# 2006 Annual Report and Accounts Sustainability Report



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# 2006 Annual Report and Accounts Sustainability Report Index

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# 2006 Annual Report and Accounts Sustainability Report Message from the Chairman of the General and Supervisory Board



After decades of economic growth at any cost, the world is fast waking up to sustainability issues, in the awareness that economic sustainability is and will be for a long time the cornerstone of social, ethical and environmental sustainability.

When I refer to the world's concerns I am naturally thinking of more developed societies, which have already achieved high levels of development and quality of life. But there is a substantial part of the world that has fallen behind, where its people have legitimate aspirations to higher standards of living and human dignity, but are now faced with the added pressure and costs of sustainability.

Green attitudes to the environment, social exclusion or living conditions in suburbs and rural areas must take this conflict into account and focus on balance. And, even more difficult, they have to take on most of the expense, with the inevitable political costs in relation to their electorate.

Climate issues have come into the spotlight as a result of the catastrophes that have stricken some regions in recent years, taking a high toll on human life and destroying public and private property. Constant, effective publicity given to the deterioration occurring and the general realization of the increasingly serious consequences, appearing sooner than some pessimists predicted, have helped cement this perception.

In spite of our awareness of the urgent need to implement measures to reduce greenhouse gas emissions, we must recognise that other effects arising from investors' expectations and market pressures on performances that have little to do with the environment may be maintaining antibodies that are holding back a real global policy in this vein.

Years ago, EDP voluntarily adopted a culture favouring the environment and the communities that it serves in the different parts of the world in which it operates. EDP therefore fully accepts its responsibility in the different sustainability fields and is proud of the work that it has done and the campaigns in which it has been involved. Large investments in renewable energies, particularly wind and hydroelectric power, and in new, experimental forms of clean energy are just some examples of EDP's philosophy and practices in this field.

We have not confined ourselves to aspects most directly linked to our industrial activity. The arts, sports, community support, science, youth training and the preservation of national heritage are also areas of concern and action for EDP.

EDP's shareholders are aware of the importance of sustainability issues and have taken on the obligation of allocating a percentage of the profits every year for this purpose, notwithstanding any other funds that the Executive Board of Directors includes in the annual budget.

I had the privilege of growing up in Africa in an unspoilt environment just as nature had created it. A city redolent with jacarandas and red acacias and Polana Beach where the monkeys shared our picnics. The River Incomáti full of hippopotamuses and crocodiles and the Mungari Valley brimming with buffalo. Mornings enchanted by a chorus of thousands of exotic birds. Dinner in silence on the shores of Lake Niassa. After graduating from university and completing three years of military service, I returned to Africa and witnessed the rapid changes that nature had suffered as a result not only of peaceful economic development but also of armed conflict.

When I am writing about the environment and sustainability, I don't think of nice words or international indices. I think about my personal experience. I think about humanity and nature realistically rather than about the many businesses that have been born and are prospering at the expense of sustainability. This is why the Chairman of EDP's General and Supervisory Board will always be the most impartial and relentless defender of sustainability.

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António de Almeida Chairman of the General and Supervisory Board



# 2006 Annual Report and Accounts Sustainability Report Interview with the Chairman of the Executive Board of Directors



# How important is sustainability?

**António Mexia:** Sustainability in all its environmental, social and economic facets is a priority for EDP. We want to be a benchmark in the energy sector and fully incorporate this commitment in our decisions and management principles, internal organisation and culture.

# How is sustainability addressed at EDP?

**AM**: Our commitment to sustainability is reflected (i) in our business strategy of committing to renewable energies, including hydroelectric power, and the generation of electricity with cleaner technologies in terms of CO<sub>2</sub> emissions, (ii) in our people, training them and developing an in-house culture accepting responsibility toward the community and respecting the environment, (iii) in our suppliers, through their alignment with our code of ethics and principles of sustainable development, (iv) in our customers, in campaigns promoting energy efficiency and the need to adopt behaviours in harmony with sustainability, (v) in our community, with the reorientation in 2006 of our sponsorship and patronage policy towards areas valued most by society and public opinion and (vi) in our investors, with their recognition of our strategy in a year in which EDP's share price appreciated to record levels, making it the largest company listed on the Portuguese stock exchange.

# What is your assessment of EDP's sustainability performance in 2006 and what aspects leave room for improvement?

AM: Sustainability featured in all our strategic decisions, and our performance in this field was reinforced as a result.

Investment in renewable energies was a priority. We conducted intensive energy efficiency campaigns, launched a green tariff for edp5D customers and were pioneers in opening a space completely devoted to sustainability. These are unequivocal signs of our endeavour in the field.

Where the environment is concerned, given the importance of the fight against climate change, we developed projects to generate C0<sub>2</sub> emission credits and fostered national forestry management projects with great potential for the national emissions balance and the combat against soil desertification.

In social terms, I attribute particular importance to the realignment of EDP's sponsorship and patronage policy, focusing more on issues such as education, health, the environment and innovation.

As for the promotion of energy efficiency, the recent allocation to EDP of 81% of the funds put out for tender by ERSE for electricity consumption efficiency projects in Portugal is a clear demonstration of our commitment and ability to offer products and services that meet the needs of our customers and our community, in a context of completely open market in terms of competitiveness.

Nevertheless, the final assessment of our performance lies with our stakeholders. We are therefore proud of the distinctions we have received, such as the AESE and Price Waterhouse Coopers Civic Award for Companies and Organisations and the classification as Best in Class of the energy sector, by Store Brand SRI, a Scandinavian financial company.

# 2006 Annual Report and Accounts Sustainability Report Interview with the Chairman of the Executive Board of Directors

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Sustainability is a permanent path to be followed, a concern for continuous development. In 2007 we are going to continue to make decisions and implement measures that will keep us amongst the leading group of European energy companies with the best sustainability performance.

# How can EDP's goals of growth and creation of value for shareholders be reconciled with its commitment to sustainability?

**AM:** Today, sustainability and creating value for shareholders are indissociable. We are sure that, in the long run, we will not be able to grow or create value for our shareholders unless our everyday policies and strategic decisions include society's environmental concerns.

We are aware of this reality, especially in an area like the energy sector. Our business plan for the next four years shows that sustainable growth is synonymous with the creation of value, in our view.

Renewable energies are a fundamental part of our growth strategy and we will be channelling around half our investment into them up to 2010 (including major hydroelectric plants). In 2006, we increased our gross installed wind power capacity by 60%. Today we are one of the five largest companies in the world, operating not only in the Iberian Peninsula but also in France and Belgium. We aim to almost treble our size, thereby helping Portugal and the EU to achieve ambitious green energy development goals.

There are plans to invest over EUR 1 billion in hydroelectric power station projects and increase installed capacity by more than 1,000