low-sulfur fuel oil (US dollars per ton) <sup>(5)</sup>	179.4	148.2	
Average price of coal (US dollars per ton) <sup>(6)</sup>	38.0	35.5	
Average US dollar/euro exchange rate	1.131	0.946	
Six-month Euribor rate	2.30%	3.35%	

(1) Data refer to the restated consolidated income statement, which excludes Eurogen and Interpower, which were sold in May 2002 and January 2003, respectively.

(2) Operating income/average gross capital employed.

(3) Group net income/average Group Shareholders' Equity.

(4) Excluding sales to dealers.

(5) Platt's CIF Med Index.

(6) Coal Week International Index for the mix considered by the Authority for Electricity and Gas.

## Board of Directors and Board of Statutory Auditors

### Board of Directors

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**Piero Gnudi**  
Chairman



**Paolo Scaroni**  
Chief Executive Officer



**Mauro Miccio**

48 years old

Professor of communication-related subjects

Entrepreneur in the fields of publishing and communication

Member of the executive and steering committees of the Unione Industriali di Roma e del Lazio

Vice-president of the Piccola Industria association

Chief Executive Officer of Eur SpA

Designated by the Ministry of the Economy



**Franco Morganti**

72 years old

President of the ANFOV (association of multimedia convergence companies) and vice-president of the International Institute of Communications

Designated by the Institutional Investors

**Fernando Napolitano**

39 years old

Chief Executive Officer of Booz Allen Hamilton Italia

Member of the committee for surface digital television of the Communications Ministry

Member of the board of directors of the CIRA (Italian Center for Aerospace Research)

Designated by the Ministry of the Economy

**Francesco Taranto**

63 years old

Member of the boards of directors of Pioneer Global Asset Management (Unicredito Group), Kedrios and Banca Carige

Designated by the Institutional Investors



**Gianfranco Tosi**

56 years old

Professor of iron metallurgy and the technology of metal materials

Designated by the Ministry of the Economy

### Board of Statutory Auditors

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**Bruno De Leo**

Chairman

66 years old

Chairman of the board of statutory auditors of So.g.i.n.

Member of the board of statutory auditors of RAI Trade



**Franco Fontana**

Regular Statutory Auditor

60 years old

Professor of economics

Head of the Department of Economics of the LUISS

Director of the School of Management of the LUISS



**Gustavo Minervini**

Regular Statutory Auditor

80 years old

Lawyer

Professor emeritus of commercial law

Chairman of the Board of Directors of Società Autostrade Meridionali

## History

On December 6, 1962 Enel (Ente Nazionale per l'Energia Elettrica) was created for the purpose of generating, importing and exporting, transporting, transforming, distributing and selling electricity. Within thirty years Enel had accomplished its mission: Italy was completely electrified.

At the beginning of 1991 the government began the liberalization of the energy industry and in August 1992 Enel was transformed into a corporation with the Treasury Ministry as its sole shareholder.

In 1999 Enel was privatized and listed on the stock market, with a flotation of almost 4 billion shares. By the end of 2002, the downsizing of Enel – decided by the government as part of the liberalization of Italy's electricity market – was essentially completed and the process of refocusing on its core business of energy had begun. The goal was to grow and become the leading producer and distributor of electricity and gas.

### Main stages

1962-1967	The birth of Enel and the years of organization
1968-1972	The electricity highways
1973-1977	The great oil crisis
1978-1982	New solutions for energy
1983-1987	Italy decides to abandon nuclear energy
1988-1995	From public statutory body to corporation
1996-2002	Towards the new Enel
2003	The new Enel

A more detailed view of Enel's history is available at: [www.enel.it/gruppo\\_eng/st\\_lastoria.htm](http://www.enel.it/gruppo_eng/st_lastoria.htm)

## Organization

### Enel SpA

Purchases

Administration, Finance and Control

Auditing

International and Regulatory Affairs

Communication

E-Business & Telecommunication Development

Legal Affairs

Human Resources and Organization

Corporate Affairs

### Generation and Energy Management Division

- > Enel Produzione
- > Enel Green Power
- > Enel Trade
- > Enel Logistica Combustibili
- > Conphoebus

### International Division

- > Viesgo Generación
- > Enel Unión Fenosa Renovables
- > Maritza
- > Enel North America
- > Enel Latin America

### Telecommunication Division

- > Wind

### Market, Infrastructure and Networks Divisions

#### Electricity

- > Enel Distribuzione
- > Enel Energia
- > Deval
- > Enel Sole
- > Enel.si

#### Gas

- > Enel Distribuzione Gas
- > Camuzzi
- > Enel Gas

- > Electra de Viesgo Distribución
- > Viesgo Energía

### Services and Other Activities Division

- > Enel.it
- > Enel.Net
- > Ape
- > Sfera
- > Enel Real Estate
- > Newreal
- > Enelpower
- > Enel.Hydro
- > Enel.Factor
- > Enel.Re

### Transmission Networks

- > Terna
- > TSN - Novatrans

## Growth strategy

Enel is a very different company with respect to the one it was two years ago. We now concentrate mainly on the electricity and gas businesses. The yield on our shares in 2003 was 16%, including the dividend. We constantly compare our costs and the quality of our service to those of the leading energy companies in the world and we have set ourselves ambitious operating, financial and strategic goals for each of the next few years, following the guidelines of the new strategy announced in September 2002. Last year we surpassed the goals in all our businesses.

We are committed to growing in energy outside of Italy, but shall seize only those opportunities that really create value and satisfy our strict investment criteria. In 2003 we applied these criteria to our acquisitions in Bulgaria and Spain. Today our International Division is prepared to take advantage of the opportunities provided by the liberalization and privatization process that will soon take place in the Balkans.

We continued to manage Wind as a financial investment, significantly reducing Enel's injection of cash. We confirm that Wind will achieve financial autonomy in 2004.

We are going to put part of Terna, our high-voltage power transmission company, on the stock market by the end of June 2004. We have reached an agreement for the sale of our real-estate business and we are no longer involved in the management and production of energy from waste. We are also committed to disposing of our water business. All our services companies are now dedicated exclusively to satisfying Enel's requirements and this policy has already led to significant savings for the Group.

Enel's Board of Directors decided to pay shareholders a dividend for 2003 amounting to 0.36 euro per share in accordance with our policy of distributing 60-70% of ordinary profit and 100% of the net capital gains from disposals and extraordinary regulatory items. In addition to the ordinary dividend for 2003, the Board will propose the payment before the end of the year of an additional dividend following the placement of Terna on the stock exchange.

We foresee a positive 2004 and future for Enel.

A stance of sustainable economic growth has always characterized Enel. In recent years the Company has reinforced it, transformed it into a concrete and measurable commitment, and made corporate social responsibility a strongpoint of its future development. Our sustainability is based on a regular check of about 200 numerical and qualitative indicators, 76 of which were

used in establishing the guidelines of the 2004-2008 business plan.

The indicators are economic, environmental and social.

This Report offers a complete reading of our initiatives regarding corporate sustainability and contains useful detail on the sustainability indicators used and regularly checked.

In 2003 we maintained all the commitments we had assumed regarding corporate social responsibility and were rewarded with the Oscar for the best sustainability report of the year as well as reconfirmation of our admission to the FTSE4GOOD ethical index.



## Enel's business activities

	Main business activities	Main companies
<b>Generation and Energy Management</b>	<ul style="list-style-type: none"> <li>&gt; Electricity production</li> <li>&gt; Sale of electricity to large users</li> <li>&gt; Fuel purchasing</li> <li>&gt; Sale of gas to distributors and thermal customers</li> <li>&gt; Commodity-risk management</li> </ul>	Enel Produzione Enel GreenPower Conphoebus Enel Trade Enel Logistica Combustibili
<b>Market</b>	<ul style="list-style-type: none"> <li>&gt; Sale of electricity and gas</li> </ul>	Enel Distribuzione (market area) Enel Energia Enel Sole Enel.si Enel Gas
<b>Infrastructure and Networks</b>	<ul style="list-style-type: none"> <li>&gt; Distribution of electricity and gas</li> </ul>	Enel Distribuzione Enel Distribuzione Gas Deval Camuzzi
<b>International</b>	<ul style="list-style-type: none"> <li>&gt; Electricity production</li> <li>&gt; Sale of electricity</li> </ul>	Viesgo Generación (Spain) Enel Unión Fenosa Renovables (Spain) Maritza (Bulgaria) Enel North America, formerly CHI Energy (North America) Enel Latin America, formerly EGI (Central and South America)  Electra de Viesgo Distribución (Spain) Viesgo Energia (Spain)
<b>Telecommunications</b>	<ul style="list-style-type: none"> <li>&gt; Innovative and integrated fixed-line and mobile telephony and Internet services for businesses and households</li> </ul>	Wind
<b>Business Services and Diversified Activities</b>	<ul style="list-style-type: none"> <li>&gt; Support services for businesses</li> <li>&gt; Diversified activities</li> </ul>	Enel Real Estate Newreal Dalmazia Trieste Enelpower Sfera Enel.it  Enel.Hydro Enel.Factor Enel.Re Enel Net Ape
<b>Transmission Network</b>	<ul style="list-style-type: none"> <li>&gt; Operation, maintenance and development of the national transmission network</li> </ul>	Terna TSN - Novatrans



## Target

## Main 2003 results

<ul style="list-style-type: none"><li>&gt; Reduction of operating costs and improvement of profitability</li><li>&gt; Conversion of several power plants in Italy</li><li>&gt; Increased production from renewable energy sources</li></ul>	<ul style="list-style-type: none"><li>&gt; Third-largest electricity producer in Europe and fifth-largest in the world in terms of installed capacity</li><li>&gt; Good economic performance:<ul style="list-style-type: none"><li>- Revenues: +15,5%</li><li>- Gross operating margin: +50%</li><li>- Operating income: +82,7%</li></ul></li><li>&gt; World's leading producer of electricity from exclusively renewable energy sources:<ul style="list-style-type: none"><li>Geothermal production +15% - 5 new combined-cycle units totaling 1,900 MW</li><li>Natural gas: +34.4% - 5 new wind plants totaling 68 MW</li></ul></li></ul>
<ul style="list-style-type: none"><li>&gt; Cost reduction</li><li>&gt; Improved service quality</li><li>&gt; Selective positioning in the free market</li></ul>	<ul style="list-style-type: none"><li>&gt; Reduction of cost per customer to 136 euros (from 150 in 2002)</li><li>&gt; Reduction of length of interruptions per customer to 88 minutes (from 103 in 2002)</li><li>&gt; Market share of medium business segment: 10%</li></ul>
<ul style="list-style-type: none"><li>&gt; Growth in the gas market</li></ul>	<ul style="list-style-type: none"><li>&gt; Increase in market share in terms of customers and cubic meters of gas sold (about 150,000 customers more with respect to 2002)</li><li>&gt; Reduction of cost per customer to 128 euros (from 132 in 2002)</li></ul>
<ul style="list-style-type: none"><li>&gt; Growth in foreign markets that create value</li></ul>	<ul style="list-style-type: none"><li>&gt; Acquisitions: Maritza East III Power Company AD and Unión Fenosa Energías Especiales</li><li>&gt; The 43-MW El Canada (Guatemala) hydroelectric power plant put in operation</li><li>&gt; Good economic performance:<ul style="list-style-type: none"><li>- Gross operating margin: +9.5%</li><li>- Operating income: +5%</li></ul></li></ul>
<ul style="list-style-type: none"><li>&gt; Greater return on financial investment</li><li>&gt; Second-largest integrated telephone company in Italy</li><li>&gt; Increased traffic</li></ul>	<ul style="list-style-type: none"><li>&gt; 16,4 million customers:<ul style="list-style-type: none"><li>fixed-line: 3.1 million - mobile: 9.9 million - Internet: 3.4 million</li></ul></li><li>&gt; Good economic performance:<ul style="list-style-type: none"><li>- Gross operating margin: +64,5%</li><li>- Operating income: +27%</li></ul></li><li>&gt; Average monthly sales revenue per user: 22.2 euros (from 19.6 euros in 2002)</li></ul>
<ul style="list-style-type: none"><li>&gt; Strategic refocusing according to criteria of corporate services and importance to core business</li></ul>	<ul style="list-style-type: none"><li>&gt; Sale of a significant part of real estate assets and management of energy from waste. Commitment to also sell the water business.</li></ul>
<ul style="list-style-type: none"><li>&gt; Cost reduction</li><li>&gt; Improvement of quality</li><li>&gt; Optimization of capital expenditure on renewal</li></ul>	<ul style="list-style-type: none"><li>&gt; Reduction of plant depreciation period and consequent decrease of 104 million euros in economic and tax-based depreciation</li><li>&gt; Acquisition of Enel Power's Brazilian plants</li></ul>

## Corporate Governance

- > Code of Ethics
- > Participation in the Global Compact
- > Model 231/01
- > Admission to sustainability indices

### Code of Ethics

The general principles to which Enel refers in conducting its business activities are:

- > Impartiality
- > Honesty
- > Correct behavior in case of potential conflicts of interest
- > Confidentiality
- > Relations with shareholders
- > Creation of value for shareholders
- > Value of human resources
- > Equitable authority
- > Well-being of the individual
- > Transparent and complete information
- > Diligence and precision in the fulfillment of tasks and contracts
- > Quality of its services and products
- > Fair competition
- > Responsibility towards society
- > Environmental protection
- > Fairness and equity in the management and renegotiation of contracts

The Code of Ethics establishes, for each category of stakeholders, the guidelines and the rules to observe in order to enact the general principles and prevent the risk of unethical behavior, as well as the supervisory mechanisms to ensure that it is implemented.

During 2003, about a year from when it went into effect, the Internal Audit Committee – a body that was constituted within Enel SpA's Board of Directors – carried out the first re-examination of the original text.

The main amendments made regard the following issues:

- > corporate governance and, with regard to it, the restrictions of compatibility/incompatibility of the activity of external auditor of financial statements with that of consultant;
- > the choice of suppliers; reaffirming that reciprocal fairness, transparency and cooperation are indispensable in purchasing processes;
- > the foundation of Enel Cuore ONLUS to make philanthropic contributions in favor of children and the elderly and in any case the disadvantaged;
- > the institution within the Communication Department of Enel SpA of a Corporate Social Responsibility Unit dedicated to ensuring the dissemination of Enel's social responsibility.

During 2003 the Auditing Department examined all reports received with the help of the departments concerned by the problems referred to in the reports.

The stakeholders who turned to the channel of the Code of Ethics during 2003 were customers, persons who work at the Company, and local communities. Of the total number of reports received in 2003 (21), 36% involved violations, with regard to which appropriate action was taken.

The Code of Ethics can be consulted and downloaded at:

[http://www.enel.it/sostenibilita\\_eng/etico.htm](http://www.enel.it/sostenibilita_eng/etico.htm)

## Participation in the Global Compact

The year 2003 saw the continuation of the plan of action sponsored by Enel to support corporate social responsibility. Among the initiatives undertaken is the Company's participation in the Global Compact, which was formalized in February 2004.

The Global Compact is a program begun by the U.N. in July 2000 upon the direct initiative of Secretary General Kofi Annan. It aims to involve the business world in a new kind of cooperation with the United Nations through their acceptance of nine universal principles in the areas of human rights, the defense of labor, and environmental protection.

In the field of human rights:

- > support and respect human rights within the firm's sphere of influence;
- > ensure that the firm is not, even indirectly, involved in violations of human rights.

In the field of the defense of labor:

- > ensure workers' freedom to associate and acknowledge the right of collective bargaining;
- > ensure that the firm does not employ forced or obligatory labor;
- > refrain from employing child labor;
- > eliminate every kind of discrimination in hiring and firing policies.

In the field of environmental protection:

- > adopt a preventive approach to environmental challenges;
- > sponsor initiatives for greater environmental responsibility;
- > encourage the development and dissemination of technologies that do not damage the environment.

Participants in the program are those companies that most distinguish themselves by their strong sense of social responsibility and that aspire to a sustainable global development that takes into account the interests and concerns of all their stakeholders.

Even though the program is a relatively recent initiative, as of now (January 2004) 1,333 companies and organizations from all over the world had formally committed themselves to the Global Compact.

## 231/01 Model

In keeping with the commitments regarding its stakeholders declared and assumed with the Code of Ethics, in 2002 Enel was the first Italian company to endow itself with Model of organization and management provided for by Legislative Decree n. 231 of June 8, 2001, which introduced the administrative – but actually criminal – liability of companies for crimes against the Civil Service (bribery, extortion, etc.) and corporate crimes (for example, false accounting) committed by the directors, executives or employees in the interest or to the advantage of the companies themselves. The Model adopted by Enel is consistent both with the provisions of the guidelines established on this subject by industry associations and with best practice in the United States. It constitutes a further step towards strictness, transparency and a sense of responsibility in both internal relations and those with the outside world, while at the same time providing shareholders with the best guarantee of efficient and fair management.

Model 231/01 consists of a general part – which describes, among other things, the content of the Decree, the objectives of the Model and how it works, the duties of the Compliance Officer (whose job is to supervise the functioning and observance of the Model), the flow of information and the penalties – and single special parts concerning the different kinds of crime provided for by the law. In addition to special part “A” – regarding crimes against the Civil Service – which was approved in July 2002 together with the general part, on June 11, 2003 the Board of Directors of Enel SpA resolved to adopt special part “B”, which concerns the corporate crimes specified in article 25-ter of the Decree.

The Model can be consulted and downloaded at the site: [http://www.enel.it/gruppo/gr\\_modello.htm](http://www.enel.it/gruppo/gr_modello.htm). To ensure that the Model is actually implemented, Enel's auditing departments have sponsored meetings where the Model is explained to Enel's first and second lines. Specific audits have also been carried out at Enel companies in order to see if such procedures comply with the internal auditing system provided for by the Model, and where necessary a plan has been drawn up for adjusting and strengthening current internal procedures with the intention of improving the overall existing procedures.

In order to improve dissemination of the content of Model 231/01 and encourage its application, in addition to the training sessions dedicated to the those holding the positions most involved in its application, during 2003 a training course was devised for distribution to Enel personnel in the first months of 2004.

## Investigation of Enelpower

In February 2003 Enel learned of a legal proceeding started by the public prosecutor's office in Milan against the former Chief Executive Officer of Enelpower and others under investigation for the crimes referred to in articles 416 (criminal conspiracy), 319 (bribery for an action contrary to the duties of office), and 319bis (aggravating

circumstances). The proceeding concerns:

- > three job orders awarded Enelpower in Middle East Asia, including the underlying sales contracts
- > several supply, engineering and services contracts entered into with suppliers.

Subsequently, from the developments of the investigation and the evidence acquired it emerged that those under investigation were charged with having illegally enriched themselves to the detriment of Enelpower by obtaining, through the contracts in question, a kickback on the amounts paid for the aforesaid contracts and thus misappropriating Enelpower funds. With regard to the foregoing, Enel SpA took legal action and other steps to safeguard the interests of the Company and its shareholders, including legal action against those under investigation. The aforesaid suits extend de jure with regard to all those who were accomplices in committing the crimes in question. Meanwhile, Enelpower took specific measures with regard to the suppliers involved in the investigation in progress, sending them letters of protest. Subsequently the investigation revealed the involvement of the Chairman of Enel Produzione SpA, who – after voluntarily testifying in the office of the public prosecutor in Milan – resigned on July 11, 2003 from the Group and the offices held in it.

With regard to these further developments of the proceeding, Enel SpA thus took the most appropriate legal actions in the interest of the Company and the Group. Enel Produzione SpA. Took similar actions.

Following negotiations among the parties, between December 2 and December 4, 2003 a composition of a settlement was agreed to by Enel SpA, Enelpower SpA and Enel Produzione SpA, on the one hand, and Siemens AG – also on behalf of Siemens SpA – on the other with regard to the events concerned by the criminal

proceeding. On the basis of the agreement, the Enel Group obtained a compensation of 20 million euros for damage to its image (from which Enel SpA and Enelpower SpA benefited equally), as well as an adjustment and novation of the contracts existing between Siemens SpA and Enel Produzione SpA, which will enable the latter to obtain better conditions on future supplies and services.

In addition, on February 19, 2004 Enelpower SpA, Enel Produzione SpA and Enel SpA signed a compromise agreement with Alstom Holdings SpA, Alstom Power Inc. and Alstom Power Italia SpA providing compensation for the damaged caused to the image of the Enel Group companies in consequence of the investigation started by the office of the public prosecutor in Milan regarding the supply order for the Sulcis project. As a result of this agreement Alstom issued a credit slip for 2.5 million euros, as well as an additional credit slip for 2 million euros to be used for future purchases by any company of the Enel Group from any company of the Alstom Group.

On the basis of the evidence mentioned above, no situations are foreseen than could negatively influence the financial position of Enel SpA and the Group as of December 31, 2003.

For further details, see the Enel's Consolidated Financial Statements as of and for the year ended December 31, 2003 ([www.enel.it](http://www.enel.it)).

## Admission to the sustainability indices

### The Socially Responsible Index of E. Capital Partners

In November 2002, Enel successfully underwent ethical screening, a process used by E. Capital Partners – an independent financial advisor that provides socially responsible benchmarks personalized by geographical area and by financial instruments, shares or bonds – to analyze all listed companies on the basis of their social and environmental responsibility and was admitted to the socially responsible share indices, European and global, constructed by the same E. Capital Partners:

- > the EURO Ethical Index, created in May 2000, indicates the 150 best in class among the most highly capitalized European companies, excluding those that do not pass the test of ethical screening;
- > the GLOBAL Ethical Index, created in January 2002, consists of the securities of 300 best companies in the world.

In 2003, Enel's inclusion in the two socially responsible share indices was confirmed, thanks to a performance rating (about 80%) that was well above the average of the companies considered in the three areas investigated: economic, environmental and social.

### The FTSE4GOOD of the Financial Times Stock Exchange

Already present in the FTSE4GOOD GLOBAL 100 – the stock-market index of the Financial Times, which consists of the 100 leading companies in the world in terms of market capitalization that distinguish themselves by the results achieved and the commitments assumed with regard to sustainable economic development – on September 22, 2003 Enel was also admitted to the prestigious FTSE4GOOD EUROPE 50, an index that consists of the 50 leading European companies that combine business with the plans and principles of social and environmental sustainability. Enel is the only utility in this index and in 2003 was admitted for the second time to the prestigious British stock-market index of sustainability.

### The Dow Jones Sustainability Index

Electric Utilities Sector: DJSI Members 2003/2004	Economic			Environmental			Social		
	P	A	B	P	A	B	P	A	B
Transalta Corp.	■	■	■	■	■	■	■	■	■
Cia Energetica Minas Gerais (CEMIG)	■	■	■	■	■	■	■	■	■
CINergy Corp.	■	■	■	■	■	■	■	■	■
RWE AG	■	■	■	■	■	■	■	■	■
Entergy Corp.	■	■	■	■	■	■	■	■	■
Fortum Oyj	■	■	■	■	■	■	■	■	■
Grupo Iberdrola	■	■	■	■	■	■	■	■	■
Endesa SA	■	■	■	■	■	■	■	■	■
NISource Inc.	■	■	■	■	■	■	■	■	■
National Grid Transco plc	■	■	■	■	■	■	■	■	■
Suez	■	■	■	■	■	■	■	■	■
<b>Next company in line for selection</b>									
Enel	■	■	■	■	■	■	■	■	■

P = poor - A = average - B = best

In 2003, Enel was successfully screened for the Dow Jones Sustainability Index (DJSI) and is the next company in line for selection.

### The Advanced Sustainable Performance Index

In September 2003, Enel was admitted to the Advanced Sustainable Performance Index on the basis of the evaluations made by Vigeo, a French rating agency. Among Vigeo's founders mention should be made of Carrefour, CISL, Crédit Lyonnais, Danone, Suez, Air France, Alcatel, Edf, Renault, Vivendi Environment, Sanpaolo Imi SpA and France Telecom.

## 2003 Commitments

### Economic responsibility

- > Integrate Enel's CSR into its Business Plan.
- > Develop processes that ensure the integration of business objectives with respect for the environment and social development in all company activities.
- > Ensure the creation of value for shareholders.
- > Improve the quality of cooperation with suppliers.

### Environmental responsibility

- > Extend the application of environmental management systems.
- > Reduce environmental impact.
- > Adopt a fuel mix that ensures the cost-effectiveness and security of fuel purchases, contributes to reducing the cost of electricity production, and ensures effective environmental protection

### Social responsibility

- > Increase the involvement of stakeholders in environmental and social issues.
- > Concentrate contributions to communities on actions with great social impact.
- > Ensure that human resources have opportunities for professional development.
- > Strengthen the systems that protect the security and health of human resources.

## 2003 results

### Economic responsibility

- > The CSR Department was instituted and the CSR Compliance Officer appointed. The mechanisms are in operation.
- > All the specific control mechanisms regarding the management and evaluation of environmental data are in operation for all business activities.
- > Dissemination of risk- and crisis-management procedures.
- > Creation of a centralized purchasing portal operating with the maximum simplification and transparency.

### Environmental responsibility

- > ISO 14001 certification for 51% of the installed capacity of power plants.
- > Reduced total emissions of sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>) and particulate.
- > Only very-low-sulfur fuel oil used.
- > Energy efficiency of generating plants improved.

### Social responsibility

- > Together with environmental associations, plans were made to make an ecological reserve accessible to the disabled.
- > A not-for-profit association, Enel Cuore Onlus, was formed with contributions from the Enel companies for purposes regarding exclusive social solidarity, public health matters, charity, amateur sports and defense of the civil rights of disadvantaged individuals.
- > Growth paths by cross-company professional families and professional communities were created for our human resources and knowledge-management systems were designed.

## Integration of CSR in corporate strategy

### > Enel's indicators of sustainability

Enel's CSR is integrated in the Business Plan, which lays out the path of Enel's economic growth within a strategic context of environmental protection and social development.

In order to make it possible to create a planning and control process combining economic, environmental and social data (triple bottom line), Enel set up a reporting system which, every three months and beginning with the recording and processing of key performance indicators, is able to:

- > describe the main actions being undertaken for improvements;
- > highlight deviations from corporate objectives so that corrective action can be promptly taken.

The gathering and processing of both accounting and non-accounting data regarding key performance indicators (KPI) require the involvement of both Enel SpA, for Group issues, and divisions and companies for specific business issues.

Within the different corporate structures or professional families there are CSR reporters, data managers, who are in charge of gathering, verifying and processing the data for which they are responsible every three months.

Consolidation of the results takes place under the supervision of a specific area of Enel SpA's Planning and Control unit, which is in charge of coordinating the reporting process and, together with the CSR unit, preparing the qualitative parts and comments accompanying the different kinds of results. This system contributes to the achievement of the objectives of corporate social responsibility integrated in the long-term growth strategies and is functional for the preparation of the annual Sustainability Report.

The key performance indicators recorded at Enel are listed below.

## Enel's indicators of sustainability

### Economic responsibility

#### LENDERS

**Total debt**  
Total debt (million €)  
Cash-flow index (%)  
Ratio debt/shareholders' equity (no.)

**Rating**  
Assessment

**Loans**  
Total loans (million €)  
**Loans granted by the EIB and others**  
Total loans (million €)  
Index of concessionary borrowing (%)

#### SHAREHOLDERS

**Socially responsible investors (SRI)**  
Share of floating securities held by socially responsible investment funds (%)

**Share performance**  
Position in the Dow Jones

sustainability index

**Shareholder return**  
Earnings per share (€/share)  
Cash flow per share (€/share)

**Managerial performance**  
Revenue (million €)  
Gross operating margin (million €)  
Net income (million €)  
Capital expenditure (%)

#### ELECTRICITY AND GAS MARKET

**Electricity portfolio**  
Total volume (TWh)  
Customers (millions)  
Customers acquired from other suppliers (%)  
Market share (%)

**Electricity sales structure**  
Contact Points indirect channel (no.)

Weight of indirect channel (thousands)  
Productivity of portal (thousands)

#### Commercial quality of electricity service

Average waiting time for toll-free number to answer (seconds)  
Service level (%)

**Technical quality of electricity**  
Index of service continuity (minutes)  
Capital expenditure on quality (million €)

#### Quality perceived by electricity customers

Customer satisfaction index (no.)

#### Gas portfolio

Total volume (million m<sup>3</sup>)  
Customers (thousands)  
Customers acquired from other suppliers (%)



Market share (%)  
**Gas sales structure**  
 Contact Points indirect channel (no.)  
**Commercial quality of gas service**  
 Average waiting time for toll-free number to answer (seconds)  
 Service level (%)  
**Quality perceived by gas customers**  
 Customer satisfaction index (no.)

**TELECOMMUNICATIONS MARKET Portfolio**  
 Total revenue (million €)  
 Total fixed-line volume (million minutes)  
 Total mobile volume (million minutes)  
 Fixed-line customers (millions)  
 Mobile customers (millions)  
 Internet customers (millions)

Convergent customers (thousands)  
 Customers from other companies (thousands)  
 Customers acquired from other fixed-line companies (%)  
 Customers acquired from other mobile companies (%)  
 Fixed-line market share (%)  
 Mobile market share (%)  
 Internet market share (%)  
**Value for TLC customers**  
 Average revenue from fixed-line customers (thousand €)  
 Average revenue from mobile customers (thousand €)  
**TLC sales structure**  
 Mondo Wind (no.)  
 Other, multi-brand sales outlets (no.)

**Commercial quality of TLC service**  
 Service level (%)  
 Effectiveness of toll-free number (%)  
**Technical quality of TLC network**  
 Network coverage (%)  
 Calls without interrupted connection (%)  
**Quality perceived by TLC customers (no.)**  
 Customer satisfaction index (no.)

**SUPPLIERS Category**  
 Number of suppliers (no.)  
 Geographical distribution (%)  
**Supplies and fuels**  
 Fuel purchases (million €)  
**Management instruments**  
 On-line tenders (%)

**Environmental responsibility**

**ENVIRONMENT-MANAGEMENT SYSTEM**  
**Environmental certification**  
 Degree of certification coverage (%)  
**Research and innovation**  
 Expenditure on research (million €)  
 Persons working on research (no.)  
**Environmental expenditure**  
 Environmental expenditure (million €)  
**Safety systems**  
 Inspections on ships transporting oil (%)  
 Inspections on ships transporting orimulsion (%)  
 Inspections on ships transporting coal (%)

**ENERGY EFFICIENCY OF GENERATING PLANT**  
**Generating plant in Italy**  
 Net efficient power: thermal (MW)  
 Net efficient power: renewable (MW)  
 Combined-cycle (CCGT) share (%)  
 Wind power (MW)  
 Net thermal production (TWh)  
 Net renewable production (TWh)  
**Fuel mix**  
 Fuel consumption (million toe)  
 Gas share (%)  
**Productivity**  
 Net yield: thermal (%)  
 Unavailable for call into service (%)  
 Variable cost (€/MWh)  
**Green energy**  
 Production green certificates (TWh)  
 Requirement coverage of green certificates (%)

**Investment**  
 Investment for efficiency (million €)  
 Investment in renewable sources (million €)  
**NETWORK ENERGY EFFICIENCY**  
**Electricity distribution**  
 Transmission-network availability (%)  
 Construction/repowering MV/LV lines (km)  
**Gas distribution**  
 Gas leaks (no.)  
 Network check (%)  
 Remote-control substations (no.)

**ENERGY CONSERVATION**  
 Promotion of energy conservation  
 Micro-generation (kW)  
 Electronic meters installed (millions)

**ENVIRONMENTAL PERFORMANCE**  
**Polluting emissions**  
 Net specific emissions of SO<sub>2</sub> (grams/kWh)  
 Net specific emissions of NO<sub>x</sub> (grams/kWh)  
 Net specific emissions of H<sub>2</sub>S (grams/kWh)  
 Specific emissions of particulates (grams/kWh)  
**Greenhouse-gas emissions**  
 Greenhouse-gas emissions from thermal production (million tons)  
 Other greenhouse-gas emissions (thousand tons CO<sub>2</sub> equivalent)  
**Waste management**  
 Waste produced (thousand tons)

Non-hazardous waste produced (thousand tons)  
 Hazardous special waste produced (thousand tons)  
 PCB disposal (no.)  
 Waste recovery (%)  
**Impact on landscape/environment**  
 Index of LV/MV cabling (%)  
 Network in underground and insulated overhead cable (thousand km)  
 Telecommunications installations with low visual impact (%)  
 Rebuilt telecommunications installations (%)

**GENERATING PLANT ABROAD**  
**Generating plant**  
 Efficient power: thermal (MW)  
 Efficient power: renewable (MW)  
 Net thermal production (TWh)  
 Net renewable production (TWh)  
**Fuel mix**  
 Fuel consumption (Mtoe)  
 Gas share (%)  
**Productivity**  
 Thermal-plant yield (%)  
**Investment**  
 Investment for efficiency (million €)  
 Investment in renewable sources (million €)  
**Polluting emissions**  
 Specific emissions of SO<sub>2</sub> (grams/kWh)  
 Specific emissions of NO<sub>x</sub> (grams/kWh)  
 Specific emissions of particulates (grams/kWh)  
 Specific emissions of CO<sub>2</sub> (grams/kWh)

Social responsibility

**NUMBER AND COMPOSITION OF HUMAN RESOURCES**

**Number**

Human resources (no.)  
Breakdown by geographical area (%)

**Changes in number**

New hires (no.)  
Terminations (no.)  
Induced terminations (%)  
Turnover of human resources (%)  
Candidates interviewed per hire (no.)

**PROFESSIONAL SATISFACTION AND DEVELOPMENT**

**Pay**

Average cost per person (thousand €)  
Share of variable pay (%)  
Human resources part of whose pay is tied to MBO objectives (%)

**Development**

Use of capability assessment (%)

**Training**

Hours of training (thousands)  
Hours of training per person (no.)  
Cost of training (thousand €)  
Share of cost of training (%)  
Share of distance learning (%)  
Productivity of the distance-learning channel (%)

**Knowledge management**

Dissemination of corporate intranet (%)  
Development of knowledge management (%)  
Knowledge-management projects (no.)  
Expenditure for knowledge management (million €)  
Index of knowledge-management approval (min.)

**Dissemination of sustainability**

Persons involved in learning about sustainability (no.)

**EQUAL OPPORTUNITY AND UNION RELATIONS**

**Equal opportunity**

Position levels of women working at Enel (%)

**ON-THE-JOB SAFETY**

**On-the-job injuries to human resources**

Frequency of injuries (no.)

**Certification**

Expenditure on safety per person (thousand €)

**INITIATIVES IN FAVOR OF COMMUNITIES**

**Relations with interest groups**

Associations with which regular relations are maintained (no.)  
Associations involved in projects with Enel (no.)

Projects in progress and completed with associations (no.)

**Approach according to the London Benchmarking Group model**

Largess with social impact as % of earnings before taxes (%)  
Largess (thousand €)  
Investment in communities (thousand €)  
Business undertakings with social impact (thousand €)  
Socially sustainable business undertakings (thousand €)

## Commitments and challenges for the future

- > Economic responsibility
- > Environmental responsibility
- > Social responsibility

### Economic responsibility

**Shareholder value.** Enel wants to continue to maximize the creation of value for its shareholders. On the basis of its 2003 results, in 2004 Enel will pay its shareholders a dividend amounting to 0.36 euro per share, the same as the one paid in 2003. In addition, following the listing of Terna, we expect to pay an extraordinary dividend by the end of 2004. Enel is looking attentively at growth opportunities in those areas and business activities that create value and satisfy the rigorous investment criteria that the Company has established for itself and that enable it to maintain a solid "A" credit rating. On the basis of estimates of the growth of its operating and financial results (and thus its 2004 results) and taking into account the clarity deriving from the approval of the new rates system for the period 2004-2007, Enel expects to pay a dividend of no less than 0.36 euro per share also in 2005.

**Customer service.** The quality of the services provided to customers has improved with respect to 2002. At the end of 2003 the Authority awarded Enel Distribuzione 115 million euros for reducing the average annual interruption of the service per customer to 103 minutes in 2002. In 2003 this figure decreased to 88 minutes and we expect to receive an award for quality of more than 150 million euros. By investing in our power distribution networks and managing the material used in our plants even better, we are committing ourselves to providing a service equal to the best in Europe.

**Reporting systems.** In order to improve our governance of sustainability, we are aligning our corporate systems for collecting and checking data with our CSR management system. The Company's governing bodies are already provided with quarterly summaries regarding economic, environmental and social aspects that highlight the objectives achieved and the problems still to be resolved. We are planning to create an IT platform for collecting CSR data. Our objective is an account with a triple bottom line.

**Generation and distribution.** Electricity production has achieved all the objectives set for 2003. Specifically, production from gas increased, less fuel oil was used, and several generating plants were converted to the use of cheaper and more efficient fuels. Enel plans to reduce costs connected with fuel purchasing and – through the constant improvement of processes – also those regarding operating activities and maintenance. As far as the distribution and sale of electricity and gas are concerned, Enel will continue to improve the quality of its customer service and to reduce its cost per customer, which in 2005 will fall to 127 euros against 150 euros in 2002.

## Environmental responsibility

**Environmental management systems.** Enel will continue the process of applying environmental management systems that meet the international ISO 14001 and EMAS standards. As of the end of 2003 51% of the Company's installed capacity was certified and we plan to request EMAS registration of at least 90% of our plants by the end of 2006.

**Emissions.** In 2003 the emissions of sulfur dioxide, nitrogen oxides and particulates were reduced. Thanks to the use of advanced combustion systems, the improvement of abatement systems and the use of superior fuels it will be possible to considerably reduce the polluting emissions deriving from the combustion that takes place in the generation of electricity.

## Social responsibility

**Corporate climate.** Enel wants a progressive and constant improvement in the corporate climate deriving not only from the effectiveness of industrial relations, but also from actions creating consensus on management plans.

**Communities.** Enel's objective is to strengthen its ties with local communities by using its reputation and the transparency of the data and information it transmits, as well as the economic, environmental and social quality of its projects; in particular, by emphasizing the positive effects of the processes – currently in progress – of plant conversion, demonstrating the economic, environmental and social advantages for the communities in which they take place. Furthermore, through campaigns promoting the proper and efficient use of energy it means to also offer citizens a concrete advantage in economic terms in addition to safeguarding the environment.

**Human resources.** Enel is more and more committed to eliminating every kind of discrimination in the business activities in which it is involved, both in Italy and abroad, endeavoring to disseminate the principles of social responsibility and corporate ethics with regard to all its stakeholders. The professional enhancement of its human resources will still be a primary objective and training activities will be increased. In 2003 the average number of hours of training per person rose, thanks to increases in both distance learning and traditional methods.

**Health and safety.** In addition to continuing its effort to eliminate injuries to its human resources, Enel will be even more engaged in sponsoring educational activities concerning on-the-job safety, including with regard to firms operating on its behalf.

**Purchasing and suppliers.** Enel will continue its process of qualifying its suppliers and gradually inserting ethical clauses in contracts entered into in so-called "countries at risk" in order to safeguard the principles that inspire our business activities.





## Economic responsibility

- > Added value created by Enel
- > Shareholders
- > Lenders
- > Human resources
- > Customers
- > Suppliers

## Added value created by Enel

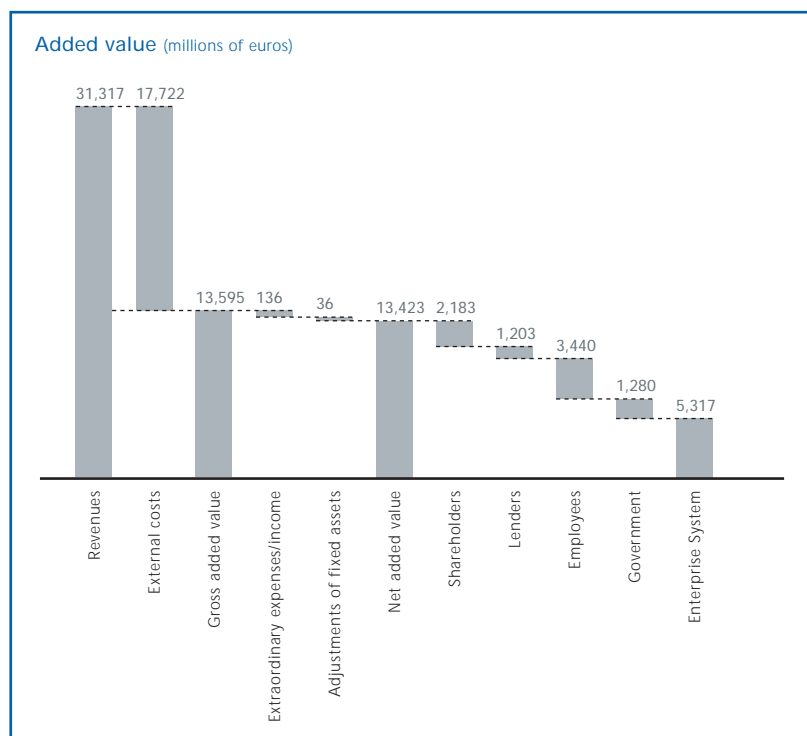
Enel contributes to the economic growth of the communities in which it operates, generating wealth and distributing it to its stakeholders.

The Enterprise System produces added value, which is wealth measured by the difference between revenues generated and external costs incurred during the year.

In 2003, Enel created net added value totaling 13,423 million euros for its stakeholders.

About 60% of the wealth created by Enel was distributed to its principal stakeholders: shareholders (private and public), lenders, employees, the government (as a complex of bodies and institutions) and communities, while the resources made available to the Enterprise System (about 40% of the net added value) amounted to 5,317 million euros.

As far as the distribution of this wealth to the stakeholders is concerned, the men and women who work at Enel were paid a total of 3,444 million euros, lenders 1,203 million euros. Shareholders were paid a dividend amounting to a total of 2,183 million euros (on the basis of a dividend equal to that of 2002 and paid in 2003). The government was paid taxes amounting to 1,280 million euros.



### Added value: comparison with 2002

Millions of euros

	2002	2003
Revenue	29,977	31,317
External costs	18,222	17,722
Gross added value	11,755	13,595
Extraordinary expenses/income	-736	136
Adjustments of fixed assets	24	36
Net added value	12,467	13,423
Shareholders	2,183	2,183
Lenders	1,237	1,203
Human resources	3,589	3,440
Government	913	1,280
Enterprise System	4,545	5,317



## Shareholders

- > Financial performance of Enel shares
- > Composition of share-capital ownership
- > Relations with shareholders
- > Shareholder protection

### Financial performance of Enel shares

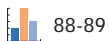


Enel SpA has been listed on Borsa Italiana and on the New York Stock Exchange since November 1999. Enel shares are included in the main industry indices at the European and world levels.

### Quality of investment in Enel shares

During 2003 international stock markets experienced a gradual rise in prices connected with the improvement in the international climate and the emergence of several signals of economic recovery that, in the second half of the year, fed expectations of more sustained economic growth. The Italian stock market also recorded an improvement in 2003, with the MIB 30 index rising by about 12% (December 30, 2002 – December 30, 2003). Precisely on the MIB 30 Enel shares appreciated by about 9%, with the maximum of 6.02 euros recorded on June 4, 2003. A daily average of about 25 million shares was exchanged during 2003.

### Composition of share-capital ownership



Institutional shareholders increased their ownership of floating stock from 31.6% in 2002 to 44.1% in 2003, with those from the UK and the rest of Europe recording the largest rise. During 2003 the weight of socially responsible investors increased in Enel's share capital. At the end of 2003 the value of their equity investment amounts to about 16.2% of the share capital held by institutional investors.

### Relations with shareholders

#### Proactive and transparent communication with institutional and individual investors



In order to integrate CSR into investor relations, plans have been made to dedicate part of Enel's financial communication in 2004 to the discussion of issues related such responsibility. The Investor Relations section of Enel's website is another important communication channel, allowing all investors to consult data and documents of general interest regarding Enel's Board of Directors and Board of Statutory

Auditors, the professional profiles of their members, the corporate bylaws and the regulations of shareholders' meetings, as well as the periodic updates regarding the development of the system of corporate governance adopted for the Group. In an investigation carried out in September 2003 by "Milano Finanza" on the quality of the investor relations of the MIB 30 companies, Enel was reported as one of the three best companies in providing prompt and complete information, explanations and documentation to individual investors.

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#### 2004 calendar of corporate financial events

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March	Consolidated Financial Statements of the Enel Group: presentation to analysts
May	Quarterly Report – Conference call – Shareholders' Meeting
June	Payment of the dividend to shareholders
September	Half-year Report: presentation to analysts
November	Quarterly Report – Conference call with financial analysts

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## Shareholder protection

### An advanced system of corporate governance

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In addition to the instruments that have already been discussed – see the section dedicated to corporate governance with reference to the Code of Ethics, Model 231/01, the Company's participation in the Global Compact and its admittance to the indices of sustainability – Enel's system of corporate governance is characterized by its total incorporation of the principles of the "Preda Code" and, in general, of international best practice.

An investigation carried out in January 2004 by "Milano Finanza" showed that Enel was the MIB 30 company endowed with the most complete and trustworthy system of corporate governance. A central role in Enel's system of corporate governance is assigned to the Board of Directors, which is entrusted with the responsibility of deciding the Company's strategic and organizational guidelines, as well as with ensuring the audits necessary for monitoring corporate performance.

The Board of Directors is appointed through a procedure based on strict criteria of transparency. With the exception of the Chief Executive Officer, it consists entirely of non-executive members – ones without operating powers and/or managerial positions in the Company – so as to ensure, by their number and authoritativeness, that their opinions have significant influence in the Board's decisions. All the non-executive members of the Board of Directors qualify as independent Directors. The activities of the Board of Directors are coordinated by the Chairman, who also has the duty of ensuring that the Board's duties are performed in accordance with proper corporate-governance practices. Both the Board of Directors

and the Board of Statutory Auditors receive periodical and exhaustive reports from the Chief Executive Officer on the activities the latter carries out in the exercise of the powers vested in him. The Compensation and Internal Audit Committees perform special duties within the Board of Directors. They are composed entirely of independent, non-executive Directors and were instituted to deal with issues that are particularly sensitive and involve potential conflicts of interest, such as the one regarding the assignments and remuneration of the external auditor. The structure of the Board of Directors and its committees during 2003 is summarized in the table on the next page.

Enel carries out any transactions with related parties according to adequate criteria of procedural and substantive fairness. For quite some time Enel has had a special internal auditing system, whose purpose is to:

- > ascertain the effectiveness, efficiency and cost-effectiveness of the various corporate processes;
- > ensure the reliability and fairness of the Company's accounts and the safeguard of its assets;
- > ensure that operating activities comply with both internal and external regulations and corporate directives and guidelines aimed at ensuring sound and efficient management.

Enel also adopted a few years ago special regulations for the management and processing of confidential information within the Company, which also include the procedures for transmitting

documents and information to outsiders, with special reference to sensitive information that could influence the price of Enel shares on the stock market, as well as additional regulations that govern the proceedings of shareholders' meetings.

A recent addition to these instruments is the

Dealing Code, a code of behavior for the management, processing and communication to the market of information regarding transactions involving financial instruments issued by Enel carried out by persons who have significant decision-making powers within the Company as well as access to sensitive information.

## Structure of Enel's Board of Directors and its committees

### Board of Directors

Office	Member	Independent	Number of other positions***	Member of Internal Audit Committee	Member of Compensation Committee	Number of meetings held in 2003	
Chairman	Piero Gnudi	●	4	●		Board of Directors	19
Chief Executive Officer						Internal Audit Committee	13
General Manager	Paolo Scaroni*		3			Compensation Committee	19
Director	Mauro Miccio	●	1		●		
Director	Franco Morganti**	●	1	●			
Director	Fernando Napolitano	●	2		●		
Director	Francesco Taranto**	●	4		●		
Director	Gianfranco Tosi	●	-	●			

\* Member with executive powers.

\*\* Member designated by slates of minority shareholders.

\*\*\* Number of directorships or memberships on the boards of statutory auditors held by the person concerned in other companies listed on regulated stock exchanges (including foreign ones) and in banks, finance or insurance companies or significantly large companies.

*Quorum* required for the presentation of slates for the election of the Board of Directors: 1% of the share capital.

### Instruments for the management and prevention of risks

 48

To protect the value of its shareholders' investments, Enel has developed instruments for identifying, preventing and managing the risks connected with events that can damage its resources and critical processes, strategic information and knowledge, operating continuity,

the quality of the service it provides its customers, and its corporate image. In addition, the Company has established a specific procedure for preventing and handling critical and dangerous events, which classifies them by type, the appropriate behavior, and the related responsibility for taking

measures. Enel protects its businesses of generating electricity and selling electricity and gas (hereinafter called "commodities") from changes in fuel prices and the euro/dollar exchange rate. The objective of Enel's commodity-risk management is to stabilize the margins of the

businesses of generation and commodity selling by reducing or eliminating the risks connected with the volatility of commodity prices by using financial hedge instruments (derivatives), without which Enel's economic results would be subject to potential instability.

#### **Blackouts and planned interruptions**

During the night of September 28, 2003 the sudden collapse of international interconnections isolated the Italian electricity network and determined a blackout throughout the country except for Sardinia. In so far as they were concerned, the companies of the Enel Group restored the network and started up the plants again extremely quickly considering the seriousness and extent of the event.

The electricity service was restored in a few hours in much of the center and north of Italy and by the end the same day service had been restored throughout the country.

In order to help customers understand what was happening, detailed information was provided both through the press and on the [www.enel.it](http://www.enel.it)

website regarding the regions and cities affected by the event.

Previously, on June 26, 2003, the simultaneous occurrence of anomalous weather conditions and the consequent leap in electricity demand made it necessary to resort to a plan of scheduled interruptions. Thus all distributors operating in Italy, including Enel Distribuzione, were ordered by the Operator of the National Transmission Network (GRTN) to put into effect the procedure of rotating preventive interruptions of end users in order to adjust electricity demand to the supply. Enel has in any case promoted initiatives to increase the security of the national network and has planned investment to improve the security of its own network.

## Electricity exchange

With a guide-line issued on July 31, 2003 the Ministry of Productive Activities formally initiated the process for putting the Electricity Exchange in operation as from January 1, 2004. The objective of the Electricity Exchange is ensure that the demand and supply of electricity are in equilibrium and all producers, eligible customers and the Single Buyer will have access to it to freely choose their electricity supplier.

The system consists of a market:

- > for electricity, managed by the Market Manager, which includes the " day-before market" , where by a certain time, every day, all producers inform the Manager of how much electricity each one is willing to supply the next day and at what price. At the same time, the GRTN tells the Market Manager how much demand is expected for the following day. At this point the Market Manager compares these two data and establishes the price at which the demand forecast for the next day can be satisfied by the planned supply. If there are offers to supply electricity at prices exceeding the equilibrium threshold, such offers will not be considered;
- > for adjustment, where each producer can revise his offers in order to optimize his business. When these first two phases are over, the Market Manager presents the production plan for the next day, with the related curve and prices;
- > for the dispatching service, managed by the GRTN, which acts as a reserve to insure the national electricity system against contingencies.

## Lenders

- > Volume and uses of debt
- > Credit rating
- > Bonds
- > Concessionary loans

### Volume and uses of debt

 48  90

Enel's net debt at the end of 2003 amounts to 24,174 million euros. The Company's objective is to maintain its actual rating in the future.

### Credit rating

Enel has an official rating established by the leading specialized rating agencies and intends to maintain a very high one, at least in the "strong A" bracket. That should continue to allow to it be able to access the financial market for significant amounts and at extremely competitive conditions. Enel mainly continuous relations with Standard & Poor's and Moody's.

	Long-term	Short-term	Outlook
S&P	A+	A-1	Negative
Moody's	A1	P-1	Negative

### Bonds

There are currently 6 bonds listed and issued to the public in circulation, amounting to a total of 6,250 million euros, the details of which are shown in the table. Also outstanding are other bond loans issued in the form of

#### Bonds issued by Enel

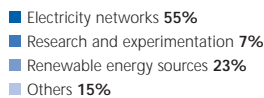
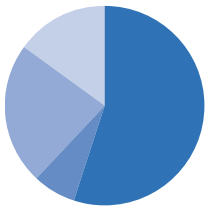
Issuer	Amount (millions of euros)	Coupon (%)	Maturity	Guarantee
Enel SpA	1,000	4.50	Oct. 13, 2008	*
Enel SpA	1,000	4.75	Oct. 5, 2004	*
Enel SpA	750	5,875	Dec. 12, 2005	-
Enel Inv. Holding BV	2,000	5.00	June 07, 2004	Enel SpA
Enel SpA	750	4.25	June 12, 2013	-
Enel SpA	750	4.75	June 12, 2018	-

\* The bond loan enjoys an implicit guarantee by the government as the sole shareholder at the time the bond was issued under article 2362 of the Civil Code.

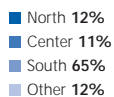
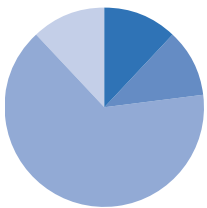
private placements by Enel SpA, in the amount of 735 million euros and by Enel I.H. BV in the amount of 838 million euros, bonds issued to the public by Camuzzi Finance SA in the amount of 200 million euros and other unlisted bonds issued by Enel SpA totaling 2,408 million euros.

## Concessionary loans

### Breakdown of the contributions obtained by activity



### Breakdown of the contributions obtained by geographical area



During 2003 the process of managing concessionary loans was established through the adoption of an organizational procedure that set forth its stages, objectives and roles in accordance with the provisions of the Organizational Model 231/01 (under Legislative Decree 231/2001).

The governance model adopted has allowed Enel to:

- > capitalize and develop what has been achieved in terms of instruments (thematic portal and distance learning) and expertise/knowledge acquired (knowledge-management system);
- > effectively support the development of the Divisions' competitiveness;
- > strengthen the natural role of the Enel Group as an active player in local development.

In 2003 the Enel Group obtained a total of 200 million euros in public contributions for investment concentrated in the following areas:

**Energy networks:** 110 million euros for developing and improving the reliability and efficiency of energy-transportation infrastructure, especially in southern Italy.

**Research and experimentation:** 15 million euros for studying, developing and testing innovative solutions dedicated to the cost-effectiveness of operating processes (production, transmission and distribution), service quality and the proper use of environmental resources.

**Renewable energy sources:** 46 million euros for investment in plants producing energy from renewable sources, with the following geographical distribution: 77% in the south and 23% in the center and north.

Enel also obtained from the European Investment Bank (EIB) a concessionary loan of 500 million euros regarding the electronic-meter project.

## Human resources

### > Evolution of the cost of labor

### > Incentive systems



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As of December 31, 2003 the number of people working at Enel totaled 64,770 employees. The total change with respect to their number on December 31, 2002 can be summarized as follows. The decrease of 6,434 persons is the net result of 1,379 hires, 6,238 terminations deriving mainly from early retirement (and the related incentives) and a net reduction of 1,575 persons due to changes in the operating perimeter. With regard to the latter, 880 employees left the Group as a result of the disposal of Interpower, while an additional 1,004 represent the human resources of Cesi, which was deconsolidated as from January 1, 2003.

### Evolution of the cost of labor

The cost of human resources decreases by 149 million euros because of the exit of Eurogen, Interpower and Cesi from the consolidation area and the reduction in the number of persons working in the traditional electricity business, which were partially offset by the effect of acquisitions in the gas industry.

#### The cost of labor

Millions of euros

	2001	2002	2003
Salaries and wages	2,645	2,554	2,440
Social-security contributions	726	700	675
Termination indemnities	218	208	197
Retirement benefits	26	22	26
Other costs	107	105	102
<b>Total cost of labor</b>	<b>3,722</b>	<b>3,589</b>	<b>3,440</b>
Average number of persons employed	77,184	71,932	67,203
Average unit cost (thousands of euros)	48.2	49.9	51.2
% change with respect to preceding year	3.6%	3.5%	2.6%

### Incentive systems



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Enel's pay policies are aimed at attracting, retaining and motivating human resources. They constitute an integral part of growth policies and are established and utilized according to the results of assessment processes.

The use of incentives concerns:

- > fixed pay, with the objective of acknowledging growth of the role the human resource performs in terms of the expansion of responsibilities, the extension of duties, and their impact on business results;
- > variable pay, with the objective of making explicit the relationship between individual

activities and the Company's performance, emphasizing the link between organizational responsibilities and the creation of value.

Incentives concerning variable pay are aimed at ensuring:

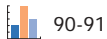
- > agreement on business objectives and emphasis on results;
- > alignment with respect to the levers of corporate value;
- > focus, so that goals that are really fundamental to the creation of value are evaluated differently with respect to those that play only a supporting role.



## Customers

- > Customer portfolio and sales volumes
- > Supply systems and access channels: electricity
- > Supply systems and access channels: gas
- > Supply systems and access channels: telecommunications
- > Legal disputes with customers

### Customer portfolio and sales volumes



Almost all of Enel's customers are concentrated in its core business of energy and in telecommunications:

- > **distribution and sale of electricity.** Total sales in TWh in the regulated and free markets and wholesale ones fell by about 9% with respect to 2002, mainly because of the increasing pressure of competition and a decrease in the amount of electricity purchased from abroad. In 2003 the electricity transported on the distribution network in Italy amounted to 244.4 TWh. The liberalization of the electricity market had a significant impact on Enel's market share with regard to distribution and sales in 2003: in the free market the share fell from 31% to 10%, while in the regulated market it decreased from 51.8% in 2002 to 47.1% in 2003 (net of dealers). Total revenue from the distribution and sale of electricity was 18,763 million euros.
- > **sale of gas.** Enel consolidated its position as the second-largest company in Italy's gas-distribution market with a share of about 11% and about 1.85 million customers. It was present in 16 regions and more than one thousand municipalities thanks to the integration of the 35 existing companies that gave birth to a single sales company, EnelGas, which has been in business since January 1, 2003. As far as sales to other distributors are concerned, 2003 recorded an increase of 45% with respect to 2002, taking into account the fact that in 2003 sales regarded the entire year.
- > **telecommunications.** In 2003 WIND consolidated its position as the second-largest integrated telephone company in Italy, with 9.9 million customers in mobile telephony, 3.1 million active customers in fixed-line telephony and 3.4 million active Internet customers. Revenue reached 4,383 million euros.

### Supply systems and access channels: electricity

Enel does business in both the regulated and free markets through dedicated companies and facilities. End customers, both household and business, have access to the supply of electricity and connected services through a number of sales channels:

Power bracket	Up to 30 kW		Over 30 kW
Market	Regulated	Regulated	Free*
Channels	> Telephone > Internet	Pronto Enel 800 900 800 <a href="http://www.prontoenel.it">www.prontoenel.it</a>	800 900 161 <a href="http://www.enel.it/enelenergia">www.enel.it/enelenergia</a>
Physical channels	Qui Enel ((for supplies up to 30 kW)	Punto Enel Account Manager	Account Manager
Company concerned	Enel Distribuzione	Enel Distribuzione	Enel Energia

\* With its resolution n. 20/03, the Authority for Electricity and Gas established that from May 1, 2003 all customers who consume at least 100,000 kWh a year may have access to the free market.

### Supply for the regulated market

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The supply of electricity for regulated customers (about 30 million in 2003) is ensured by Enel Distribuzione, which every year – within the limits set by the Authority for Electricity and Gas (AEEG) – proposes its rates options.

In order to provide an increasingly efficient service that is closer to its customers and satisfies their requirements, in 2001 Enel Distribuzione reorganized its sales network.

Regulated-market customers have several contact channels through which they can obtain information and assistance on matters regarding the electricity contract, such as the choice of rates, contractual changes and handling of more complex requirements.

### Technical quality of the service in the regulated market

 90

The duration of interruptions per customer in 2002 was well below the maximum values established by the aforesaid Authority for Electricity and Gas, which awarded Enel Distribuzione premiums amounting to more than 115 million euros.

Thanks, among other things, to technological innovation and the substantial investment made in the networks, the total duration of interruptions per customer decreased from the 184 minutes lost in 1999 to 103 minutes lost in 2002. During the same period, the number of customers belonging to areas with levels of continuity better than or equal to the benchmark national levels increased from 4% to 16%. The data regarding interruptions in 2003 (88 minutes) are in the process of being validated by the Authority for Electricity and Gas.

### Commercial quality for regulated customers

 50

Enel Distribuzione's average level of quality is superior with respect to the limits imposed by the Authority. In December 2003, the level of accessibility of the service through a toll-free telephone number amounted to 81% (the year's average) and average waiting time to about 3 minutes.

### Perceived quality

In 2003 around 1,200 interviews were carried out for the purpose of ascertaining the satisfaction perceived by customers with respect to the service provided by Enel. All of the customers interviewed had a contact with Enel during the year through a toll-free telephone number (through either an operator or automatic services). Overall satisfaction amounted to 8.1 on a scale from 1 to 10.

### Supply for the free market

 49-50

Enel does business in the free market through Enel Trade, which sells electricity to both eligible wholesale customers (through a standard contract that is identical for all firms) and eligible final customers, so-called "large energy users" (large industrial groups consuming more than 100 GWh a year), and Enel Energia, which serves final customers consuming less than 100 GWh a year.

In their respective market segments both companies are benchmark players regarding the supply of electricity and related services, providing personalized solutions, supplementing the supply of electricity with structured products for risk management and optimization services, and satisfying customer requirements with an advanced level of service that ensures the highest quality.

## Remote Management and electronic meters

**i** 50

The Remote Manager is a technologically innovative system of measuring electricity consumption and managing contractual relations with customers both locally and at a distance. It utilizes a mixed communication network (GSM and telephonic coupled with the low-voltage electricity network) between electronic meters installed on the premises of customers and the Company's customer management center. The Remote Manager also allows Enel to monitor the quality parameters of the electricity supply (number of interruptions, voltage variations, etc.). The project provides for the replacement of all of Enel Distribuzione's meters for both household and business customers.

As soon as they are installed, the new meters enable every customer to:

- > check his or her consumption regarding

both the current two-month period and the preceding one;

- > find out what the current rate is;
- > find out how much power is absorbed by the various household appliances in different situations of use.

With Remote Management customers can rapidly obtain connections and modify contracts by simply dialing 800 900 800, Enel Distribuzione's toll-free number. Remote Reading (meter reading at a distance) allows customers to have their bills calculated on the basis of the up-to-date consumption actually recorded, thus eliminating the practice of billing advances.

Electronic meters allow customers to use the full maximum available power (+10% of the committed power) for an unlimited period of time and in all environmental conditions.

## Supply systems and access channels: gas

**i** 50

Enel does business in the gas market through Enel Gas, the company that manages all aspects of the sale of methane gas to final customers. The activity of gas distribution is carried out by the Gas Network Business Area, which comprises Enel Distribuzione Gas, Camuzzi Gazometri and GEAD.

The mission of Enel Gas is to consolidate its position as Italy's second-largest gas company and to grow by selectively seizing the opportunities of the free market that allow it to exploit its competitive advantages. This mission takes the form of the gradual focusing of Enel Gas on small business and household customers and concentrating on providing excellent service and continually innovating the supply of the product. Enel Gas is characterized by its resolute orientation to customer satisfaction by continually seeking to provide quality services and respecting the values of its corporate culture, which aim to increase the company's value and enhance its image by enhancing customer relations.

### Enel Gas customer services

	Household customers	Professionals small and medium-sized firms, civil service, etc.	Business customers
Telephone	800 998 998	800 99 77 33	800 99 77 33
Internet	<a href="http://www.enelgas.it">www.enelgas.it</a>	<a href="http://www.enelgas.it">www.enelgas.it</a>	<a href="http://www.enelgas.it">www.enelgas.it</a>
Physical channel	Qui Gas Enel Customer Service Centers	Qui Gas Enel Customer Service Centers Network of agents for indirect sales outside network	Key account managers

## Enel Gas products

**For the household segment:** Enel Gas launched Accendipremi, a structured and innovative program to reward customer loyalty, the first of its kind in the Italian gas industry. With Accendipremi, customers of Enel Gas will have the opportunity to accumulate free points that can be converted into prizes to be chosen from a special catalogue or, if they prefer, into free cubic meters of gas. In addition, thanks to a series of agreements between Enel Gas and prominent firms, customers can use the points they accumulate to obtain discounts and concessionary terms or convert them into points valid for other well-known loyalty programs. On the Enel Gas website there is an area dedicated to Accendipremi, where customers can fill out the participation form and leaf through the catalogue of prizes directly on line, as well as obtain all the information on the program. Customers who have already signed up for the program will have an area at their disposal where they can get an update at any time on their points balance and choose and

order their prizes. During 2003 Enel Gas developed and launched a series of additional products to enlarge the selection. Among the latter is "50xsempre", is an exclusive offer for the household segment aimed at Enel employees who may become customers of Enel Gas.

**For the small-business-customer segment:** Enel Gas launched new offers for the supply of gas addressed to all condominiums and firms that use methane gas for productive purposes or for heating. "Valore" is an exclusive offer that allows customers to earn cubic meters of gas, while "Ricarica" is a multiple offer without time limits.

**For the large-customer segment:**

- > services connected with optimizing the supply;
- > energy advice on the efficient management of consumption;
- > web-based services regarding data management, etc.

## Enel Gas services

Enel Gas services for customers are:

- > **Customer Service (800 998 998 - 800 99 77 33):** responds quickly and efficiently to requests by customers regarding operations connected with using the service: starting the service, discontinuing the service, transfers, connection, meter installation, etc.;
- > **Qui Gas Enel:** located inside Enel.si stores, they are dedicated to the management of gas supply contracts;
- > **Customer Reception Centers:** local offices, whose purpose is to respond to the needs of customers who prefer a more direct relationship with the company and to support sales activities and offers of new services;
- > **Sales network:** consists of key-account managers specialized in the management of business customers throughout Italy;
- > **www.enelgas.it:** a personalized area available on this site, "My Home", offers both a counter service dedicated to the management of gas contracts and the services of Info Gas, from which customers can receive free-of-charge information directly on their mobile phones or at their e-mail address.

## Quality of the gas service

Enel Gas observes the quality standards established by the Authority for Electricity and Gas and measures the quality perceived by its customers in order to monitor their degree of satisfaction with the service.

The general levels of quality (requests for bill adjustments and written complaints or written requests for information) regarding the actual services provided by Enel Gas in 2003 were higher than those required by the Authority. In 2003 the commercial service provided recorded a quality

level of 77% (an improvement with respect to the 69% of 2002), with an average waiting time for the call center to respond of 27 seconds. The perceived quality (understood as an overall evaluation by customers based on a set of indicators such as billing, access to the service, etc.) by the customers of Enel Gas was 7.6 (on a scale of 1 to 10). The gas area is currently engaged in the process of extending the certification of its quality-management system according to the UNI EN ISO 9001:2000 standards.

## Supply systems and access channels: telecommunications



Wind, which is entirely owned by Enel and is Italy's third-largest mobile-telephony company, developed an innovative commercial philosophy based on a single access to communication and on innovative pricing structures.

The main results achieved in 2003 are:

- > video-streaming services launched early in the year (first European company in the field);
- > unbundling of the local loop;
- > market leadership in mobile number portability, with a market share of 44%;
- > cooperation with NTT DoCoMo (the Japanese telephone company) to promote in Italy third-generation cell phones based on UMTS technology.

## For the business market

In 2003 Wind redid its portfolio of offers for businesses in order to increase its consistency and improve its competitive positioning.

Specifically, Wind's voice offer during 2003 presented integrated products of fixed-line and mobile telephony for both the segment of small and medium-sized firms and the segment of large customers and industrial groups, proposing the advantages of a single service.

For the mobile market, Wind also proposes a prepaid offer for the creation of corporate mobile networks. In addition, all the products of mobile telephony offer the possibility of activating the GPRS service for mobile access to Internet and corporate intranets.

From 2003, provided there is geographical coverage of the sites, all "Wind Corporate" offers of fixed-line telephony allow the possibility of a direct connection to the Wind network through ULL access, which makes the customer independent of the previous supplier. Thanks to this kind of access, the customer's firm can definitively terminate all relations with Telecom Italia and interface with a single provider of telecommunication services.

In order to satisfy all of a firm's communication requirements, in 2003 Wind also offered Internet-access

and corporate-data-transmission (intranet) services that enable companies to connect both internally and with its different offices.

Finally, Wind also offers high-speed and very-high-speed point-to-point connections directly through its fiber-optic backbone. Such services are addressed to carriers and large companies and bureaucracies.

#### For the household market

Wind has perfected an easily legible offer with "all-inclusive" tariffs, convergent plans for fixed-line and mobile telephony and personalized proposals for the different market segments.

Among the most important innovations introduced are:

- > "Wind Inclusive", a rates plan for post-paid customers;
- > "MondoWind", a convergent (fixed-line and mobile) loyalty program;
- > "Cogli l'attimo SMS" for the youth segment and "Call Your Country" for the ethnic segment;
- > commercial launch of the new "i-Mode™" technology;
- > commercial experimentation of the UMTS.

As of December 31, 2003 there were 1,163 sales outlets – of which 203 were MondoWind and 960 multi-brand dealers – more than 97,000 'recharge points' and 30,000 ATMs. The customer assistance service is available around the clock at the toll-free number 158, while information can be obtained by dialing 155.

#### Wind's quality-management model

Customer satisfaction and perceived quality are benchmark objectives for all corporate activity at Wind, which has developed a certified system for the management of service quality, as well as internal organizational mechanisms for recording, analyzing and improving service quality.

#### Instruments for ascertaining the value created for customers

Wind's supply system is supported by instruments for ascertaining the value created for customers. These are aimed at registering the quality provided by the system and the quality perceived by customers through the use of specific indicators. Comparison of the quality provided and the quality perceived, registered through surveys of customer satisfaction, allows critical areas to be identified in detail. Efforts are made to improve such areas in order to increase the value generated for customers in the direction emphasized by the board of directors, which in 2002 decided to construct the system of strategic objectives on the basis of provided and perceived quality.

This model of analysis (and the consequent process of continual improvement that has involved the company in the last few years) have enabled Wind to make improvements in terms of both the quality provided and the quality perceived by the market in its activities regarding relations with customers.

## Management of Wind's relationship with the market

	Access	Use	Assistance	Transparency
Wind activity	Pre-sale, sale and start of service	Service provision	Commercial and technical assistance to customer	Billing, Dispute Management
Driver of customer value	Rapidity of start of service	Development and maintenance of networks and technologies	Promptness and effectiveness in resolving problems	Punctuality and clarity in sending billing data
Most representative indicators of perceived quality	Completeness of information, Ease of channel access	Network access	Ability to resolve problems on line	Correctness of billing

## Legal disputes with customers

As far as the electricity and gas market is concerned, litigation consists of 11,638 legal proceedings, most of which (about 80%) are aimed at recovering overdue receivables from customers.

In the telecommunications market, beginning in 2003 the data have been recorded according to a different criterion, which for the first time also takes into consideration minor litigation pending before justices of the peace and actions to recover overdue receivables from customers.

On March 7, 2002 the Authority for Competition and the Market initiated an investigation of Enel Energia (formerly Enel Trade) and the Parent Company for an alleged abuse of their dominant market position regarding the sale of electricity to eligible customers. The proceeding concerned several provisions inserted by Enel Energia in contracts for electricity sales to its customers in 2002 that allegedly determined a "retention effect" with respect to customers, in addition to limiting competition from other companies. Having terminated the investigation and questioned the parties involved, on November 27, 2003 the Authority determined that "the conduct of Enel SpA, acting through Enel Energia SpA, constitutes a serious violation of article 82 of the EC Treaty" and, therefore, applied a monetary administrative penalty amounting to 2.5 million euros to the Parent Company. The latter and Enel Energia appealed the decision of the aforesaid Authority to the Regional Administrative Court of Lazio on the grounds that Enel Energia did not have a dominant position in the market concerned during the period in question, that there had been no abuse of a dominant position, and that in any case the conduct referred to by the Authority was not attributable to the Parent Company. While the judgment is pending, the Parent Company paid the penalty by the deadline of ninety days from when the decision was notified. For further information, see Enel's Consolidated Financial Statements for 2003, which can be consulted at: [www.enel.it](http://www.enel.it).

### Enel's disputes with customers

	2002	2003
Electricity and gas	10,246	11,638
Telecommunications	103	818

80% of Enel's litigation regards the recovery of receivables from customers (for Wind the percentage is 20%).

## Suppliers

- > Purchase volumes and supplier portfolio
- > Relations with suppliers
- > Impact of the Code of Ethics on relations with suppliers

### Purchase volumes and supplier portfolio



With respect to 2002 there was a decrease in contracted sums amounting to 31% (excluding fuels), with a sharper reduction (down 41%) in supplies – connected in part with the fact that the electronic-meter project has reached an advanced stage of completion – and smaller changes in contract work (down 20%) and services (down 12%). As far as fuels are concerned, a slight decrease in purchases, amounting to about 6%, was recorded.

Excluding telecommunications (Wind) and fuels, the suppliers who received contracts in 2003 numbered about 16,900.

Enel Trade manages business regarding energy raw materials with the objectives of optimizing the conditions of supply to the Enel companies and developing – in order to supplement and optimize its activities – a range of products and services for the external market. Enel Trade is currently (2003 data) one of the leading European coal companies (14 million tons), the second-largest gas company in Italy and one of the largest in Europe (17 billion m<sup>3</sup>), and one of the leading non integrated fuel-oil and oil-product companies in the world (11 million tons), as well as the largest purchaser in the world of orimulsion (2 million tons).

As far as electricity purchases are concerned, in 2003 they amounted to 73.7 billion kWh, a decrease of 10.6% with respect to 2002.

The reductions regarded mainly purchases of electricity for the free market by the Independent System Operator (from 28.6 to 18.8 billion kWh, or -34%) and imports under long-term contracts (from 21.7 to 15.4 billion kWh).

Millions of kWh

	2002	2003
Electricity purchases	82,368	73,654

### Enel's Purchasing Portal (www.enel.it/acquisti)

The Purchasing Portal provides Enel's suppliers and business partners a unique point of access to on-line services and e-procurement (purchases through Internet) for supplier firms.

Among the on-line services there is an on-line office from which suppliers can obtain information on their job orders in progress, access to the platform dedicated to the Web EDI for the electronic exchange of business documents and access to the platform in order to participate in Enel's on-line tenders or obtain information about tenders that are planned or in progress.

In 2003 there were 1,632 on-line tenders, in which the approximately 3,100 suppliers who had requested and obtained special qualification were invited – usually several times – to participate. Through on-line tenders contracts worth about 800 million euros were awarded.



## Relations with suppliers

In September 2003 Enel established new qualification regulations for firms to be invited to participate in tenders for purchases, contract work and services. The qualification procedure for suppliers, which is accessed on-line through the Purchasing Portal, entails the evaluation of the financial, technical, qualitative and organizational aspects of every firm concerned by an Operating Evaluation Group. After it has made its evaluation, the Group draws up a special report, on the basis of which the Company Qualification Committee decides whether the firm in question is qualified or not. The register of qualified companies is managed and up-dated by the Parent Company's Purchasing and Services Department. Qualification is valid for three years and as of December 31, 2003 about 1,470 companies were considered qualified and had been entered into the register of qualified companies. There are currently about 200 product groups being considered for qualification. With regard to Telecommunications system, during 2003 about 1,100 suppliers of goods and services significant for Wind's business activities went through the company's pre-qualification process.

<b>Vendor-rating system</b>	Enel intends to adopt a vendor-rating system regarding its own companies in order to provide an incentive for its suppliers ensure high-quality services, optimizing Enel's purchasing activities through a better ratio between quality and price. For this purpose, a special operating procedure will be established, which will have a uniform approach throughout the group and will allow the gathering and processing of the information necessary to make the best use of the vendor-rating indices at the level of single companies, also with the involvement of local operating units.
<b>Legal disputes with suppliers</b>	Litigation between Enel and its suppliers consists of 547 pending legal proceedings of which 26.1% are active.

## Impact of the Code of Ethics in relations with suppliers

<b>Safeguard of the ethical aspects in supplies</b>	For companies that carry out even a part of their business activities in so-called countries at risk (available at: <a href="http://webfusion.ilo.org/public/db/standards/normes/">http://webfusion.ilo.org/public/db/standards/normes/</a> ) Enel has prepared several specific clauses of an ethical nature that will gradually be inserted in the various contracts. The clauses will oblige suppliers to not employ in the process of their activities, directly or indirectly, any person younger than the minimum age established by the legislation in force in the country in which the activities are to be carried out. In any case, no job should endanger the health, safety or morality of minors (the term "minor" refers to all persons who are less than 18 years old). In addition, suppliers will be obliged to keep at Enel's disposal registers and/or documents that must indicate the personal data of all employees who are under 18. The ethical clauses also regard the treatment of employees, the defense of trade-union rights and the prohibition of discrimination, abuse, harassment and forced labor, as well as provisions to ensure the safety and health of workers.
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## Shareholders

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### Enel cited as best practice for its dealing code

During 2003 Enel was found by Borsa Italiana SpA to have the best practice among Italian listed companies with regard to its dealing code (internal rules concerning the communication and use of sensitive data and information) and was invited to describe its experience to a focus group dedicated to this subject and restricted to professionals.

### Enel wins the 2004 Risk Management Award

Enel won the Risk Management Award, which is bestowed every year on the company that most distinguishes itself in the management of financial risks. The award was established by the British journal Risk, one of the leading ones in Europe on the subject of the management of risk connected with exchange rates, interest rates, stocks, commodities and credit. The award acknowledged the excellence of Enel's financial strategy, focused on stabilizing and reducing the cost of its debt rather than pursuing profit on the management of derivatives. Enel is the first Italian company to receive the prestigious award. Past recipients are Johnson Controls (2000), Volvo (2001), Microsoft (2002) and Scottish Power (2003).

## Lenders

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### The evolution of net financial debt in 2003

In 2003 net financial debt decreased by about 290 million euros as the combined result of an increase in net long-term financial debt amounting to about 2,200 million euros and a reduction of about 2,490 million euros in net short-term debt.

The ratio of debt to shareholders' equity consequently decreased from 1.17 to 1.13. Among the most significant financial transactions during 2003 were two bond issues of 750 million euros each – one 10-year and the other 15-year – by Enel SpA. Enel Investment Holding BV privately placed ten bond issues totaling 838 million euros. In addition, a loan contract – guaranteed by leading banks and amounting to a total of 500 million euros – was entered into with the European Investment Bank in favor of Enel Distribuzione, with a term of 15 years and a variable interest rate. Agreements were also signed for new 36-month rotating credit lines amounting to a total of 1,430 million euros to partially refinance expiring credit lines and maturing short-term loans. Finally, during the year the 5-billion-euro revolving credit line contracted in November 2002 expired and an agreement was entered into for a new one in the amount of 3 billion euros, of which one billion euros expiring in 12 months and two billion euros in 60 months.

## Human resources

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### Enel's pay policies

Variable pay at Enel breaks down as follows:

- > **MBO (Management by Objectives).** This ties variable pay to the achievement of agreed business goals that are objective and measurable. It regards about 80% of the executives and supervisors who perform roles of organizational or managerial significance.
- > **Sales incentives.** This ties variable pay to the performance of human resources engaged in sales activities and regards supervisors and clerks.
- > **One-off.** This is meant to reward the successful completion of important corporate projects or the attainment of an excellent level of performance.
- > **Stock-option-Plan.** The Plan concerns

about 88.5% of all executives and aims to encourage their entrepreneurial spirit, while at the same time ensuring constant attention to the creation of value for the Company.

- > **Programs of collective incentives.** These regard all human resources who work under the electricity industry's collective contract and are based on indicators of the Company's economic performance (EBITDA) and productivity/quality of the operating unit.

### Wind's pay policies

The Telecommunications Division's pay policies break down as follows:

- > **MBO (Management by Objectives).** This regards 100% of executives, about 44% of supervisors, and a small percentage of clerks considered developing resources.
- > **System of sales incentives.** This concerns all the human resources (supervisors and clerks) involved in corporate, consumer, wholesale and web sales and constitutes about 28% of their gross annual pay.
- > **Results bonus.** This regards all employees (except executives) and is tied to indicators of the Company's economic performance and customer satisfaction.

The last of the above represents one of Wind's most important objectives. Its emphasis on customer satisfaction and service quality is significantly based on the motivation and involvement of its human resources, specific characteristics that distinguish the Company in the telecommunications industry and constitute factors of its success. The measurement and certification of customer satisfaction are entrusted to external certification agencies.

## Customers

### Code of business practice

In compliance with the requirements of resolution 204/99 of the Electricity and Gas Authority, Enel Distribuzione published a code of business practice whose main aims are to:

- > ensure customers the possibility of making rational economic decisions;
- > ensure the fairness of existing rates and new rates and contract options;
- > allow the electricity service to be used at the lowest possible cost. (The code is published in its entirety on the website: [www.enel.it/enel Distribuzione/diritti\\_del\\_cliente/codice\\_condotta\\_casa.asp](http://www.enel.it/enel Distribuzione/diritti_del_cliente/codice_condotta_casa.asp)).

### Agreements between Enel and the Italian Post Office

Thanks to two agreements entered into with the Italian Post Office, new services are at the disposal of Enel customers. The first regards the opening of QuiEnel counters inside post offices, where customers can carry out many transactions regarding their electricity contract, while the second allows them to pay their electricity bills at more than 2,300 Postamat counters.

### Enel Club

The end of November 2003 saw the creation of Enel Club, a completely free-of-charge promotional initiative dedicated to Enel customers who choose to have their electricity bills charged directly to their bank account, post-office account or credit card. Customers who join Enel Club receive a card allowing them to take advantage of discounts, promotions and special offers regarding both products for the household and the family (UniEuro, Coin, Telepass Family, Ottica Salmoiraghi and Viganò) and leisure time (Mondadori bookstores, TicketOne ticket service and museums). With the card, moreover, members can also purchase highly energy-efficient electrical

appliances at advantageous prices. In addition to the card, the welcome kit for new members also contains a "Guide to Advantages", which lists all the participating stores and describes the different offers in detail. With every bill Enel Club members also receive the Enel Club News newsletter, which keeps them constantly up to date on the Club and the different initiatives of the Enel world.

### Electricity rates

The rates reform begun by resolution n. 204/99 of the Electricity and Gas Authority (AEEG) introduced mechanisms correlating the price of electricity with the costs incurred by transmission and distribution companies. The base rates for the supply of electricity are set by the Authority as maximum prices net of taxes and are up-dated by the price-cap method. This method employs a mechanism for the annual reduction of rates amounting to the difference between the estimated rate of inflation and the increase in productivity that the company can achieve, plus other factors that may influence the rates, such as improvements in service quality. In July 2003, the AEEG initiated the consultation procedure to determine the new rates for the period 2004-2007, which concluded with the publication of resolution n.5/04, which establishes the new rates for the service of the transmission, distribution, metering and sale of electricity for the years 2004-2007.

### Enel.si stores

Enel.si is present throughout Italy with an extensive and constantly expanding network of franchise stores run in a highly professional and reliable manner. As of December 31, 2003 there were about 650 stores doing business, and it is planned that by the end of 2005 a thousand sales outlets will be open. The stores offer advanced services and solutions for electricity and heating systems for both households and businesses.

- > **Safety:** design, construction, renovation and check-ups of electricity systems; installation of systems for detecting gas leaks (and floods); installation of video-surveillance and anti-trespassing systems.
- > **Comfort:** installation and maintenance of air-conditioners, boilers and automated household systems and related services.
- > **Electricity conservation:** sale and installation of photovoltaic plants and high-efficiency lighting systems for workplaces.

Complete information on Enel.si products and services is available on the website: [www.enelsi.it](http://www.enelsi.it)

There is also a toll-free phone number: 800 90 1515.

### Micro-generation of electricity

Since early 2003 Enel has been developing an innovative generation service based on small production plants using natural gas in a cogeneration system and located directly on the premises of the final user. Micro-generation systems (CPH, Combined Power and Heat) ensure the availability at all times of the electricity required through highly efficient, innovative technologies deriving from the automobile and airplane industries. Sales began in 2002 and are mainly to small and medium-sized firms, hospitals, and large sports and shopping centers requiring an uninterrupted supply of both electricity and heat. The first customers acquire demonstrate that micro-generation ensures a saving of about 10% on costs.

### The new system of customer relationship management (CRM)

At the end of 2002 Enel Distribuzione developed a new version of CRM that ensures the integration of all the contact channels made available to customers. The integrated CRM system allows the human resources of Enel Distribuzione concerned to share information on customers who use different channels for access.

### **Meter replacement plan**

Enel Distribuzione continues the free-of-charge installation of the new meters throughout Italy, and it is expected that by the end of 2005 about 30 million of them will have been installed. As of December 31, 2003 about 13 million meters had already been replaced. Replacements proceed at the rate of about 700,000 meters a month. The investment to carry out the entire project amounts to about two billion euros. On February 5, 2003 an agreement was entered into by Enel and all the consumer associations of the National Council of Consumers (CNCU) that provides for: a 21% increase for three consecutive hours of the "toleration threshold" of the new meters, the possibility of joint verification of their functioning, a common evaluation of the new multi-band rates, and the continual provision of information.

### **Enel-IBM alliance**

Early in 2004 Enel and IBM announced that they were forming an alliance to sell to utilities all over the world Enel's integrated system for remote metering, managing and reading the consumption of electricity. The system can increase the efficiency and quality of customer services by reducing metering errors and waiting time. In this way customers can be offered diversified rates that provide an incentive for them to use electricity at times far from peak hours. Enel and IBM estimate that the potential world market for this innovative solution has a value of more than 120 billion euros.

### **Enel Gas acquires customers in Sicily**

At the end of 2003 Enel reached an agreement for the acquisition of the Sicilmetano group, which comprises Sicilmetano Spa (gas distribution) and Sicilmetano Energy Srl (sales). The Sicilmetano group serves about 37,000 customers in the provinces of Palermo, Catania, Ragusa, Agrigento and Siracusa. Total consideration for 100% of the share

capital of both companies was 41 million euros. With this acquisition Enel Gas continues its ambitious plan for growth in the gas market.

## *Suppliers*

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### **Express rescission clause**

In order to strengthen ethical clauses, contracts will include their rescission in case of nonperformance: "Breach on your part of the aforesaid clauses shall entail the de jure rescission of the present contract pursuant to article 1456 of the Civil Code, without prejudice to Enel's right to indemnification for the damage. Enel in any case reserves the right to carry out inspections of the production units concerned by the present contract in order to verify compliance with the above clauses."





## **Environmental responsibility**

- > Governance for the environment
- > Reduction of environmental impact
- > Increase of energy efficiency
- > Commitment to the environment

## Governance for the environment

- > Environmental organization
- > Information and education

### Environmental organization

The Environmental Policies Unit of Enel SpA's Department of Institutional and Regulatory Affairs is entrusted with the task of establishing the general environmental objectives of the Company and of ensuring the consistency of the programs and initiatives carried out by the Divisions. In each Division there are operating units and/or individuals in charge of carrying out activities in the environmental field with regard to such initiatives and issues.

### Information and education

Also in 2003 Enel emphasized information and education to publicize its initiatives inside and outside the Company, acting to increase the expertise and professional qualifications of its human resources.

In particular, as far as environmental education is concerned, in 2003 over 10,000 man-hours of specific education modules addressed to the people who work in connection with the environment were developed.

External communication also represents an important means of publicizing Enel's environmental initiatives and performance. This takes place in different forms and ways and materializes in the publication of the Environmental Report and in the preparation of special IT instruments disseminated via Internet: "Canale Ambiente" and "Canale Natura".

During 2003 "Canale Ambiente" and "Canale Natura" recorded an average of about 6,300 visitors a month, which led to about 21,500 pages visited a month.

The Environmental Report has been published voluntarily every year since 1996. Because of its transparency and clarity in its presentation of data (verified and certified by independent agencies), this document is highly regarded by public and private institutions, environmental and business associations, and scientists and specialists, as well as by public opinion.



The 2003 Environmental Report can be consulted and downloaded on the website: <http://www.enel.it/ambiente>.



## Reduction of environmental impact

- > Reduction of atmospheric emissions
- > Waste recovery
- > Fuel mix
- > Development of renewable energy sources

### Reduction of atmospheric emissions

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During 2003 atmospheric emissions deriving from the process of combustion in thermal power plants decreased significantly with respect to the values of the preceding year. Specifically, emissions of sulfur dioxide (SO<sub>2</sub>) fell by about 50%, those of nitrogen oxides (NO<sub>x</sub>) by 19%, and those of particulates by 44%. The result was to a large extent achieved thanks to the confirmed gradual reduction of the use of fuel oil in favor of natural gas, the volume of which increased by more than a billion m<sup>3</sup> with respect to the values of the preceding year. Specifically, at the Porto Tolle power plant there was a reduction of over 60,000 tons of SO<sub>2</sub> and more than 4,000 tons of NO<sub>x</sub>. The increased efficiency of generating plants and the application of innovative technologies for the abatement of particulates in smoke also contributed to the result.

As far as emissions of carbon dioxide in Italy are concerned, there was a reduction of about 7%, from 720g/kWh in 2002 to 670 in 2003. With regard to generating plants abroad, specific polluting emissions, expressed in g/kWh, were: SO<sub>2</sub> = 31, NO<sub>x</sub> = 1.8, particulates = 1.1, CO<sub>2</sub> = 998 (data regarding Viesgo and Maritza East III Power Company).

### Waste reclamation

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Enel is also a leader in its commitment to reducing the quantity of waste produced and to recovering it. Through the implementation of integrated management of the industrial-waste cycle, realized by developing the various kinds of recovery (reutilization, recycling, recovery of matter and/or energy), in 2003 the total waste deriving from industrial activity in Italy amounted to about 1,807,000 tons, of which 98% was non-hazardous waste. The share of recovered waste remained high and in 2003 amounted to 91%. It should be emphasized that coal ash is totally recovered and used in the production of cement and concrete. The gypsum deriving from the desulfurization of fumes is completely recovered and contributed to the construction industry for manufacturing panels. With regard to waste deriving from industrial activity abroad, total waste amounted to about 2,112,000 tons, of which about 99.9% was non-hazardous.

### Fuel mix

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Enel continues to improve the fuel mix used in its thermal power plants and to make it more balanced. Liberalization of the electricity market makes this necessary in order to:

- > lower the cost of electricity production;
- > reduce polluting emissions;
- > ensure greater supply security.

To achieve these objectives Enel started and is about to conclude a plan for converting several power plants using fuel oil to gas combined-cycle technology. In addition, on December 24, 2003 the Ministry of Productive Activities issued a special decree which authorizes Enel to convert the Torrealvaldiga Nord power plant in Civitavecchia from fuel oil to coal. Also pending is the authorization to convert the 2,600-MW Porto Tolle power plant to orimulsion.

## Development of renewable energy sources

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During 2003 Enel was the company most active in developing wind plants in Italy, putting into operation five new plants, constructed according to criteria of environmental compatibility, with a total capacity of 68 MW, which amounts to more than half of all new capacity constructed in Italy. On June 16 Enel signed an agreement with Unión Fenosa for the acquisition of 80% of the Spanish company UFEE, Unión Fenosa Energías Especiales (subsequently renamed Enel Unión Fenosa Renovables) and a 50% interest in the company that will construct the Palos de la Frontera combined-cycle power plant. In December Enel Latin America started to operate the new 43-MW El Canada hydroelectric power plant in Guatemala.

At the end of the year the net efficient power from renewable energy sources amounted to 16,640 MW (including 319 MW from UFEE), of which about 91% was produced in Italy.

## Increase of energy efficiency

- > Energy efficiency in electricity generation
- > Energy efficiency in the distribution of electricity and gas
- > Energy efficiency in end uses

### Energy efficiency in electricity generation

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Net production in 2003 amounted to 149.5 TWh, of which 7.8% was from foreign plants.

In particular, the following should be noted:

- > the large increase in combined-cycle generation in Italy: from an 8.9% share of total production in 2002 to 18% in 2003;
- > the decrease in production using fuel oil: from 35.7 TWh to 29.2;
- > the increase in production from renewable sources other than hydroelectric. As far as geothermal production is concerned, 2003 was a record year in Italy: in effect, production reached the threshold of 5 TWh (the average consumption of two million families), an increase of 15% with respect to 2002.

In 2003 five new combined-cycle units entered service in four power plants:

- > 1 unit at Pietrafitta
- > 1 unit at Porto Corsini
- > 1 unit at La Casella
- > 2 units at Priolo Gargallo

amounting to a total of about 1,900 MW. More than one billion two hundred million euros have been invested in conversions since implementation of the plan began. The performance of Italian thermal plants is improving, with a net yield of 39.4% recorded in 2003 (37.7% in 2002) and a factor of unavailability for call into service (KS, regarding Enel Produzione) of 3.8% (3.9% in 2002).

### Energy efficiency in the distribution of electricity and gas

Network losses are a measure of efficiency in the phase of electricity transportation. The construction of new HV/MV (high-voltage/medium-voltage) and MV/LV (medium-voltage and low-voltage) substations and the renovation and repowering of MV and LV power lines have reduced losses on the distribution network, thus avoiding the amount of thermal production that would otherwise have been necessary and the related emissions of CO<sub>2</sub>.

As far as the efficiency of gas distribution is concerned, the results of the technical inspection of the state of the gas network show that during 2003 45% of the network was checked, revealing 509 leaks every 1,000 kilometers of network.

### Energy efficiency in end uses

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The Company's activities in the field of energy efficiency in end uses are conditioned by the impending new legislative framework. Several planned actions will take place as soon as the new decree is in force. Meanwhile, Enel has launched Enel Club's initiative on energy efficiency in end uses, promoting the acquisition of efficient electrical appliances. In addition, the Company is continuing to develop micro-generation as an integrated and flexible system for the supply of electricity (Production and rational use of electricity). As of December 31, 2003 11 plants, representing a total of 598 kW of installed power, were in operation.

## Environmental indicators

	2003	2002		2003	2002
<b>Conservation and quality of resources</b>			<b>Specific atmospheric emissions</b>		
Net specific consumption of fossil thermal production (kcal/kWh)	2,184	2,278	SO <sub>2</sub> (fossil thermal production - g/kWh net thermal)	1.03	1.9
Net specific geothermal consumption (kcal/kWh)	5,324	5,491	NO <sub>x</sub> (fossil thermal production - g/kWh net thermal)	0.6	0.7
Net yield of hydroelectric production from pumped storage (%)	70.7	71.2	Particulates (fossil thermal production - g/kWh net geothermal)	0.04	0.06
Consumption of natural gas for network operation (% of natural gas distributed)	-	0.06	H <sub>2</sub> S (geothermal production - g/kWh net geothermal)	4.8	4.8
Leakage of natural gas from the network (% of natural gas distributed)	0.35	0.35	CO <sub>2</sub> (fossil thermal production - g/kWh net thermal)	670	720
<b>Net specific requirement of water for industrial use in thermal production</b>			SF <sub>6</sub> (% of amount)		
including unprocessed seawater (liters/kWh)	0.407	0.364	CH <sub>4</sub> (gas distribution - g/m <sup>3</sup> of natural gas transported)	1.8	1.8
excluding unprocessed seawater (liters/kWh)	0.320	0.309	<b>Net specific production of waste</b>		
<b>Breakdown of fossil-fuel consumption</b>			Coal ash (g/kWh net from coal)		
fuel oil (% of total fuel consumption)	27.6	34.1	Light oil ash (g/kWh net from fuel oil and diesel)	0.41	0.42
orimulsion (% of total fuel consumption)	4.2	4.5	<b>Waste recovery</b>		
diesel (% of total fuel consumption)	0.4	0.2	Coal ash (% of quantity produced)	99	94
natural gas (% of total fuel consumption)	40.3	31.7	heavy (% of quantity produced)	100	100
coal (% of total fuel consumption)	27.4	29.5	light (% of quantity produced)	99	94
lignite (% of total fuel consumption)	0.0	0.00	Gypsum from desulfurization (% of quantity produced)	97	94
high-sulfur fuel oil (% of total fuel-oil consumption)	0.0	0.1	Other non-hazardous special waste		
medium-sulfur fuel oil (% of total fuel-oil consumption)	1.2	30.0	electricity generation and geothermal drilling (% of quantity produced)	47	45
low-sulfur fuel oil (% of total fuel-oil consumption)	35.0	29.7	electricity transmission and distribution (% of quantity produced)	100	95
sulfur-free fuel oil (% of total fuel-oil consumption)	63.8	40.2	gas distribution and telecommunications (% of quantity produced)	94	50
natural gas: not technologically obligatory use (% of total natural-gas consumption)	41.0	72.9	<b>Total (% of quantity produced)</b>	<b>57</b>	<b>55</b>
natural gas: technologically obligatory use (% of total natural-gas consumption)	59.0	27.1	Light oil ash (% of quantity produced)	8	4
Geothermal steam used for electricity generation (% of total geothermal fluid extracted)	99.5	99.5	Other hazardous special waste		
<b>Production of electricity from renewable sources</b>			electricity generation and geothermal drilling (% of quantity produced)		
thermal from biogas (% of total production)	-	-	electricity transmission and distribution (% of quantity produced)	69	68
geothermal (% of total production)	3.7	3.2	gas distribution and telecommunications (% of quantity produced)	9	0
hydro from natural flows (% of total production)	13.6	14.9	<b>Total (% of quantity produced)</b>	<b>33</b>	<b>39</b>
wind and solar (photovoltaic) (% of total production)	0.056	0.038	<b>Landscape</b>		
<b>Total (% of total production)</b>	<b>17.3</b>	<b>18.1</b>	LV power lines		
			in overhead cable (insulated - % of entire LV network)		
				52	52.1
			in underground cable (% of entire LV network)		
				30.4	29.6
			<b>Total in cable (% of entire LV network)</b>		
				<b>82.5</b>	<b>81.7</b>
			MV power lines		
			in overhead cable (insulated - % of entire MV network)		
				2.15	1.88
			in underground cable (% of entire MV network)		
				36.1	35.2
			<b>Total in cable (% of entire MV network)</b>		
				<b>38.3</b>	<b>37.1</b>
			380-kV double three-phase power lines (% of total 380-kV lines)		
				9.4	9.2

## Commitment to the environment

### > Application of environmental management systems

#### Application of environmental-management systems

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In order to approach environmental questions in an orderly and effective way, Enel has continued to introduce in its sites and activities management systems that meet the international ISO 14001 and EMAS standards. The objective is to obtain ISO 14001 certification for all its production sites by the end of 2008; the Company also intends to request EMAS registration for at least 90% of its plants by the end of 2006. At the end of 2003 51% of installed power (58 plants) had been certified as opposed to 40% at the end of 2002.

So far the La Casella, Torrevaldaliga Nord, Porto Marghera, Fusina, Sulcis, Montalto di Castro, and Leri Cavour thermal power plants have obtained EMAS registration, as well as the Cordevole, Avisio and Vomano hydroelectric plants. In addition, ISO 14001 certification has been obtained by the environmental management systems of the thermal Business Units of Porto Tolle, Brindisi Sud, Priolo Gargallo, and La Spezia and the hydroelectric Business Units of Bologna, the Entracque plant, the Taloro Hydroelectric Area and the Nove Operation Unit. For these plants preparatory activities for EMAS registration have already begun.

In 2003 several initiatives began for extending certified environmental management to the power transmission and distribution networks. In the same year and with the prime objective of minimizing the environmental risk connected with sea transportation, Enel Trade – in cooperation with RINA Industry – created and put into operation an expert system for assessing the reliability of the ships used for transporting oil products, based on statistical and probability analysis. Also being examined is the application of this system to the selection of ships for transporting coal.

In October 2003, Wind obtained the renewal of ISO 14001 certification for the next three years as part of a "re-examination of its environmental management system". Wind had obtained certification as early as December 2000 and was the first telephone company in Italy – and among the first in Europe – to pass all the inspections planned and obtain this important attestation.

#### Research and experimentation in the field of green energy

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In electricity generation from renewable sources, Enel owns about 700 hydroelectric, wind, geothermal, photovoltaic and biomass plants in Italy, Spain, North America and Latin America, amounting to over 16,640 installed MW.

Confirming its commitment to environmental excellence and to research and experimentation in the field of green energy, in 2003 Enel received the "Environment-friendly Innovations" prize awarded by Legambiente, the regional Authority of Lombardy, the Polytechnic Institute of Milan and the Luigi Bocconi University.

During 2003, the Enel unit dedicated to research with the objective of making the best use of both newly constructed plants and those in operation – through the exploitation in an ecologically compatible way of diversified low-cost fuels in highly reliable generating systems – concentrated its activity on programs aimed at:

- > diversifying sources;
- > abating polluting substances;
- > exploiting residues;
- > reducing CO<sub>2</sub> emissions;
- > developing hydrogen technologies.

## Environmental litigation

Litigation mainly regards the installation and operation of electric plants and presents common issues for Enel Distribuzione and Terna, which have succeeded the Parent Company in the related relations. The largest part at the moment is the one connected with the effects of the electromagnetic fields emitted by the plants. The two companies that have replaced the Parent Company are involved in various civil and administrative proceedings, in which plaintiffs request that power lines be moved or that changes be made in the way they are operated, claiming that they are potentially dangerous even though they were installed in full compliance with the applicable regulations. Only in a limited number of cases has indemnification been requested for damage to health caused by the electromagnetic fields. With regard to the decisions in these proceedings, it should be noted that only in sporadic cases have judgments been unfavorable, and all such cases have been appealed. So far, no unfavorable decisions have become definitive and in no case has compensation been awarded for damage to health.

With specific regard to Enel Distribuzione, there is also litigation in progress concerning the

electromagnetic fields of medium- and low-voltage substations installed inside buildings, all of which are well below the induction limits provided for by Italian law.

Also pending are several proceedings regarding city planning, the landscape and the environment connected with the construction and operation of generating plants and transmission and distribution lines. An examination of such proceedings, taking into account the opinions of legal advisors, leads to the conclusion that, in general, negative outcomes are to be considered remote. For a limited number of proceedings negative outcomes cannot be absolutely excluded, and in such cases the consequences could consist in the costs connected with changes in plants and the temporary unavailability of the plants themselves, in addition to possible payments of damages. Such costs cannot be objectively determined at present and are thus not included in the determination of the "Provision for litigation, risks and other costs".

For further information, see Enel's Consolidated Financial Statements for 2003, which can be consulted at: [www.enel.it](http://www.enel.it)

## *Reduction of environmental impact*

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### **Enel North America acquires two hydroelectric power plants in the U.S.**

Enel North America has increased its productive capacity from renewable sources by acquiring a controlling interest in two hydroelectric power plants in the United States: Twin Falls (24 MW) in Washington and Lower Saranac (9.3 MW), near Plattsburgh, New York. Enel North America, formerly CHI Energy, is one of the leading producers on the continent of electricity from renewable sources, with 418 MW from mini-hydro, wind and biomass plants in the United States and Canada. It was acquired by Enel in December 2000.

### **Enel and the Venetian hydrogen consortium**

In early 2004 Enel signed an agreement for the creation of one of the largest aggregations in the world for the production and use of hydrogen and the promotion of studies and projects aimed at the development of this precious new source of energy. Exploiting the productive and logistic synergy with existing power plants, together with the CNR (National Research Center) Enel has started a pilot project that allows hydrogen to be extracted economically from coal. Enel is studying the possibility of constructing an experimental plant for producing hydrogen from coal and a subsequent hydrogen-fired thermal cycle at the Fusina/Marghera production center. Hydrogen's strong point is that it can be used with no emissions at all. Whatever apparatus transforms this source into energy (thermal and mechanical in turbines and internal combustion engines, electric as happens in fuel cells), the byproduct is always and only water. Enel is also working within international research programs on perfecting systems for capturing and segregating CO<sub>2</sub>.

### **Wind fields in Galicia**

In February 2004 Enel Unión Fenosa Renovables (EUFER) inaugurated two new wind farms at Peña Forcata and Cabo do Vilan in the region of Galicia, in northwestern Spain, which entailed an investment of 50 million euros and have a total capacity of 50.7 MW.

### **The Archimedes Project**

The cooperation between Enel and Enea for more efficient and flexible solar energy has given birth to the Archimedes Project, the first application in the world of the integration of a gas combined-cycle with a thermodynamic solar plant, based on a highly innovative technology developed by Enea. Enel and Enea are studying the possibility of constructing the experimental plant at Enel's Priolo Gargallo (Siracusa) power station. The large solar plant should be built in an adjacent area owned by Enel and increase the capacity of the existing combined-cycle power station by about 20 MW, enabling it to:

- > generate enough additional electricity from the solar source to satisfy the requirements of a city with 20,000 inhabitants;
- > save 12,500 tons of oil equivalent a year;
- > decrease CO<sub>2</sub> emissions by 40,000 tons a year.

Archimedes will use a high-yield technology, which will produce electricity from the sun continuously, even at night and when it is cloudy, thanks to a mixture of salts that can hold for a long time the heat collected during the day.

### **Conversion of the Civitavecchia power station to non-polluting coal begins**

Enel acknowledges with satisfaction the go-ahead of the Minister of Productive Activities, Antonio Marzano, for the conversion of the Torvaldiga Nord power station in Civitavecchia from fuel oil to non-polluting coal while maintaining all the commitments provided for by the

agreement signed at Palazzo Chigi by Enel and the mayor of Civitavecchia. The agreement provides for significant actions to protect the environment, actions to compensate the municipality of Civitavecchia, and measures to increase employment and foster the development of local entrepreneurship. The project entails an expenditure of about 1.5 billion euros and constitutes the largest investment in Enel's 2002-2007 plan regarding electricity generation. For further information on the environmental impact of the conversion of Torvaldiga Nord, see the 2003 Environmental Report.

## *Increasing energy efficiency*

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### **Enel wins the contract for the management of the St. Petersburg power station**

In March 2004 Enel and the private Russian company ESN-Energo won the tender for the contract for the management of the North West Thermal Power Plant (NWTTP, 61.5% of which is owned by RAO UES, the largest Russian producer of electricity) in St. Petersburg.

Enel ESN-Energo (EEE), as the 50-50 joint venture constituted by Enel and ESN is called, will be entirely responsible for managing the plant for three years, with the possibility of extending the period for another year. The combined-cycle power station has 450 MW of installed power and is fired by natural gas. It produces 3.4 billion kilowatt hours a year for the Russian and Finnish markets.

EEE will have to supervise the completion of a second 450-MW unit and the laying of the conduits that will carry steam from the plant to the city of St. Petersburg to supply district heating.



## Commitment to the environment

### Reclamation of areas of national interest

Law 426/98 identified a first series of industrial areas of national interest at high environmental risk and consequently needing to be reclaimed. There are seven power stations located in such areas. Decrees issued on March 8, 2001, February 24, 2003 and March 12, 2003 subsequently delimited the sites of national interest on the coastal area of Domizio Flegreo and Agro Aversano (encompassing Enel's Giuliano and Maddaloni power stations) and in the Sulcis-Iglesiente-Guspinese areas (encompassing the Sulcis, Porto Scuso and Livorno power stations). All in all, the following Enel power stations are located inside the delimited areas: Augusta, Brindisi Sud, Fusina, Giuliano, La Spezia, Livorno, Maddaloni, Piombino, Porto Marghera, Porto Scuso, Priolo Gargallo, and Sulcis. Pursuant to the Environment Ministry's decree n. 471 of October 25, 1999, which implements the provisions of article 17 of legislative decree n. 22 of February 5, 1997 (the so-called Ronchi Decree) regarding the criteria to follow for reclaiming the polluted sites, it is necessary to prepare a "characterization plan" and (after the plan has been approved) a subsequent characterization of the areas according to the methods specified in the aforesaid decree 471/99. The results of the investigations provided for by the plan are followed, where necessary, by appropriate reclamation projects to restore the environment or make the site safe.

### Environment-friendly innovations award for 2003

On October 20, 2003 Enel received double recognition for Environment-friendly

innovations. The important prize was awarded for two projects connected with technological research.

With the Marmettola project, the Eugenio Montale power station in La Spezia exploits the residues of marble production for the desulfurization plant. The technology helps the environment thanks to the high abatement of sulfur dioxide, the elimination of dumps and the reduction of water consumption and the transportation of particulate matter, with a considerable saving of energy, lime, fuel oil and water. Since February 2002, with the AMIS (Mercury and Hydrogen Sulfate Abatement) project Enel has eliminated the unpleasantness caused by the characteristic odor deriving from the emissions of hydrogen sulfate typical of the areas where geothermal sources are located, improving the quality of the air and facilitating the integration of the plants in the environment.

The AMIS abatement systems are already operative at three power stations and their installation at 15 other existing plants by the end of 2005 is planned.

### Hydrogen technology

In cooperation with the CNR and several universities, Enel has elaborated a project aimed at the production of hydrogen at competitive costs using innovative technologies (a process of gasification and subsequent reforming) in coal-fired power stations. In this way it will be possible to contribute to the solution of the problems of pollution in cities with heavy traffic, creating incentives to use hydrogen-powered fuel cells in urban transportation systems, which eliminate emissions of fine particulates and organic pollutants by motor vehicles. In short: coal is used to decrease urban pollution.

This approach aims at a production of hydrogen that is rather limited, but available at a low price because of the use

of logistic facilities that already exist in Enel's power stations and the competitive cost of coal.

### DOC-ash project

This project aims to develop innovative systems for producing coal ash of certified quality and high economic value for use in the production of cement and concrete. Activity has regarded the experimental assessment of processes of separating the unburned carbonium in ash, which at high levels is not compatible with the aforesaid uses, by sifting, triboelectrostatic separation, and reburning.

The potential of using ash subjected to micronization treatment in the production of highly resistant and highly durable concrete has also been successfully tested. At the same time, the factors that influence ash quality has also been analyzed for different kinds of coal and different methods of combustion.

The three-year research project is financed by IMI-MIUR as part of the 2000-2006 National Operative Programs for Objective-1 Regions and also provides for the cooperation of the CNR, the Universities of Bari and Lecce, the University of Basilicata and the Polytechnic Institute of Bari.

### Environment and telecommunications

Ever since it was incorporated Wind has ensured the use of latest-generation technology in order to both limit the level of the electric and magnetic fields emitted by its plants and minimize the visual impact of the latter. This effort enabled the prestigious goal of ISO 14001 certification to be achieved in 2000, which together with the OHSAS 18001 on safety make Wind a company that is investing in the sustainability of its business.









## **Social responsibility**

- > Human resources
- > Communities

## Human resources

- > Ensuring a safe and healthy work environment
- > Human-resource search and selection
- > Relations with universities
- > Resource management
- > Social institutes
- > Industrial relations

### Ensuring a safe and healthy work environment

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Enel's commitment is to "spread and reinforce a culture of safety, developing an awareness of risk while promoting responsible forms of behavior on the part of all staff members" (Code of Ethics). The safety and health of workers are an integral part of Enel's culture and industrial policy and ensuring them actively involves all its workers and their representatives. In order to put into practice its commitment with

regard to safety, Enel is active on many fronts, including, for example, the following:

- > training and awareness-raising for employees (more than 260,000 hours dedicated in 2003);
- > constant updating of risk-assessment documents;
- > safety-management systems meeting the international OHSAS 18001 standards.

#### Fatal and serious\* injuries of Enel human resources

Type	1998		1999		2000		2001		2002		2003	
	F	S	F	S	F	S	F	S	F	S	F	S
Electrical	1	11	1	8	1	10	0	8	1	5	0	1
Hit by moving things	1	1	0	0	0	3	0	2	0	0	1	3
Fall	2	8	2	7	1	3	0	8	0	6	0	2
Road accident	0	2	2	0	0	1	1	4	1	3	3	0
Other	0	1	1	5	0	0	0	0	0	2	0	0
<b>Total</b>	<b>4</b>	<b>23</b>	<b>6</b>	<b>20</b>	<b>2</b>	<b>17</b>	<b>1</b>	<b>22</b>	<b>2</b>	<b>16</b>	<b>4</b>	<b>6</b>

\* With prognosis of more than 30 days – F: fatal injuries – S: serious injuries

The financial effort that Enel dedicates to the safety and health of its workers is enormous. During 2003 a total of more than 32 million euros was allocated to these matters, without taking into account capital expenditure on plants and buildings that actually constitutes an improvement in workplace safety. The main indicators are available in the attachments. It should be emphasized here that informing and educating the people who work at Enel plays a central role in the Company's philosophy of safety, with the primary objective of fostering a deeply-rooted culture through awareness of risks and specific training for the job to be done.

#### Fatal on-the-job injuries

	1998	1999	2000	2001	2002	2003
Production	0	3	0	0	0	0
Transmission	1	0	0	1	0	0
Distribution	3	2	1	0	1	4
Other	0	1	1	0	1	0

In addition, particular emphasis is given to initiatives regarding health supervision, which enable the Company to reduce risks for workers to minimum levels through the use of specific studies and research, as well as the other specific measures of prevention and protection adopted for individual workplaces. In this perspective, the Generation and Energy Management Division (GEM) has set itself the following goals for the current year:

- > reduction of professional injuries and diseases;
- > reduction of injuries and diseases of third parties who do work in GEM plants.

The consequent plan of action provides for greater involvement of human resources in identifying and implementing measures of prevention, with special reference to manual workers, and ever closer cooperation with contracting firms in the process of understanding the risks connected with production plants and in the ensuing measures of prevention and protection, including training their personnel.

The Market, Infrastructure and Networks divisions have also set itself the goal of reducing injuries to human resources of contracting/supplier firms and accidents involving third parties because of events connected with Enel infrastructure. From 2004 to 2006 there will be specific training for Enel human resources in charge of supervising construction and similar work sites together with selective checks and inspections regarding the safety management of contract work. As far as injuries to third parties are concerned, initiatives are planned regarding information and raising awareness, which will be aimed at the most representative associations in the fields of underwater fishing and building construction. With the aim of further improving the hygienic and safety conditions of the people who work at Enel, substantial capital expenditure has been planned for the three-year period 2004-2006 on buildings used as offices, warehouses, and seats of operating units (15 million euros in the aforesaid period), in addition to improvements and adjustments in the training paths of the human resources most involved in operations and in continuing training.

Terna has already obtained ISO 9001:2000 certification. The latter essentially concern "quality assurance", but also provide for rules regarding the safety of workers. Plans for the next three years provide for the periodical updating of work procedures and methods, partly in view of regulatory changes, and selective and focused training actions regarding the reduction of on-the-job injuries.

In order to maintain the standard of safety achieved with its OHSAS 18001 certification, Wind plans for the next three-year period actions to increase awareness with regard to the safety of both its employees and its partners by, among other things, examining and monitoring the latter's safety organizations.

In keeping with recent regulatory directives, Enelpower has updated the guidelines – which are particularly detailed – regarding safety on worksites (Legislative Decree n. 494 of 1996), as well as those for drawing up the Safety and Coordination Plans, carrying out specific training programs for employees involved in planning and those in charge of worksites. At the request mainly of other companies, such as Endesa and Sogin and with the coordination of the Parent Company, a new revised edition was published during 2003 of the Memorandum of Understanding regarding the prevention of electrical risk for activities in borderline and interference areas concerning electrical work in borderline areas of the electricity network. The new edition includes regulations regarding the testing of plants. It is extremely probable that in the future other companies will subscribe to this memorandum.

## Human-resource search and selection

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In order to strengthen the activities of human-resource search and selection and to ensure that there is a uniform interface with schools and universities, in April 2003 the Parent Company instituted inside its Department of Personnel and Organization a unit dedicated to Selection and Relations with Universities, which systematically governs the process of search and selection from the external market according to the indications and requirements of the individual divisions and companies. The objective of selection at Enel is to ensure that the chosen candidates correspond to the expertise expected for the various entry roles and to make the Enel trademark extremely desirable in the most valuable segments of the labor market.

The selection processes are differentiated according to the nature and number of the positions to fill. For positions to be filled by candidates who have just graduated from a university or specialized school, Enel requires both group tests (of aptitude as well as of technical and professional competence) and individual interview with the Personnel Department and with the units to which they would be assigned. New hires have been dedicated in particular to reinforcing core business activities, with the objective of improving service quality, strengthening the main activities of the productive cycle and supporting the quest for efficiency and excellence.

## Relations with universities

During 2003 Enel actively cooperated with the principal universities and specialized schools through:

- > support for the educational initiatives considered to be the most interesting (for example, newly instituted master's programs), including financial contributions and provision of speakers and teachers.
- > offers to about 600 new graduates and graduates enrolled in post-graduate

courses of the possibility to have brief but significant work experiences (internships, project work) at the Company.

In addition, Enel cooperated with students about to graduate who were working on their thesis by identifying internal contacts in the who helped the students investigate topics related to the Company's business.

## Resource management

### Development and training

 94-95

The initiatives in this regard all aim to bring out personal potential, disseminate the basic values of the corporate culture, and consolidate professional and managerial capabilities. In a perspective of close integration of development and training, much attention has been dedicated to growth paths for professional families and cross-company communities. In particular, initiatives of an institutional nature aimed at the development and consolidation of capabilities have been undertaken for

employees just out of university, newly appointed supervisors, supervisors being considered for promotion and newly appointed executives. Among them is a development and training project addressed to supervisors being considered for promotion, which involved about 250 people who participated in a development center aimed at identifying and developing managerial capabilities and in a general management training program with special emphasis on the energy business. In the second half of the year a new on-line system of capability assessment was perfected which will contribute to reinforcing the culture of assessment through the possibility of systematically gathering information on the capabilities possessed in the present role, a performance summary and potential for development. Beginning in 2004, the activity of capability assessment will concern executives and supervisors in addition to targets to be identified each time by professional families. Design of a new on-line system for assessing potential was begun, which is scheduled to be used starting in 2004 with regard to new university graduates and newly appointed supervisors with the objective of fostering their professional development in a way that is consistent with their capability profiles. A process of management review was initiated, in which executives and supervisors with a high level of potential have been involved. Providing for the systematic collection of information on assessment results, professional history and performance consistency, the process is aimed at the creation of an adequacy map of by population cluster and the filling of key positions through the identification of successors.

As far as training is concerned, the Company plans to develop and make better use of corporate capabilities through provision that is personalized according to the needs of the resources and coordinated systematically. In particular, the aim is to create training programs integrated with growth plans and dedicated to supporting the development of the capabilities necessary to excel in the core business. In 2003 there was a significant increase in the number of training hours per employee, which was due to the numerous initiatives in support of the processes of change and organizational development. In addition, specific processes were established for consolidating and/or disseminating know-how concerning different companies in the Group, including through greater use of distance learning. In particular, there was an increase in the share of distance learning per person with respect to the total number of training hours (from 4.3% in 2002 to 10.09% in 2003). Beginning on February 3, 2003, EDLS (Enel Distance Learning System) – an integrated system for distance learning created and managed by Sfera – has been accessible from the homes of Enel employees, who can thus take advantage on Internet of courses and instruments previously available only on the intranet.

## Internal communication

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The task of internal communication is to create and develop a system that enables the content of the Company's mission and objectives to be transmitted.

Besides traditional instruments like internal postings, the internal newspaper and seminars, internal communication at Enel utilizes innovative instruments such as the intranet, Web TV, and knowledge-management systems. During 2003 a comparison was carried out at the European level, which examined the role and the instruments adopted by the leading companies in the energy industry. At the Company level, an analysis was made of the internal public, segmented according to access to the various instruments and the information requirements of the different professional communities. In this context, the existing instruments were reorganized and new ones were planned as to reach the various segments of the public with all the information that is essential for corporate life. Among the most significant initiatives were:

- > the introduction of new sections on the corporate-wide web, the intranet channel dedicated to communication with Enel's internal public. The portal presents a great variety of content, organized into macro-categories, to satisfy the different needs of the internal public: information of an organizational/corporate nature, training courses, and useful service;
- > the extension of broadcasting time on Enel's Web TV until midnight so that all Enel employees, including shift workers, to watch

Company television. To this end adjustments were designed at the infrastructure level to allow both the management of the scheduling and the improvement of the quality of transmission reception. In addition, the 2003 Web TV publishing plan tried to increase the presence of strategic content, but also to dedicate more space in the programs to issues pertinent to people's everyday work;

- > the start-up of a project for a Company magazine, the main aim of which is to make Enel's mission a reality that is subscribed to by all those who work there, so that they become agents of the new corporate image. The choice of the name, " Enel Insieme" , is meant to generate and strengthen the sense of corporate belonging. In effect, only by involving its human resources and making them aware of their role and of the values that drive the organization, can the Company achieve its business objectives; The magazine will be published monthly (the first issue came out in February 2004), in both electronic and paper editions, the latter for all those who do not have access to the intranet. Distribution of paper copies takes place at the same time as the distribution of the pay coupons;
- > the designing of the cascade process of communication, which is replicable with few additions or modifications and ensures that information flows along the hierarchical chain from head to those under him or her.



## Equal opportunity

The collective contract for the electricity industry, signed in July 2001, confirms that the duties of the equal-opportunity committee (consisting of an equal number of management and union representatives), which was established in Enel as long ago as 1989, is to carry out investigations and to make proposals to the parties. The objectives that management and the unions intend to pursue is to foster the professional development of the women who work at Enel and to ensure that opportunity in working conditions is in effect equal.

To this end, the collective contract establishes – in addition to the pre-existent corporate bodies – a committee with equal representation “ on the issue of the condition of women workers and the achievement of equal opportunity” with the task of:

- > promoting and carrying out investigations and research in general on the situation of the women who work at the Company;
- > promoting – among other things, on the basis of the bi-annual reports referred to in law 125/91 – the periodical statistical survey of the situation in the company of women in different positions of employment, as well as the monitoring of the related training and career paths;
- > encouraging the company to initiate projects for positive actions;
- > carrying out checks and reviews of projects for positive actions and other issues as they

are identified within the province of its activity. As in the past, during 2003 the subject of the professional development of women and the use of a gender perspective for organizational analysis, were continually considered and monitored by Enel’s equal-opportunity committee, including through its participation in research, projects and initiatives at the national and European level. In 2004 the committee – to which new members were appointed – will continue its activity of analysis and making proposals to the parties, emphasizing the planning of organizational changes to satisfy concrete needs and with specific attention dedicated to the problem of reconciling work life and family life. Among the goals selected for 2004 priority will be given to strengthening connections with national institutions, increasing teamwork among the corporate equal-opportunity bodies, and disseminating more and more the gender perspective in the Company’s policies and strategies.

Women at Enel (at December 31, 2003)

	Electricity and gas	TLC	Total
Executives	37	23	60
Supervisors	600	156	756
White-collar	6,866	3,899	10,756
Blue-collar	27	-	27
Total abroad	205	-	205
<b>Total</b>	<b>7,735</b>	<b>4,078</b>	<b>11,813</b>

## Social institutes

In the more than forty years since its incorporation, Enel has developed – through a series of social institutes – an effective system of assisting the people who work at the Company (blue- and white-collar workers, supervisors and executives). Over the years this system has developed to the point where it is now a complex series of activities, initiatives and services, which range from

complementary pension funds and supplementary health insurance to various kinds of insurance coverage, cultural activities, sports, special maternity benefits and concessionary loans to personnel.

**Industrial relations** Enel's management of industrial relations constitutes one of the features that distinguish it on the Italian scene. Aware that they are providing a strategic public service, the Company and the union organizations have demonstrated for some time their reciprocal interest in a high-profile system of industrial relations. While their roles, responsibilities and spheres of autonomy are distinct, the parties agreed on the advantageousness of establishing a regulated system of industrial relations and contractual arrangements in order to reconcile in the best way possible the objectives of the Company and the interests of the people who work for it. The Industrial Relations Agreement characterizes Enel as one of the large Italian companies that manage – together with the union organizations – a regulated system of information, discussion and consultation on the most important issues of mutual interest. Its management has developed and consolidated an effective network of relations between the parties at all levels that has allowed numerous disputes of significant corporate and social importance to be governed and headed towards a solution. During the year Enel signed several important agreements with the union organizations representing workers in the electricity industry:

- > March 10: an agreement aimed at rationalizing relations with the union organizations, which provides for regulation of the levels, matters, and operating procedures regarding union intervention, especially locally;

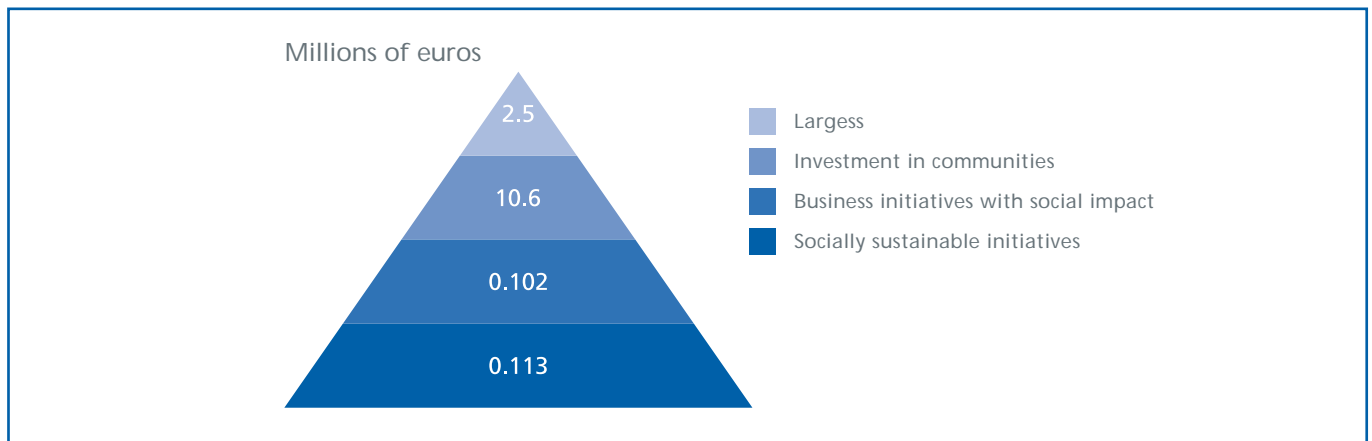
- > May 6: signing of the agreement regarding the equiparation of the gas-industry contract;
- > June 6: agreement concerning the corporate results-based bonus for the year 2002, according to which individual payments are maintained at the same level as that of the previous year;
- > July 8: memorandum of understanding regarding hiring. On this matter the Company committed itself to hiring 1,500 people over a period of 18 months;
- > July 31: agreement on the renewal of the economic part of the electricity-industry contract (average increase of 110 euros a month per person in three stages);
- > December 1: a new industrial-relations agreement at Enel, which replaced all the various agreements that had gone into effect over time with a single consolidation act. This text adjusts Enel's system of relations to the new reference context;
- > December 1: new rules regarding leaves for union work through a five-year agreement, which provides in particular for the gradual reduction of the number of hours available for such leaves and the number of union representatives;
- > December 10: provisional agreement on the results-based bonus for 2003 pending the establishment of a more modern and effective system of incentives as part of second-level bargaining.

## Communities

- > Economic commitment to communities
- > Relations with interest groups
- > Relations with national and local institutions
- > Relations with international organizations

### Economic commitment to communities

At the same time as it was planning its first Sustainability Report, for 2002, Enel decided to adopt an international benchmark standard in order to offer an overall, structured view of its projects and initiatives in support of local communities: the London Benchmark Group (LBG) model. Enel has traditionally distinguished itself on the Italian scene – and increasingly on the international one as well – as a company that is attentive and sensitive to social development, and this model enables the Company to ensure continuity and underlying consistency between strategic corporate objectives and social ends. The LBG methodology allows the identification and classification of all the initiatives the Company undertakes in support of the local communities in which it is present by identifying four main categories of social contributions to communities. The latter are characterized by the different possibilities of measuring the benefits and returns both to the activity and to the communities: largess, investment in communities, business investment with social impact, and socially sustainable initiatives. Enel's economic commitment to communities grew significantly in 2003, rising to about 11,390,000 euros, with an increase of almost 340%.



#### Largess



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A characteristic aspect of these contributions is their character of largess and gratuitousness. Thus there is no obligation to perform anything of an economic nature in return on the part of the beneficiary, who is obliged only to use the resources assigned for the established purposes. The contributions, both in money and in kind, are assigned to not-for-profit associations with valid bylaws and articles of incorporation and to bodies and institutions whose legal status does not allow them to bill for their services. Proposals are authorized by Enel's Chief Executive

Officer and are meant to support projects and initiatives that have significant cultural or charitable value, are of national interest or, in any case, involve large numbers of citizens. In 2003 Enel earmarked resources in the amount of 2,488,000 euros to purposes corresponding to the concept of largess, of which about 560,000 went to Enel Cuore Onlus and about 1,928,000 to several initiatives, among which special mention should be made of the contributions to the Fondazione Teatro alla Scala and the Accademia Nazionale di Santa Cecilia.

## Investment in communities

 83-85

Investment in communities is particularly important for Enel, a company that is present throughout Italy and is deeply rooted in specific places with its power stations: a formidable, but at the same time intrusive, presence.

This widespread presence determines Enel's need to make itself known as an essential component of not only the economic and industrial, but also the social fabric. Enel's plants are not islands, but places where people work and spend much of their lives contributing to the welfare of the citizens. In 2003 Enel's investment for these ends amounted to about 10,600,000 euros. Among the undertakings carried out in 2003 mention should be made of:

**Nature and Territory.** This program is run by Enel in cooperation with institutions, regional and local governments, tourist bureaus, federations, and environmental and sports associations, and aims to enhance the environmental, tourist and recreational aspects of the areas adjoining electricity generating, transmission and distribution plants. The program consists of projects aimed at learning about the environment, the study of the local area, and the development of sports and recreational activities.

**Open doors at the power station.** Created in 2001, this program opens the doors of power stations to anyone who wants to visit them. Guided tours facilitate learning about and getting to know their main components. The power stations also frequently host artistic and cultural events such as concerts and art exhibitions. Thus a visit to a power station becomes an important occasion of connection with the local area. In 2003 there were over 350,000 visitors, an increase with respect to the 200,000 visitors in 2002.

**Net Point.** Inside power stations several areas have been equipped with personal computers, which are available for surfing on Internet. Access is free-of-charge and surfing is assisted by tutors from local cooperatives of young people and schools, who also give courses of basic computer skills to those who are interested. The objective is to give the people who live in the area where the power station is located an opportunity to practice surfing on Internet and develop research projects. A visit to a power station thus becomes an important occasion for connecting with the local area. A total of 40,000 accesses were recorded at the nine Net Points located throughout Italy.

**The Music Project.** In 2003 Enel became a founding member of the Foundations of the Accademia Nazionale di Santa Cecilia, the Teatro alla Scala and the Accademia d'Arti e Mestieri dello Spettacolo. This was the context that gave birth to the three-year project called "This time we'll bring the music, you bring the light", which intends to offer a network of places or occasions for promoting classical music and young musicians throughout Italy, in unusual places like power stations and in small towns that are often excluded from the circuit of great music. From June to November 15 concerts were sponsored featuring small ensembles and orchestras from the two academies, which were attended by about 12,000 people.

**The Soccer Project.** With "And yet, a soccer player's most important muscle is the heart" as their slogan, Enel and the National Amateur League joined together in a two-year project that, beginning in 2003-2004, regards all the leagues and tournaments from the D series to

those for 5-player teams, women and the various regional ones. The objective of the cooperation is to promote amateur soccer's genuine values through the awarding of prizes to the best players in terms of ability and fair play on the field, the best teams in terms of fair play, and the best fans in terms of how they receive the visiting team. More than 13,000 clubs, 1,700,000 members and 2,000 playing fields all over Italy have been involved.

**Enel and Academia.** Of particular importance, from both the point of view of numbers and that of quality, is the participation – with speeches and papers – of Enel's management in conferences, congresses and study days organized by universities and other institutions.

The subjects discussed are connected with Enel's business and range from economics, company law and corporate ethics to new technologies, the progress of scientific research, energy, and communication and telecommunications. The Company's partners include Borsa Milano, Luiss, Bocconi, the Pontificia Università Lateranense, and the Universities of Perugia, Ancona, Bologna and Siena, with the numerous participation of the CSR unit for the presentation of Enel's first Sustainability Report and on the beginning of a deep integration of social responsibility with the Company's strategic growth plans. There have been a total of 382 presences on these occasions, of which 106 regard management of the Parent Company and the rest those of the Divisions and subsidiaries.

## Business initiatives with social impact

Enel sponsors social, environmental and sports events that regard entertainment and art. When the events take place, the sponsored entity is obliged to publicize the Company's product, its trademark or, in any case, its business.

The events sponsored must have a high cultural value, be of national interest or, in any case, involve a large number of citizens and must initiate with important organizations that can guarantee quality. In addition, such initiatives must provide for Enel's participation from the planning stage so that its presence is not limited to sponsorship in the narrow sense, but takes the form of an active role.

On the basis of these principles, in 2003 Enel invested about 103,000 euros in sponsorships. One of the most important projects involved Enel's participation in the conference "Electricity in the home: safety, efficiency and innovation", organized by Adiconsum Nazionale and held in Rome on November 20, 2003. During the conference a consumer's guide to the safe, appropriate and rational use of electricity was presented.

In addition, on January 22, 2004 Enel Sole's new lighting for Mario Sironi's stained glass window was presented. Created around 1931, the window decorates the entrance hall of the Palazzo dell'Industria, the seat of the Ministry of Productive Activities, and illustrates the Charter of Labor of 1927. The lighting system simulates daylight and allows the different scenes depicted to be enjoyed even when it is night.

## Socially sustainable initiatives

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For Enel, light is daily business, service and image, but also the means of communication par excellence. The figurative arts and architecture exist in light even before they exist in space. Hence the "Light for Art" program, through which Enel has demonstrated that light is an essential resource for communicating and increasing the value of Italian monuments: from San Marco in Venice and San Francesco in Assisi to the Vatican Necropolis and St. Peter's Tomb and the archeological excavations at Pompeii. The "Light for Art" program, organized and carried out by Enel Sole, intends to promote

the cultural and economic development of the areas concerned by making Italy's art and landscape more alluring through quality lighting. In 2003 Enel earmarked about 113,000 euros for purposes ascribable to the concept of socially sustainable business initiatives.

Mention should also be made of the studies on combustion carried as part of Enel Ricerca's projects in cooperation with the Department of Neurosciences of the University of Pisa, which have produced an innovative method for analyzing Parkinson's disease.

## Relations with interest groups

The social groups with which Enel has systematic relations are constituted by over 50 national associations, which represent the world of small and medium-sized firms, labor and professional categories, consumers, environmentalists, and local governments. Through its system of relations, Enel constantly repositions its corporate behavior with respect to the needs of the interest markets. Among the activities and projects carried out in 2003, the most important were:

- > research with the School of Management of the Guido Carli Luiss University aimed at developing systems for managing customer relations in the context of corporate social responsibility policy. The results of this project have been compared with similar experiences in the management of relations by European and international companies;
- > the signing on February 5, 2003 of the agreement on the Remote Manager project with the 14 associations of the National Council of Consumers and Users, which was constituted at the Ministry of Productive

Activities by Law n. 281 of July 30, 1998. As part of this agreement, Enel – after receiving the proposals put forth by the consumer associations and informing the Electricity and Gas Authority – arranged with the associations a series of initiatives that in a short time have enabled the Company to gradually reduce the inconvenience reported by several customers with the installation of the new electronic meters;

- > the agreement on cooperation with Cittadinanzattiva and Unione Nazionale Consumatori regarding the information customers receive on the installation of the electronic meters which, in addition to the normal advice on the material distributed to customers and the activity of the two telephone services dedicated to information, provides for a cycle of 20 encounters at the province level to ensure more effective and widespread assistance regarding information for the most sensitive categories of citizens on the meter-replacement campaign;

- > Enel's project for firms consisting of a cycle of 12 inter-regional encounters with the heads of the most representative organizations of entrepreneurs (small and medium-sized firms of Confindustria, Confapi, Confagricoltura, Coldiretti, Cia, Confcommercio, Confesercenti, Confartigiano, Cna, Casartigiani, Clai) of all the regions of Italy, which were held in cooperation with Unioncamere at Chambers of Commerce with the objective of learning about the needs of small and medium-sized local businesses, gathering ideas and suggestions, and laying the foundations for an alliance between Enel and such firms in order to foster their growth, competitiveness and innovation beginning with their local context;
- > an action of consultancy and partnership with businesses carried out all over Italy at the local level in cooperation with Confartigiano, on energy issues. As part of this action, in

December 2003 Enel organized a seminar on "Energy supplies during the work in progress of liberalization: focus on the 2004 market", to inform and educate the national cadres of Confartigiano on the liberalization of the electricity and gas markets;

- > the institution of talks with environmentalist associations on the topic of electricity generation from traditional and renewable energy sources. In an atmosphere of reciprocal cooperation, the issues that Enel examined during the encounters with the associations regarded the possibility of achieving greater efficiency in the use of renewable sources, the problems involved in developing new plants, and Enel's supply in the field of distributed generation. Among the results of these talks mention must be made of the intense activity of informing the associations about geothermal production, which involved all the local committees in Tuscany.

## Relations with national and local institutions

Relations with the central institutions of the government are managed through a dedicated department, which is entrusted with:

- > representing Enel in the seats of institutions and creating the appropriate links with the various Group companies;
- > assisting the top management in its relations with central government institutions;
- > assessing the implications for Enel of directives of the national Civil Service;
- > reviewing acts of Parliament regarding regulation and supervision with the objective of assessing their implication for Enel and preparing responses together with the other Group companies.

These duties are performed through the following activities:

- > acquiring information about and following the legislative and executive actions concerned;
- > preparing – together with the other Group companies and the departments concerned – proposals for revising regulatory acts under discussion;
- > elaborating – together with the other Group companies and the departments concerned – responses to regulatory or supervisory proposals presented in Parliament.

**The Marzano bill**

In order to reorganize and reform the energy industry and taking into account the proposals that emerged during the fact-finding investigation of the industry conducted by the Productive-activities Committee of the Chamber of Deputies, in October 2002 the Minister of Productive Activities presented a bill aimed at:

- > establishing the authority of the national government and that of regional governments in the light the provisions of the new Title V of the Constitution;
- > establishing the relations between the executive branch of the national government and the industry Authorities;
- > completing the process of market liberalization;
- > increasing the efficiency of the internal market.

Approved by the Chamber of Deputies and in January 2004 by the Industry Committee of the Senate, the bill has gone to the floor of the Senate and will probably be approved by the latter before the summer break.

**Cooperation with national technical associations**

With the objective of assessing the reliability and significance of certification, Enel decided to actively contribute to the latter's proper functioning by intensifying the participation of the Company's representatives in the elaboration of standards and guidelines regarding quality, in particular through:

- > an active presence in the Italian (UNI and CEI) and international (ISO, CENELEC, and IEC) bodies that are entrusted with establishing the standards;
- > participation as a promoting partner in SINCERT (a body that accredits certification agencies) with a representative on its Board and its Guidelines and Supervision Committee;
- > signing of an agreement for a Single Accreditation Agency for certification bodies (SIAC);
- > membership on the board or on the certification committee of several of the most important Italian certification institutes (IMQ, ICIC, ICIM, ICMQ).

The correct and complete implementation of a quality system meeting the UNI EN ISO 9001:2000 standard is one of the essential requisites that Enel requires of a company in order for the latter to qualify as a supplier of the Company. Enel hopes that the certification system attains a degree of reliability high enough for it to replace direct verification, so that turning to a supplier with a certified quality system represents a choice that is not only qualitatively, but also economically advantageous.



## Relations with local institutions

Relations with local institutions are managed by a dedicated department that, together with its on-the-spot representatives:

- > coordinates relations with local institutions;
- > analyzes and evaluates, together with the departments and companies concerned, the impact on Enel of the activities of local institutions;
- > develops group synergy so as to ensure unified and systematic management of relations with local institutions;
- > examines regional laws regarding energy and proposals and actions of regional governments in order to evaluate the impact of regulations as they develop.

These duties are performed through activities regarding:

- > the management of actions and relations of interest to the Group in local areas;
- > assistance to the operating Companies to resolve problems, among other things by organizing meetings and promoting joint actions aimed at reaching agreement with local institutions. In particular, through the department's local representatives a constant dialogue is maintained with the area and its institutions aimed at explaining Enel's strategies and organizational transformations, as well as understanding in advance the regulatory policies of local governments.

Among the initiatives carried out by the department mention should be made of:

- > assistance to Terna in the procedure to obtain permits for the Matera-Santa Sofia line;
- > coordination of activity regarding local institutions in the projects for converting the Civitavecchia, Porto Tolle and Termini Imerese power stations;
- > coordination of the regional government of Sicily, local institutions and the concerned Group Divisions for the electrification of Ginostra, on the island of Stromboli;
- > monitoring the decentralization process now in progress of departments and duties of the national government to regional governments.

## Relations with international organizations

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Enel participates in all the most important international associations related to its business. The most significant memberships in terms of active commitment are those regarding:

- > Eurelectric (Union of the Electricity Industry), which comprises the electricity companies of 42 European countries (EU and central and eastern Europe);
- > E7, which consists of the 9 largest electricity companies of the G7 to promote and carry out projects regarding investment and training for sustainable growth in the electricity industries of less developed countries;
- > OME (Observatoire Méditerranéen de l'Énergie), whose purpose is to develop cooperation among the energy companies that do business in the Mediterranean basin;
- > Medelec (Comité de Liaison Méditerranéen des Associations d'Entreprises d'Électricité), which promotes common interests of the electricity industry in the Mediterranean area in relations with external institutions;
- > World Economic Forum, an international foundation that brings together the 1,000 most important economic, institutional and academic organizations in the world for the purpose of raising the world level;
- > EFET (European Federation of Energy Traders), whose objective is to improve the conditions of selling energy in Europe;
- > OCIMF (Oil Companies International Marine Forum), which comprises the main oil majors and national and international oil producers for the purpose of promoting activities aimed at the safety of transportation by sea;
- > GIIGNL (Groupe International des Importeurs de GNL), which brings together more than 40 importers of GNL (liquid natural gas) from 15 different countries in Europe, America and Asia;
- > ASPEN INSTITUTE ITALIA, whose objective is to internationalize the entrepreneurial, political and cultural leadership of Italy and promote open discussion among different cultures;
- > WEC (World Energy Council), which promotes sustainable energy use in terms of environmental impact in cooperation with other organizations in the energy industry;
- > ICC (International Chamber of Commerce), which contributes to the development and improvement of international economic relations among the various economic players;
- > RECS (Renewable Energy Certificate System), whose purpose is to create a market for renewable energy in Europe.

## Human resources

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### Injuries

In 2003 10 persons working at Enel were seriously injured, 4 of them fatally. Of the latter, three were connected with road accidents and only one with work. The total number of on-the-job injuries regarding human resources decreased considerably in 2003, as shown in the attached graphs. In particular, at 9.7 the frequency rate was under 10 for the first time since 1963. Even though they declined, the number of serious and fatal accidents that occurred during the year to persons working for suppliers and third parties was still significant: 37 (18 fatal) and 67 (48 fatal), respectively. It should be emphasized that many of the injuries to third parties (about one-third) were due to road accidents, generally collisions of vehicles with Enel installations and thus not connected with specific work activities or activities pertaining to the Company. This entails Enel's continuing commitment to the extension of safety standards to its suppliers. The OHSAS process of workplace certification, initiated by Enel in 2002, currently covers 64% of the Company's total. The process of certifying the GEM Division is being completed and should be over by the end of 2006, increasing the number of human resources who work in certified workplaces to over 80% of the total.

### Enel Insieme

"A magazine capable of performing a function of discussion and authentic exchange of expertise and reflections on our role. [...] a recognized and welcome intermediary for learning more about the 'jobs next door', the ones that our less direct colleagues perform, the Group's strategies, its results." (Piero Gnudi)  
"Enel Insieme, because together ("insieme") we have to know where we're

going, what our function is, and which is the way towards our common objective." (Paolo Scaroni)

### 2003 hiring plan

On July 9 Enel launched a plan for hiring 1,500 young people, with the objective of achieving a more balanced distribution of human resources in terms of age brackets and to enhance service quality. The plan provides for the hiring of blue-collar workers and technicians with training-work contracts to take place over a period of 18 months. The newly hired human resources will be used in particular to improve the distribution network.

### Knowledge management

The year 2003 saw the continuation of the knowledge-management project, which is aimed at transforming the corporate intranet from an instrument used passively to gather information into a place of continuous work and exchange for efficiently creating, managing and using corporate knowledge. The project has developed taking into consideration:

- > the necessity of making available to individuals an environment that facilitates cooperation and the dissemination and development of expertise and access to the instruments necessary for them to perform their roles and for their professional development;
- > increasing efficiency in terms of cost and time through the improvement of operating processes and new ways of providing services;
- > the improvement of the flow of information between the Parent Company, Operating Divisions and Companies.

The development of the system, which is scheduled for completion by the end of 2006, will be accompanied by the implementation of training plans and of change management to support the cultural change required. Three experimental projects will already be underway in 2004.

### Recreational, cultural and sports activities

The human resources (blue- and white-collar workers, supervisors) covered by the national contract of workers in the electricity industry may use the services managed by the ARCA Association, while the ACEM Association manages similar activities for executives. Also present is the ANSE Association, which offers similar services to older workers, both retired and still working.

### Supplementary health services

For human resources covered by the national collective contract of workers in the electricity industry (blue- and white-collar workers, supervisors) the supplementary health services are managed by the FISDE Association, while for executives similar services are entrusted to the ASEM Association.

### Complementary pension coverage

Forms of complementary pension coverage are available at Enel through the creation of special pension funds: FOPEN for human resources covered by the national collective contract of workers in the electricity industry (blue- and white-collar workers, supervisors) and FONDENEL for executives.

### Insurance coverage for human resources

The Enel Companies cover their human resources (blue- and white-collar workers, supervisors, executives) with special insurance policies, according to the total amount of their pay, against the risk occupational injuries, non-occupational injuries, personal civil liability for third parties or other men or women working at Enel while carrying out the duties entrusted to them. There is also an insurance policy especially for human resources on missions abroad.

### Loans for human resources

Loans may be granted to men and women working at Enel (blue- and white-collar workers, supervisors, executives) for the

purchase of their first home or for serious family needs in the maximum amount of, respectively, 25,822.85 euros and 7,746.85 euros.

### Maternity benefits

The women who work at Enel (blue- and white-collar workers, supervisors) under the national collective contract of workers in the electricity industry receive extra benefits with respect to those provided for by the law in case of maternity. For their obligatory abstention from work such women receive a maternity indemnity amounting to 100% of their pay for the month preceding the one in which the abstention begins, while for optional abstention the maternity indemnity amounts to 45% for the first month, 40% for the second and third month, and 30% for the following three months.

### Loyalty bonuses

The Enel Companies grant their human resources (blue- and white-collar workers, supervisors and executives) who accrue 25 or 35 years of service a loyalty bonus amounting to, respectively, one-third of and the entire monthly pay they are receiving when they reach the threshold of seniority. In addition, a silver medal for 25 years of service or a gold one for 35 years is awarded to each of these human resources in acknowledgment of his or her individual contribution to the Company's growth.

### Agreement on social actions

The collective contract of workers in the electricity industry provides for the adoption of several measures – unpaid time off, leaves of absence, special work hours – in favor of human resources engaged as volunteers in carrying out an activity or function with special social and humanitarian significance (social solidarity, civil defense, cooperation with less developed countries) and those who find themselves in situations of need that

deserve assistance. In addition, the Enel Companies may grant extraordinary financial assistance when particularly serious events strike the human resource or a member of his or her family (serious illnesses, disabilities).

### Advances on termination indemnities

Provision is made for repetition of an advance on termination indemnities for medical expenses, as well as an advance for the purchase of a first home for human resources or their children, for purchases from third parties, construction, renovation to make a home inhabitable or safe, and for work done to remove architectural barriers.

### ANSE's volunteer activities

Among the most significant projects in Italy during 2003 mention should be made of:

- > work to eliminate architectural barriers in Sardinia;
- > the "A tu per tu con l'energia" initiative, as part of actions aimed at making known to the public at large how hydroelectric energy is produced in Belluno province;
- > the assistance provided to elderly people who live alone, to patients with terminal cancer, and to patients suffering from heart disease, through a special telephone service and live-voice telephones.

ANSE is also active abroad, for example:

- > in Palestine, with the Ain Karim Project for the construction of a children's day hospital, which is nearing completion;
- > in Tirana, to train young Albanians as electricians so that they can repair electricity systems;
- > in Madagascar, for a project to install electric, hydraulic and solar-panel systems for both producing electricity (in a place where it is practically inexistent) and pumping water from wells, as well as to teach the techniques necessary for operating the systems;

- > in Zambia, for activities connected with the maintenance of electricity plants and the construction of public-lighting networks;
- > in Tanzania, for a project to electrify a school and a hospital in the village of Bomalang'Ombe;
- > In Peru, for a project of rural electrification in the Cordillera Blanca.

## Communities

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### Enel Cuore Onlus

As part of its activities for society and communities, in 2003 Enel founded a Socially Useful Not-for-profit Organization (Onlus) called Enel Cuore ("Heart"), with the objective of collecting and distributing funds for charitable projects. The guidelines of the Association are: prior analysis of the social needs concerned, great attention to people and social and environmental contexts, absolute transparency of the funding, verification of the process of contribution and the results achieved. Enel Cuore avails itself of contributions from the Enel Companies, which in 2004 will put at its disposal a total of 6 million euros. The first executive projects regard cooperation with the Sant'Egidio Community to ensure an increase in home assistance for the elderly in three Italian cities and support for the Meyer Foundation in Florence for the creation of a welcome center in the city's pediatric hospital. Characteristics of the projects supported by Enel Cuore Onlus are their long-term validity and the organizational and executive capabilities of the partners involved.

### "Il Giornale della Sostenibilità"

Enel's commitment to the dissemination of the principles and initiatives of corporate social responsibility has been strengthened by the publication, since November 2003, of "Il Giornale della Sostenibilità", an on-line

monthly dedicated not only to Internet users who want information on the subject, but also scholars and, not least, the people who work at Enel. "Il Giornale" has become a reference point for more than 8,000 visitors a month of Enel's site, with reading sessions lasting an average of more than 17 minutes. It aims to ensure the continual updating in the communication of Enel's economic, environmental and social responsibility and encourage comments and discussion. At the same time, it allows both the internal and the external public to accompany Enel in the maintenance of the commitments it has made and in the defense of and respect for human rights. The monthly is organized into articles dedicated to subjects regarding Enel's commitment to sustainable growth and columns – Comments, The words of sustainability, From words to deeds – that analyze the sustainability of Enel and others, the terminology used in discussing corporate social responsibility, and the exemplification of being sustainable. In addition, the events regarding sustainability and the press review are updated every month.

"Il Giornale della Sostenibilità" can be consulted and downloaded at: <http://www.enel.it/sostenibilita/giornale/magazine.asp>.

### The Nature and Territory program

Among the projects developed in cooperation with environmentalist associations during the six years of Enel's Nature and Territory program mention should be made of the following:

- > the more than 110 Electricity and Nature Trails, hiking paths where signs have been installed that describe the characteristics of the trail and its environmental setting, as well as the main technical data and those regarding the functioning of the power stations. In the areas with the greatest environmental interest, Enel – together

with the WWF Italia and the LIPU – has also contributed to the creation of nature reserves and new protected areas entrusted to Legambiente following the memorandum of understanding "Electricity in the Parks", which was also signed by Federparchi and the Ministry of the Environment;

- > the Girarifugi, supported by Enel together with Assorifugi Lombardia with the objective of promoting a use of the mountain environment that is more informed and compatible with the environment;
- > the Teaching Farm at Farfa, which is part of the "Paesaggi di Passaggio" program, whose purpose is reclaim and protect the agrarian landscape in an area that has been able to preserve its beauty and specificity;
- > the mountain-fitness trails in the Gesso, Susa, Introna and Formazza valleys, a project developed by the Federation for Sport at Altitude, whose aim is to promote mountains as a sports gym and a source of health and well-being;
- > the "A tu per tu con l'energia" visits, excursions and events, between the Soverzene and Malga Ciapela power stations and the Pieve di Cadore and Fedaia dikes;
- > the world-cup free-climbing competition on the wall of the Malga Bissina dike;
- > the third Enel Gino Bartali trophy, a bicycle race on the roads of the Garfagnana area;
- > the competitive sports activity at the Centro Nautico Enel at Presenzano, which was classified in 2003 by the Italian National Olympic Committee as a preparatory center for sports and by Italian Triathlon Federation as an inter-regional youth center for the promotion of aquatic sports and the triathlon among young people.

In addition, among the projects carried out in 2003 were:

- > Enel's "Nature and Territory" guide and

Slow Food Safeguards Month.

Cooperation between Enel and Slow Food - dedicated especially to food-and-wine culture, with particular emphasis on the protection of biodiversity – began in 2003 with Safeguards Month and the "Nature and Territory" guide. Between May and June 120 thematic dinners were promoted in order to get to know several Italian and international safeguards protecting biodiversity. Over 100 naturalist, sports and cultural itineraries were gathered in Enel's guide "Nature and Territory" together with the food-and-wine itineraries recommended by Slow Food. A total of 20,000 guides were distributed free-of-charge throughout Italy during events sponsored by Enel and also made available to the public at Qui Enel outlets, in mountain communities, and public libraries;

- > The special green event "Naturalmente accessibile". During the European Year of the Disabled, Enel and the Italian Federation of Parks and Nature Reserves, in cooperation with the FAI, Italia Nostra, Legambiente, Lipu, WWF Italia, CTS and Fish, Fiaba, Fand sponsored a competition of ideas for creating a model center of mobility, education and information to make it possible for the disabled to access and enjoy protected natural areas. The competition intends to enhance and integrate the best practices existing and that can be achieved in this field: from eliminating architectural barriers to the provision of manual and electric means that can also be used by the elderly and the creation of instruments of environmental education and interpretation in visitors' centers (animal cut-outs, tactile exploration of relief maps) that can also be used by children and the blind. Twenty-two regional parks and reserves participated in the competition, and the prize of 10,000 euros was awarded in 2004 to the Monte Rufeno regional reserve in Lazio,

while the project presented by the Zompo Lo Schioppo regional reserve in Abruzzo received special mention. Enel will also give a contribution of 40,000 euros to the best project if it is implemented by December 31, 2004.

### **“Magnetic Shapes” exhibition – Sculptors at the Power Station**

From August 2002 until the end of 2003, a traveling exhibition was held in the Torrite in Garfagnana, Piombino, Sanata Barbara and Montalto di Castro power stations. Organized by Giuseppe Cordoni in cooperation with numerous internationally known artists, it constituted an important part of Enel’s commitment to the promotion of art and beauty. The idea was to create an itinerary combining the wind of the Maremma area of Lazio with water, fire and earth in a partnership between art and technology that was as unusual as it was stimulating. More than 38,000 people visited the exhibition at the different power stations.

### **“Many Homelands, one Homeland” exhibition**

With the patronage of the Ministry for Italians Abroad, from January to March an exhibition was held at the monument to Victor Emanuel II in Rome celebrating the history of Italian emigrants. This unique exhibition enabled visitors to admire a series of works, memoirs, keepsakes and documents connected with Italians abroad. The film section was particularly rich, with material from both public and private collections in Italy and abroad.

### **“Electricity at Play”**

With the start of the school year 2003-2004, Enel launched “Electricity at Play”, a playful educational project dedicated to the world of education to improve knowledge of the electricity system as it is now and contribute to the scientific dissemination of related subjects. In addition to the standard and

multimedia material distributed in a free-of-charge kit, a website presented a game for exploring thematic itineraries and practicing with tests and research activities. Experts from the power stations provided their support in explanations and discussions. In addition, there was a competition for the students divided into a quiz and a project for enhancing the power station in the local area. The initiative was aimed in particular at schools located in areas with a power station. In this first edition, 26 provinces all over Italy with a total 32 generating plants were involved. With 2,700 schools participating in the project, more than 100,000 students were involved and 4,300 kits distributed. The encounters in the power stations - students, families, teachers - also provided a concrete opportunity to inform local communities about the productive activity of the plants in a clear, continuous and transparent way.

### **Enel for the Environment from A to Z**

As part of the XIII International Week of Scientific and Technological Culture, Enel organized a series of events in Pisa, where its Research Center is located, in order to highlight environmental issues and their importance in the development of new technologies. An exhibition with an itinerary was organized which used the letters of the alphabet to explain Enel’s commitment to the protection of the environment and the development of new technologies compatible with it. These issues were also dealt with in a round-table discussion on the role of research in the defense and protection of the environment, in which authoritative representatives of the ministries concerned and of the academic and industrial worlds took part.

### **The international AIESEC conference**

From March 19 to 25, the international AIESEC conference was held at the Bocconi University in Milan. The AIESEC is a worldwide association that brings together

30,000 university students from the five continents and since 1948 has been working to contribute to the development of future leaders understand the value of cultural diversity, are socially responsible and strengthen individual capabilities. The objective of the international conference was to determine the strategic direction of the programs for each of the regions in which the AIESEC is divided through the creation of strategic planning on the basis of the input received from the previous international meeting of the presidents of all the countries that are members of the association.

In addition to supporting the event, Enel participated on the opening day in the round table on the role of corporate social responsibility in the new Europe.

### **Columbia University’s master’s project at Lardarello**

From February 7 to 14, 18 architects from various foreign countries and their colleagues from the schools of architecture of the Universities of Rome and Florence participated in Columbia University’s master’s project on enhancement of Lardarello from the social and urban-design points of view. The scholarly coordination of the event was entrusted to the architect Andrea Bassan on the Italian side and the architect Moji Baratloo for Columbia University. The objective of the project was to analyze and identify planning strategies for the Lardarello area from the social and urban-design points of view. The territory of the valley was divided into six areas corresponding to as many work groups, which studied in depth the physical, social, historical, topographical and architectural stratifications on the spot. The projects will be included in a Columbia University publication that is part of a series that has become a reference point for the world of architecture. In past years, the areas studied as part of the master’s program were the reclamation of the zone of Mostar with its

famous medieval bridge and the conversion of Bagnoli's industrial area.

### **Cinescienza**

From September 7 to 14, a film series entirely dedicated to scientific themes was held at Enel's Research Center in Pisa. Nine cult films were shown, in each of which the main character, science, was matched with important themes such as energy, life, madness, nature, enigmas, society, fear and imagination. Each film was introduced by illustrious figures of the scientific and academic worlds, who discussed the themes of the films and, after the film had been shown, answered the questions asked by the audience. The event constituted an attempt to highlight and bring to the attention of the public at large the value of science and research and the validity of an interdisciplinary approach, which is indispensable for real scientific progress.

### **Education within reach of a mouse**

In March the "Education within reach of a mouse" project was launched in Santo Stefano Magra and Vezzano Ligure. It was the first of its kind in Italy and aimed to give the schools located near the Net Point of the Enel's Eugenio Montale Power Station to get to learn and find out more about the Internet world and the applications of information technology. Part of the Computer Literacy program, the project involved two schools in La Spezia province: the elementary school at Prati di Vezzano and the 29 November elementary school at Belaso. The project comprises two parts, the first one taking place at school and the second at the power station's Net Point. In the respective computer rooms of the two schools, Enel's two Net Point tutors gave a basic computer course for the pupils and teachers in the fourth and fifth grades. At the Net Point, where three more computer workstations were added to the original six and with free access to Internet, the two tutors continued the program in

the presence of the parents of the pupils. These programs also provided the preparation necessary to take the European Computer License. The "Education within reach of a mouse" project is part of a larger cultural and social program sponsored by Enel, which constantly aims to strengthen its ties with the local areas in which it operates.

### **Light for Art**

Enel Sole promotes a new culture of light aimed at enhancing Italy's artistic and landscape heritage. Its lighting projects are characterized by their respect for the environment through the use of lamps and equipment that can project light without dispersion, thus optimizing electricity consumption and avoiding luminous pollution.

The main lighting systems created in 2003 were: the Cathedral of Modena, the Gardens and main courtyard of the Quirinale Palace, Piazza Duomo and via dei Crociferi in Catania, via del Campo in Genoa, and the Cathedral of Terni. In Calabria, 38 historical and artistic sites, including: the Gerace Cathedral, Le Castella at Capo Rizzuto, the church of S.Maria della Consolazione at Altomonte, and the castle and old town of Vibo Valentia.

### **Enel research**

An innovative method for diagnosing Parkinson's disease from research on combustion. Enel has always developed measurement, supervision and control systems capable of monitoring its plants so as to optimize their performance and discover any anomalies in advance. It is in this field – the intelligent analysis of signals and images – that the best opportunities for transferring knowledge and technology to other fields of research, such as medicine. The best example is the method for the advanced diagnosis of Parkinson's disease devised in cooperation with the Department of Neurosciences of the University of Pisa. This constitutes a new multidisciplinary

development of the method called W.A.E.S. (wavelet analysis for electromyographic signals) which produces maps that distinguishes – with a high degree of reliability – healthy subjects from those affected by Parkinson's disease and also provides a quantitative assessment of how far the disease has advanced. As part of the research, a Parkinson's Disease Index was also created, which measures the patient's motor deficit.

### **E7 projects**

In cooperation with the other members of the E7, in 2003 Enel completed a rural electrification project in Indonesia with renewable-sources and hybrid systems and initiated the following projects:

- > wind generation for the electricity network of one of the Galapagos Islands, accompanied by initiatives regarding management of final demand;
- > improvement of the efficiency and environmental performance of a fuel-oil thermal power station in Lebanon.

Enel also participates in the climate-change work group, which is mainly concerned with developing – in cooperation with electricity companies in less developed countries – joint projects for reducing CO<sub>2</sub> emissions.

Among the most significant past projects to which Enel made an essential contribution:

- > reclamation of an oil power station in Jordan;
- > check of the performance of several thermal power stations in India.







## In greater detail

- > Who we are
- > Economic responsibility
- > Environmental responsibility
- > Social responsibility

## Who we are

### Corporate governance

#### sence of socially responsible investors (SRI) in Enel's share capital

Number, percent

	2003
SRI* funds with Enel shares	33
Enelshares held by SRI funds out of total institutional shareholders	16.2%

In barely 12 months the CSR strategy has increased interest in Enel on the part of the institutional investors called socially responsible

\* socially responsible investment.

#### Geographical distribution of socially responsible investors that hold Enel shares

Percent

	2003
USA	9.9
UK	30.4
Rest of Europe	21.4
Italy	20.3
Benelux	18.0

Enel's socially responsible investors are mainly European. The United Kingdom and Italy stand out with respect to the USA component.

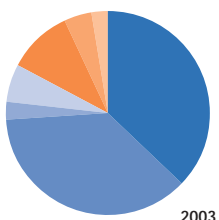
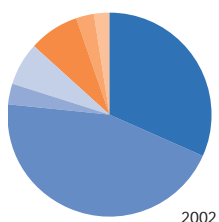
## Economic responsibility

### Gross operating margin

Percent

	2002	2003
■ Generation and Energy Management	31.63	37.11
■ Market, Infrastructure and Networks	44.98	36.85
■ International	3.29	2.81
■ Terna	6.82	6.00
■ Telecommunications	7.98	10.26
■ Business Services and Diversified Activities	2.83	4.37
■ Parent Company	2.47	2.60

The gross operating margin (the difference between the revenues and the operating costs of the Enel Group in 2003 shows an increase of about 28% with respect to 2002 (restated on a pro forma basis). The Generation and Energy Management Division made a decisive contribution to this increase thanks to a rise in production and the related revenues, achieved in the presence of a containment of operating costs. The Market, Infrastructure and Network Divisions record an overall increase of the gross operating margin deriving almost entirely from the business expansion of the Gas area, given the fall in the volume of electricity sold following the liberalization of the market initiated by the Bersani Decree in 2001. The Telecommunications Division shows a substantial increase in the gross operating margin with respect to the previous year due to the rise in revenue from mobile telephony in the presence of practically stable operating costs. Also significant is the contribution of the Business Services and Diversified Activities Division, deriving from the increase in margins achieved in the engineering and construction business.



### Shareholders

#### Weight of Enel shares in the main stock-market indices

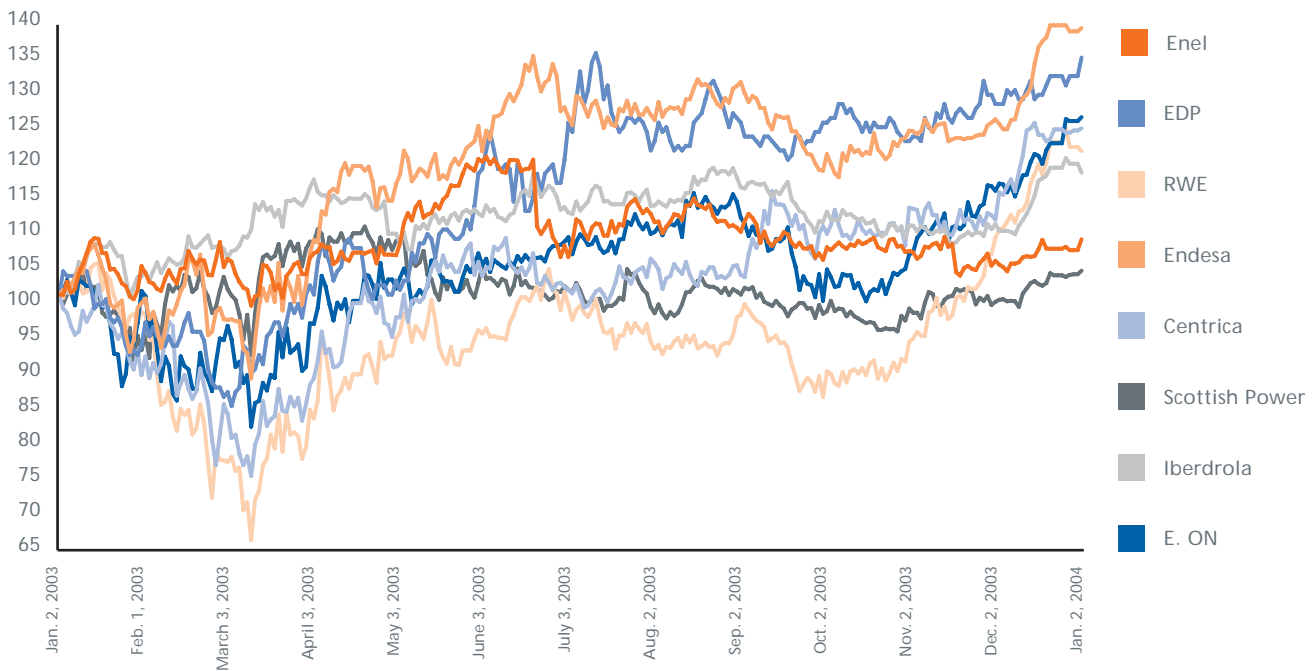
Number, Percent

	2001	2002	2003
FTSE Eurotop 100	0.373	0.434	0.411
MIBTEL	6.821	6.614	6.766
MIB 30	8.781	8.346	8.578
Milan Index His.	6.858	6.614	6.766
Milan Public Utilities	21.345	22.779	27.807
Bloomberg Europe	0.569	0.640	0.637
BE500 Electric	17.978	19.941	17.056
DJ Euro STOXX 50	0.679	0.849	0.928
DJ Euro STOXX	0.463	0.545	0.597
DJ Euro Utilities	7.838	8.817	9.209

Structural evolution of the respective baskets.

## Shareholders

Performance of Enel shares with respect to those of comparable European companies (Jan. 2, 2003 – Jan. 2, 2004)



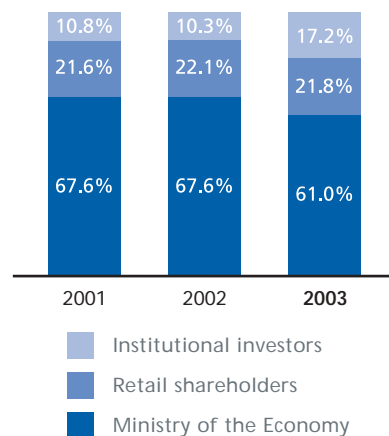
### Comparative analysis of dividends

Percent, Yield

	2002	2003
Enel	7.3%	6.7%
Acea	4.3%	no div
AEM MI	3.3%	2.8%
Eni	5.0%	5.0%
Endesa	6.1%	4.5%
Iberdrola	4.3%	3.9%
E.On	4.2%	3.4%
RWE	4.0%	3.5%
Scottish Power	5.8%	6.4%
Centrica	1.9%	2.0%
Electrabel	6.1%	5.8%

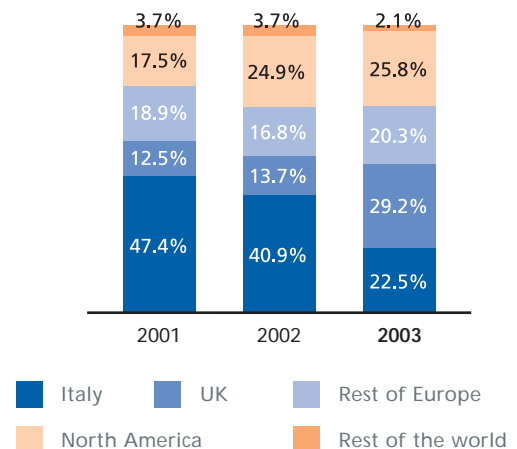
The decrease in Enel's yield is directly connected with the increasing price of its shares at an equal dividend per share. The yield was calculated comparing the dividend per share for year x (paid in year x + 1) with the price.

### Evolution of the shareholding base



The percentage owned by the Ministry of the Economy decreases with respect to 2002 following the placement of the second tranche, while the percentage owned by the institutional investors increases, thanks in part to the action of the Department of Investor Relations.

### Evolution of the geographical distribution of the institutional investors



In 2003 the percentage owned by the Italian institutional investors falls with respect to the other components. The UK and the rest of Europe increase in particular, in part thanks to the ad hoc initiatives carried out by the Department of Investor Relations.

## Shareholders

### Distribution of institutional investors by investment style

Percent	2003		
	2001	2002	2003
GARP	34.7%	37.4%	16.0%
Growth	7.6%	15.5%	25.6%
Index	38.4%	26.5%	16.6%
Value	18.2%	19.3%	20.8%
Hedge	n.a.	n.a.	19.1%
Other	1.1%	1.4%	1.9%

Ad hoc initiatives carried out by the Department of Investor Relations with regard to the most important institutional shareholders.

### Encounters of the top management /Department of Investor Relations with institutional investors

Number	2003	
	2002	2003
Encounters with investors	9	93
Number of which dedicated space to CSR issues	n.a.	n.a.

The encounters (conference calls, collective and individual encounters) in 2002 regard those that took place during the last quarter. In 2003 there were no encounters with investors in which CSR issues were discussed. The integration of CSR initiatives with the policies of the Department of Investor Relations took place in early 2004.

## Lenders

### Evolution of debt

Millions of euros	2003		
	2001	2002	2003
Net financial debt	21,930	24,467	24,174
Ratio net financial debt/ shareholders' equity	1.04	1.17	1.13

In 2003 net financial debt decreased by about 290 million euros because of the combined effect of an increase of about 2,200 million euros in net long-term financial debt and a reduction of about 2,490 million euros in net short-term financial debt. The debt/equity ratio consequently fell from 1.17 to 1.13. The main financial transactions carried out during 2003 were characterized by: bond issues, the establishment of revolving credit lines, loans granted by the EIB, and the refinancing of a loan granted in 2001.

## Customers - Electricity market

### Breakdown of customers in the electricity market

Thousands	2003	
	2002	2003
Customers regulated market		
> private	22,653.8	22,513.5
> other uses	6,475.5	6,400.9
<b>Total</b>	<b>29,129.3</b>	<b>28,914.4</b>
Customers free market	5.3	4.1

The downward trend in the number of customers is a consequence of the Bersani Decree on the liberalization of Italian electricity market. In 2003 the process of selling distribution networks to local public utilities interested in their acquisition continued. A distribution network serving 46 municipalities and about 96,200 customers was sold to Asm Brescia.

### Volumes sold on the electricity market

TWh	2003*	
	2002	2003*
Customers regulated market		
> private	51.3	51.7
> other uses	99.2	89.4
<b>Total</b>	<b>150.5</b>	<b>141.1</b>
Customers free market	30.4	10.7

Among the causes that determined the considerable reduction in the volumes of electricity sold on the free market mention should be made of the repositioning of Enel in this area through selective focusing on large and medium-sized eligible customers with the most value added.

\* Net of Deval.

### Total duration of interruptions per customer in the regulated market

Minutes	2003*			
	1996	2001	2002	2003*
	239	125	103	88

The substantial improvement in the technical quality of the service in the regulated market was achieved thanks to the investment made in the electricity distribution networks and to better management of the material used in plant construction.

\* Figure that must be validated by Electricity and Gas Authority.

## Customers - Gas market

### Breakdown of customers in the gas\* market

Thousands	2002	2003
Business customers	1.2	1.6
Household customers	1,720.3	1,794.0
<b>Total</b>	<b>1,721.4</b>	<b>1,795.7</b>
Transport	0.5	2.2

The expansion of both the business and household markets is the result of the acquisition of both single customers and groups of customers.

\* Data regarding Enel Gas.

### Volumes sold on the gas market

Millions of m<sup>3</sup>

	2002	2003
Business customers	1,501.9	1,780.5
Household customers	2,355.1	2,655.0
<b>Total</b>	<b>3,856.9</b>	<b>4,445.4</b>
Transport	49.0	88.9

Gas distribution and sales improve substantially in 2003. In order to reinforce its market position Enel signed an agreement with British Gas for a 50-50 joint venture regarding the construction and operation of a plant (with an annual capacity of 8 billion m<sup>3</sup> of gas) for the regasification of liquid natural gas located in Brindisi.

## Telecommunications

### Volume sold in the telephony market

Millions of minutes

	2002	2003
Mobile	7,771.8	9,492.5
Fixed-line	17,711.8	15,035.1
<b>Total</b>	<b>25,483.6</b>	<b>24,527.6</b>

The decrease in voice traffic in fixed-line telephony is connected mainly with the process of replacing fixed-line traffic with mobile and the consolidation of the leadership of the dominant company. Mobile telephony grew by 22%, with an increase of 36.5% in SMS volume with respect to 2002. Finally, profitability per customer also increased, with monthly ARPU (average revenue per user) amounting to 22.2 euros, against 19.6 euros the previous year.

## Suppliers

### Breakdown of the fuels purchased

Millions of euros

	2002	2003
Gas	754	1,183
Oil	1,475	1,014
Coal	488	412
Services	688	575
<b>Total</b>	<b>3,405</b>	<b>3,184</b>

There was a slight decrease (-6%) with respect to 2002, determined by a reduction of the consumption of oil, a large increase in gas due to the aggregation in the last quarter of 2003 of an annual supply contract, and the general effect of the euro/dollar exchange rate.

## Environmental responsibility

### Specific atmospheric emissions of SO<sub>2</sub> and NO<sub>x</sub> from thermal production

net g/kWh - plants in Italy

	1999	2000	2001	2002	2003
SO <sub>2</sub>	2.9	2.5	2.4	1.9	0.9
NO <sub>x</sub>	1.1	0.9	0.8	0.7	0.6

Sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) are created by combustion in thermal plants. The quantities indicated show a substantial reduction, thanks mainly to the use of advanced combustion systems, the improvement of abatement systems, and the use of superior fuels.

### Emissions of carbon dioxide from thermal production

Plants in Italy

	1999	2000	2001	2002	2003
CO <sub>2</sub>	696	692	707	720	670
specific emissions (net g/kWh)					
CO <sub>2</sub>	95	98	84	75	71.5
absolute emissions (millions of tons)					

The specific and absolute emissions of carbon dioxide (CO<sub>2</sub>), typical of combustion, show an appreciable reduction in 2003, thanks mainly to the sharp decrease in the use of fuel oil and the process of making production plants more efficient.

### Non-hazardous special waste

Percentage of the quantity produced by plants in Italy 2003

	1999	2000	2001	2002	2003
Coal ash		106	101	93	94
Gypsum from desulfuration		99	102	91	94
Other non-hazardous special waste		n.a.	n.a.	n.a.	55

### Specific atmospheric emissions of particulates from thermal production

net g/kWh - plants in Italy

	1999	2000	2001	2002	2003
Particulates	0.11	0.10	0.09	0.06	0.03

Particulates show an appreciable reduction thanks to the adoption of abatement systems.

### Waste produced

Thousands of tons - plants in Italy

	1999	2000	2001	2002	2003
	1,440	1,577	1,605	2,090	1,808

The residues of industrial activities show a reduction in 2003 due mainly to the use of superior fuels (less ash produced) and the generalized application of advanced technologies for abating particulates (more light ash trapped).

The share of waste reclaimed expresses the percentage of the quantity to be reclaimed (delivered to an authorized company) and the quantity produced.

### Waste produced

Tons - plants abroad 2003	Non-hazardous	Hazardous special
Enel North America	4,326	0
Maritza East III	1,261,820	0
Viesgo	845,163.5	406.1
<b>Total</b>	<b>2,111,309.5</b>	<b>406.1</b>

Data estimated on the basis of calculation made at the end of 2003.

## Fuel consumption

### Millions of toe - plants in Italy

	2002	2003
Natural gas	7.6	9.4
Fuel oil	8.1	6.4
Orimulsion	1.1	1.0
Coal	7.0	6.4
<b>Total</b>	<b>23.8</b>	<b>23.2</b>

The breakdown of fuel consumption in toe (tons of oil equivalent) shows the large use of natural gas and to a lesser extent of coal and fuel oil. Specifically, there is an appreciable reduction in the use of high- and medium-sulfur oil in favor of low-sulfur and sulfur-free oil, in accordance with EU directives regarding air quality and pollution produced by industrial plants.

### Millions of toe - plants abroad 2003

Natural gas	0.08
Fuel oil	0.07
Orimulsion	0
Coal	1.15
<b>Total</b>	<b>1.30</b>

In addition to the extensive use of coal for plants abroad, a significant amount of electricity is generated from renewable sources such as water, wind and biomass.

## Electricity production (net)

### Millions of kWh - plants in Italy

	2002*	2003
Thermal	104,735	106,670
Hydro (from natural flows)	27,942	26,012
Geothermal	4,382	5,036
Other sources	53	77
<b>Total</b>	<b>137,112</b>	<b>137,795</b>

Net production is up by 0.5% with respect to 2002, with the largest increase in the summer months. The significant increase in geothermal production is due to new plants. With respect to 2002, thermal production was characterized by a substantial reduction of the use of fuel oil and by considerable use of natural gas.

\* Production regarding Enel plant as of 12.31.2002.

### Millions of kWh - plants abroad and before EUFR

	2003
Thermal	7,427
Hydro (from natural flows)	2,881
Other sources	235
<b>Total</b>	<b>10,543</b>

The increase in the net production of electricity abroad stems from the increase recorded by the American companies (+25%) and the good performance of Maritza East III Power Company AD, the Bulgarian operating company acquired by Enel in March 2003.

## Percentage of production from renewable sources other than hydro

### Percentage of electricity produced in Italy

1999	2000	2001	2002	2003
2.3	2.4	2.7	3.2	3.8

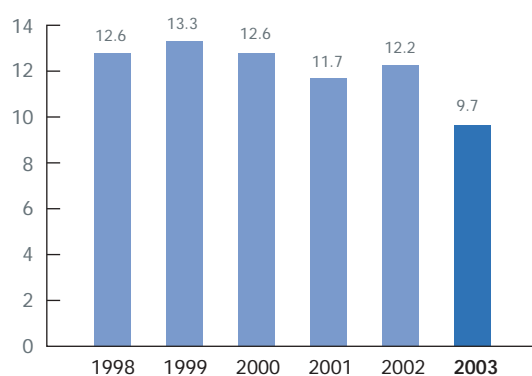
The increase over these years in production from renewable resources is due to the gradual growth of the geothermal (+15% with respect to 2002), wind (5 new plants in 2003) and solar contributions.

## Social responsibility

### People who work at Enel

	as of Dec. 31, 2003		as of Dec. 31, 2002		Change
Parent Company	522	0.8%	527	0.7%	-5
Generation and Energy Management – Italy	10,318	15.9%	12,077	17.0%	-1,759
Market, Infrastructure and Networks – Italy	36,424	56.2%	39,489	55.5%	-3,065
Terna	2,821	4.4%	3,106	4.4%	-285
Telecommunications	8,769	13.5%	8,602	12.1%	167
Business Services and Diversified Activities	4,206	6.5%	5,765	8.1%	-1,559
Abroad	1,710	2.6%	1,638	2.3%	72
<b>Total</b>	<b>64,770</b>	<b>100%</b>	<b>71,204</b>	<b>100%</b>	<b>-6,434</b>

### Number of injuries to Enel human resources per million hours worked from 1998 to 2003 (rate of frequency)



### Job status (as of Dec. 31)

	2002	2003
Executives	891	785
Supervisors	5,402	4,979
White-collar worker	42,380	39,409
Blue-collar worker	22,531	19,597
<b>Total</b>	<b>71,204</b>	<b>64,770</b>

All the projects developed in 2003 aimed at bringing out more and more of the potential of internal resources and consolidating professional and managerial capabilities. During the year the process of management review was initiated and the new system of capability assessment was designed and implemented.

### Education

	2002	2003
University degree	7,263	7,008
High school diploma	29,051	26,691
Other	34,890	31,071
<b>Total</b>	<b>71,204</b>	<b>64,770</b>

Considering that fewer people are now working at Enel, there is a slight increase in the percentage of university and high school graduates among Enel's human resources.



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## Hours of training per person

Number

	2002	2003
Generation and Energy Management	17	21
Market, Infrastructure and Networks	18.4	25
Terna	34.3	30.9
Business Services	19.1	24
Parent Company	14.7	22
Average*	19	25

The number of hours of training per person increased with respect to 2002, thanks to the 75% increase in distance training (+ 54,000 hours) and the 20% one in traditional training (+ 214,000 hours). Distance training provided courses to many people on the subjects of safety and sustainability, while traditionally provided courses in institutional training were perfected. As far as telecommunications are concerned, mention should be made of the substantial increase in the number of hours provided.

\* Weighted.

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## Share of distance training

Percent

	2002	2003
Generation and Energy Management	7	3
Market, Infrastructure and Networks	4.3	10.3
Terna	10.5	9.3
Business Services	14.9	8.7
Parent Company	8	6.6
Average*	6.2	8.9

2003 should be considered an exceptional year as far as the use of distance training is concerned. Important distance-training projects were initiated: for example, Ethical Code and Information Classification. Access from home to the corporate distance-training channel (EDSL, Enel Distance Learning System) is gradually increasing and can be improved thanks to the development of broadband. The areas of managerial, personal and professional development, as well as foreign languages and safety, were particularly emphasized.

\* Weighted.

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## Sustainability training

	2002	2003
Total cost of sustainability training (euros)	574,870	574,286
Cost per person of sustainability training (euros)	9.56	10.01

Expenditure on sustainability training was stable even though the average number of human resources fell by about 4.6%. This fact translates into an increase in expenditure per person, from 9.56 euros in 2002 to 10.01 euros in 2003.

(The data do not include Wind and foreign companies).



## Attachments

- > Study of stakeholders by Eurisko
- > KPMG certification
- > Glossary

ENEL S.p.A.  
Viale Regina Margherita 137  
00198 ROMA

Re: Executive summary of a survey on ENEL s Sustainability Report

Eurisko was asked to conduct a qualitative survey on a sample of stakeholders to determine their opinions on Enel s Sustainability Report 2003 .

The survey was conducted in Milan, Bologna, Rome and Bari from 20 April to 3 May 2004 using focus groups involving shareholders, employees, consumers and suppliers as well as individual interviews with energy managers, financial analysts, journalists and leading figures from environmental and consumer associations.

Respondents opinions were very positive, particularly those expressed by shareholders, consumers and energy managers.

Respondents particularly appreciated the document s :

- structure ( technical, professional)
- clarity and fluidity of language
- range of subjects discussed
- breadth and quality of information provided.

It was unanimously acknowledged that Enel s Sustainability Report is a document that:

- testifies to a genuine commitment to environmental and social responsibility
- expresses a modern and positive way of being a major company
- is a useful way of providing information and dialoguing with stakeholders.

Compared to last year all segments showed:

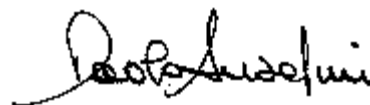
- greater familiarity with, interest in and awareness of the issue of corporate social responsibility
- a more demanding approach to social and environmental responsibility on the part of major companies, whose goal should not only be to promote their image
- on the whole, an attitude that is more sceptical and wary of what companies state in their annual reports ( Parmalat effect )
- a demand for impartial monitoring and certification of the information provided.

With regard specifically to the various stakeholders:

- o shareholders and financial analysts recognised that Enel's Sustainability Report can be a way of receiving important information and reassurance regarding their investment decisions.
- o consumers and energy managers appreciated the Report as proof of Enel's awareness and responsibility, but would like to have a more concise version that is not for experts .
- o suppliers and employees appreciated the document as a demonstration of its ethical awareness and social responsibility and wanted the sections that concern them most to be more complete .
- o journalists saw the Report as a marketing and communications tool that nevertheless requires the company to act in a more transparent or ethical manner.
- o consumer and environmental associations hoped that the presentation of the Report would be an opportunity to discuss with, and communicate to the media and the public at large.

It is hoped that in future Enel:

- will state more clearly its vision on social and environmental issues and its strategic priorities
- also acknowledge the more problematic aspects that need to be solved, and make firm commitments for the immediate future
- pay greater attention to the environment (alternative energy sources), commit itself more to educating consumers (energy saving) and pay greater attention to the weaker sections of society (fair bill).



Paolo Anselmi  
*Vice-president Eurisko*

Milan, 10 May 2004



Revisione e organizzazione contabile

KPMG S.p.A.  
Via Ettore Petrolini, 2  
00197 ROMA RM

Telefono (06) 809611  
Telefax (06) 8077475

**(Translation from the Italian original which remains the definitive version)**

## **Report of the auditors on the sustainability report Attestation**

To the board of directors of  
ENEL S.p.A.

- 1 We have carried out the compliance procedures and analyses on the sustainability report of the ENEL Group at 31 December 2003, described in paragraph 2 of this report.

The aim of the procedures was to evaluate the board of directors' statement, included in the sustainability report of the ENEL Group at 31 December 2003 in the paragraph entitled "Aim and structure of the Sustainability Report", that such report was prepared in compliance with the guidelines established by GRI – Global Reporting Initiative – and the principles promulgated by AA1000 – AccountAbility 1000. The preparation of the sustainability report in line with such principles is the responsibility of the parent company's management.

- 2 In order to evaluate the board of directors' statement mentioned in paragraph 1, we have performed the following procedures, in accordance with the International Auditing Standards issued by the International Federation of Accountants (IFAC) applicable to this engagement and the standards issued by AA 1000 Assurance Standard:
  - verifying that the financial figures and information are consistent with those included in the consolidated financial statements of the ENEL Group as at and for the year ended 31 December 2003, approved by the Board of Directors, with respect to which we issued our audit report dated 3 May 2004;
  - analysis of how the processes underlying the generation, recording and management of quantitative data operate. In particular, we have performed the following procedures:
    - interviews and discussions with management delegates and personnel of certain group companies, to obtain an overview of the activity of the Group Enel, to gather information on the IT, accounting and reporting systems used in preparing the sustainability report, and to chart the processes and procedures used to gather, combine, process and transmit data and information of the various group companies to the office that prepares the sustainability report;



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- sample-based analysis of supporting documentation used in preparing the sustainability report to confirm the reliability of the interview-derived information, as well as the effectiveness of processes and their adequacy in relation to business objectives, and that the internal control system correctly manages data and information;
- analysing the completeness of the qualitative information included in the sustainability report and its consistency throughout. This activity was carried out in line with the above-mentioned guidelines;
- verifying the stakeholders' involvement process, in terms of the methods used and analysis of the letter of "Qualitative study on "Enel's sustainability report" - summary of the main findings" with regards to salient features arising from meetings held with them and comparing them with the information disclosed in the sustainability report;
- obtaining the representation letter signed by the parent company's legal representative on the reliability and completeness of the sustainability report and on the information and data contained therein.

The sustainability report presents the prior year's figures and information for comparative purposes, in conformity with the guidelines and principles based on which the report has been prepared, with respect to which reference should be made to our attestation dated 13 May 2003.

- 3 Based on the procedures performed, we believe that the sustainability report of the ENEL Group at 31 December 2003 complies with the preparation guidelines and principles based on which it has been prepared and described in the paragraph entitled "Aim and structure of the Sustainability Report" of such report. Moreover, the financial figures and information included in the sustainability report are consistent with the figures and information included in the consolidated financial statements of the group and with the documentation we were provided with, and meet the content requirements established by the guidelines and principles governing sustainability report preparation.

Rome, 13 May 2004

KPMG S.p.A.

(Signed on the original)

Marco Maffei  
Director of Audit

## Glossary

<b>Backbone</b>	The backbone of a telecommunications network, characterized by a large traffic capacity. Its job is to connect other, smaller networks or the main exchanges with one another.
<b>Bay</b>	In transformer stations or primary substations, a section of electrical plant comprising the equipment securing the power lines, the dischargers and the isolating switches. One generally refers to line-arrival bays or transformer bays. Bays can be very- high-, high- or medium-voltage, according to the plant's operating voltage.
<b>Benchmark</b>	The real measurement of technical and/or economic data in a specified period of time used as a basis for the comparison of other, similar data.
<b>Bersani Decree</b>	Legislative Decree n. 79 of March 16, 1999.
<b>Biomass</b>	Non-fossil organic matter utilizable as a source of energy: agricultural and forest remains, food-industry waste, dung, organic parts of urban waste expressly grown plant species utilized to purify organic sewage.
<b>Co-generation</b>	The combined production of electricity and heat under the conditions established by the Electricity and Gas Authority.
<b>Coke-oven gas</b>	Gas produced during the transformation of coal into coke.
<b>Combined Cycle (CCGT)</b>	Technology used in electricity generating plants, comprising one or more sets of gas-turbine generators whose exhaust heats a boiler, which may also be fired by an additional fuel. The steam produced by the boiler is used to drive a steam turbine coupled with a generator.
<b>Commodity risk</b>	Risk regarding the businesses of electricity generation and the sale of electricity and gas connected with changes in oil prices and the euro-dollar exchange rate.
<b>Core business</b>	Main business of a firm.
<b>Corporate governance</b>	The set of rules by which a firm is managed and audited.
<b>CO<sub>2</sub> equivalent of average specific emission</b>	Emission of greenhouse gases expressed in terms of CO <sub>2</sub> (according to the total heating potential of the single gases) and with regard to the net total production of electricity.



<b>Customer</b>	<p>Business: for the telecommunications industry, a small, medium-sized and large business customer possessing a VAT registration number.</p> <p>Household: a regulated customer consuming low-voltage electricity supplied to a single delivery point per residence and adjacent premises.</p> <p>Final: a natural or legal person who buys electricity exclusively for his/her own use.</p> <p>Eligible: a natural or legal person who, pursuant to the Bersani Decree, is entitled to enter into contracts for the supply of electricity with any producer, distributor or wholesaler, both in Italy and abroad.</p> <p>Residential: in the telecommunications business, a customer who is a natural person.</p> <p>Regulated: a final customer who, pursuant to the Bersani Decree, does not come under the category of Eligible Customers and is entitled to enter into supply contracts exclusively with the distributor that provides the service in the area where the user is located.</p>
<b>Denitrification and desulfurization plants</b>	Plants that reduce the atmospheric emissions of nitrogen oxides and sulfur dioxide.
<b>Dispatching</b>	The activity that coordinates the use and operation of generating plants, the transmission network, and auxiliary services.
<b>Distribution</b>	The transportation and transformation of electricity on high-, medium- and low-voltage distribution networks for delivery to Final Customers.
<b>Electricity and Gas Authority</b>	The independent body, established by law n. 481 of November 14, 1995, that regulates and supervises the services of the electricity and gas industries.
<b>Electricity demand</b>	The quantity of electricity that must be made available on the network. It amounts to the sum of user consumption and network losses. It is also called electricity requirement.
<b>Electricity exchange</b>	The market, active as from January 1, 2004, to which all producers and Eligible Customers and the Single Buyer have access for buying and selling electricity.
<b>Electricity Industry Equalization Fund</b>	A body established in 1961 following the decision of the CIP (Interministerial Price Committee) to create an equalization mechanism when the single national tariff was introduced. It is entrusted with the management of the following funds: tariff supplementation account; energy cost (contributions for fuel costs and the purchase of electricity); financing for remaining nuclear activities; surcharge for new plants using renewable sources (CIP n. 6/1992); contributions replacing special tariff regimes; provisional contribution for the production of electricity for the regulated market; research funding.

<b>EMAS</b>	Environmental Management and Audit Scheme provided for by EU directive 761/2001.
<b>Ethical fund</b>	Financial investment product comprising companies selected according to requisites of economic, environmental and social responsibility.
<b>Ethical index</b>	Stock-market index based on the trading of shares of listed companies selected, among other things, according to negative criteria. The negative criteria (regarding markets such as those for pornography, tobacco, and weapons) entail the judgment that the company concerned is unethical.
<b>Financial advisor</b>	A consultant who assists companies in all its significant financial transactions: mergers, acquisitions, planning and drafting business plans.
<b>Focus group</b>	Discussion group led by a moderator specialized in techniques of psychoanalytical talk for the purpose of identifying the attitudes and behavior of people with respect to a given product or service.
<b>Gas turbine</b>	A machine that, through combustion, converts the energy of gas into the mechanical energy of a rotating shaft.
<b>Geothermal</b>	A plant that generates electricity utilizing heat from geothermal wells.
<b>Geothermy</b>	The natural phenomenon and its utilization for energy purposes of the heat (geothermal heat) that is present in large amounts in the layers of the earth's crust down to a depth of several thousand meters and made available through geothermal fluid (mostly water or steam) at a relatively high temperature and pressure.
<b>GPRS (General Packet Radio Service)</b>	A service that allows cell phones and portable computers to transmit data and to access and surf on Internet. GPRS is based on GSM (Global System for Mobile) technology.
<b>Green certificate</b>	A certificate regarding the production of electricity by plants that use renewable energy sources and entered service after August 1, 1999. Worth 100MWh or a multiple thereof, green certificates are issued by the Independent System Operator upon notification by the producer regarding the latter's production from renewable sources in the previous year. For the producers concerned, green certificates represent an alternative system for complying with the obligation imposed by the Bersani Decree to produce and/or import a quantity of electricity from renewable resources amounting to at least 2% of the quantity of electricity produced and/or imported from non-renewable resources in the previous year. Green certificates are freely traded by their holders and other electricity producers and importers subject to the aforesaid obligation.

<b>Green electricity</b>	A commonly used term indicating electricity produced from renewable energy sources: that is, ones that are able to continuously renew themselves, such as hydro, geothermal, solar, wind and biomass sources.
<b>Greenhouse gas</b>	A gas deriving from human activity and potentially capable of increasing the greenhouse effect. The Kyoto Protocol of 1997 identifies six gases with a greenhouse effect (carbon dioxide, sulfur hexafluoride, methane, nitrogen protoxide, hydrofluorocarbons, perfluorocarbons) and sets goals for their limitation.
<b>Gross efficient power (in MW)</b>	The maximum electric power that can be continuously produced during a sufficiently long given period of operation, assuming that all parts of the plant, from the terminals to the generators, are functioning.
<b>Gross production (in kWh)</b>	The total amount of electricity (including that generated by pumping) produced by all generating units concerned (thermal prime motor and one or more electricity generators coupled mechanically), as measured at the output terminals of the main generators.
<b>GSM</b>	European standard for radio mobile communication systems using digital technology in frequency bands from around 900 to 1,800 MHz.
<b>GW (Gigawatt)</b>	One billion watts (one million kilowatts).
<b>GWh (Gigawatt-hour)</b>	One million kilowatt-hours.
<b>HV</b>	High voltage
<b>Hydroelectric</b>	A hydroelectric plant is a plant in which the potential energy of water is transformed into electric energy. Hydroelectric plants can be run-of-river, storage and pumped-storage. The essentially consist of two parts: a powerhouse (turbine-generator units and connected works) and hydraulic works (dikes, reservoirs, intakes, conduits, etc.).
<b>Independent System Operator (ISO)</b>	The corporation entrusted with dispatching and transmitting electricity, including the unified operation of the National Transmission Network, regardless of who owns the network.
<b>Industrial producer</b>	A company that – subordinately to its main business activity – individually or jointly produces electricity of which not less than 70% is used to satisfy its own requirements.

<b>Internet</b>	The computer network system formed by the connection of many stations interconnected through the TCP/IP (Transmission Control Protocol/Internet Protocol) data-transmission protocol.
<b>ISO 14001</b>	International standard for the adoption of environmental management systems issued by the ISO (International Organization for Standardization)
<b>kcal (Kilocalorie)</b>	Unit of heat measurement (thermal energy). One kcal is the quantity of heat necessary to raise the temperature of 1 kg of water by 1°C.
<b>kV (Kilovolt)</b>	1,000 volts.
<b>kW (Kilowatt)</b>	1,000 watts.
<b>kWh (Kilowatt-hour)</b>	One kilowatt of power supplied or demanded for one hour.
<b>LV</b>	Low voltage.
<b>MAN (Metropolitan Area Network)</b>	A communication network based mainly on optic fibers that covers the perimeter of a city.
<b>Market Manager</b>	The corporation formed by the Independent System Operator, which is entrusted with the economic management of the Electricity Exchange.
<b>Micro-generation</b>	Electricity generation with small plants which, because of their flexibility, can be widely used at the local level.
<b>Mid-Merit</b>	A category of generating plants that are used to adjust network load and thus are in operation for a limited number of hours a year.
<b>MV</b>	Medium voltage
<b>MVA (Megavolt ampere)</b>	The measure of total (active and reactive) electric power.
<b>MW (Megawatt)</b>	1,000,000 watts.

<b>MWh</b> (Megawatt-hour)	1,000 kilowatt-hours.
<b>National Transmission Network</b>	The complex of transformer stations and high-voltage power-transmission lines covering Italy.
<b>Net efficient power</b> (in MW)	The maximum amount of electric power that can be continuously produced during a sufficiently long period of operation, assuming that the parts of the plant are functioning, as measured at the point of entry into the network; that is, net of the power absorbed by the plant itself and the power lost in the transformers required to raise the voltage to the network value.
<b>Net production</b> (in kWh)	Gross electricity production net of the electricity absorbed by auxiliary generation services and losses in the main transformers.
<b>Network availability</b>	The state in which the National Transmission Network is utilizable by the Independent System Operator for the activities entrusted to it.
<b>OHSAS</b>	Occupational Health and Safety Assessment Series: a certification that helps firms to establish objectives and policies regarding the health and safety of their human resources.
<b>Onlus</b>	A socially useful not-for-profit organization.
<b>Orimulsion</b>	A fossil fuel from the basin of the Orinoco River in Venezuela, consisting of very fine bitumen dispersed in water.
<b>Peak power</b>	The electric power demanded on the network at the time of maximum load.
<b>Photovoltaic</b>	Direct transformation of the energy of light into electric energy.
<b>Power transformer</b>	A static machine that transforms a system of alternating current into another system, generally with different voltage and current at the same frequency, in order to transmit electric power.
<b>Price cap</b>	A limit imposed by a regulatory body on the revenues of a determined industry, which takes into account changes in the consumer price index and the efficiency gains expected of companies in the industry.

<b>Rating agency</b>	A firm specialized in the analysis and evaluation of companies for the purpose of establishing a rating, expressed as a letter or number, that represents a company's financial situation.
<b>Reburning</b>	Combustion treatment of unburned carbonium present in ash, which can take place both in the same boiler where the ash was produced and in dedicated plants.
<b>Reforming</b>	A chemical process consisting in the improvement of mixes of heavy hydrocarbons by transforming them into compounds with a lower molecular weight and a higher degree of saturation.
<b>Renewable resources</b>	Sun, wind, water resources, geothermal resources, tides, waves, organic and inorganic waste.
<b>Risk and crisis management</b>	Processes and instruments aimed at preventing and managing exceptional and unforeseen events that can affect a company in different ways and at different degrees of intensity.
<b>Shareholder</b>	An owner of part of a company's share capital.
<b>Single buyer</b>	A corporation formed by the Independent System Operator to ensure the continuous, safe and efficient supply of electricity to Regulated Customers. It has been operative since January 1, 2004, when the Electricity Exchange became active.
<b>Solar</b>	Energy transmitted by the sun through electromagnetic radiation.
<b>Specific emission</b>	Ratio between the total amount of polluting emissions and the net thermoelectric production concerned.
<b>Steam turbine</b>	A machine that converts the energy of steam generated in a boiler or of geothermal steam into the mechanical energy of a rotating shaft.
<b>Stakeholder</b>	An individual, community or organization that influences the operations of a firm or is subjected – directly or indirectly – to the repercussions of them and whose interests and rights are at stake in them. In the broadest meaning of the term, stakeholders can be internal (management and the other people who work in the firm) or external (suppliers, customers, investors, business partners, local communities, the civil service, future generations, environmental interests, etc.).
<b>Stranded costs</b>	Costs deriving from investment and contractual obligations assumed and performed prior to February 19, 1997 (the year in which EU directive 96/92 went into effect) by companies operating in a monopolistic market and carrying out business policies that penalized them when the market became competitive. Stranded costs are defined by the Industry Ministry's decree of January 26, 2000.

<b>Sustainability index</b>	Stock-market index based on the trading of shares of listed companies selected according to requisites of economic, environmental and social responsibility.
<b>Sustainable development</b>	The long-term economic growth of a company through low environmental impact and good relations with the social community.
<b>Thermal</b>	A plant for generating electricity that uses fossil fuels (coal, natural gas, fuel oil, orimulsion).
<b>Thermal efficiency</b>	The ratio between the quantity of electricity produced and the quantity of energy from primary sources used to produce it.
<b>Three-phase line</b>	The set of three conductors that constitute the three phases of an electric power line.
<b>TOE</b>	Ton of oil equivalent. A conventional unit, equivalent to 10 million kcal, which enables the quantity of any energy source to be expressed by comparing its energy potential with that of crude oil.
<b>Transport</b>	Use of the National Transmission Network and distribution networks for the transportation of electricity from a point of entry to a point of withdrawal.
<b>Transmission</b>	The transportation of electric power along interconnected high- and very-high-voltage networks from generating plants or, in the case of imported electricity, from the delivery point of the latter to the distribution system.
<b>Triboelectrostatics</b>	The technique of electrostatic loading of solid particles through friction both among the particles themselves and between the particles and special metal or plastic surfaces.
<b>TWh (Terawatt-hour)</b>	One billion kilowatt-hours.
<b>ULL</b>	Unbundling the Local Loop: access by other companies to the local network of a former monopolist of fixed-line telecommunication.
<b>Unavailability for call into service</b>	The fraction of unavailable (with respect to nominal) power due to unscheduled and/or unplanned causes during the periods in which the plant is called to produce.
<b>Volt</b>	The basic unit of electric force.
<b>Watt</b>	The basic unit of electric power.

- White certificate** Title of Energy Efficiency (TEE) issued to distributors of electricity and gas with more than 100,000 final customers. The title is issued by the Market Manager against a saving of primary energy certified and achieved through initiatives for the rational use of energy.
- Wind** Electricity produced by exploiting wind.
- Wind generator** A system consisting of the coupling of a wind motor with an electricity generator. The former converts the energy of the wind into the mechanical energy of a rotating shaft, while the latter converts the mechanical energy into electricity.





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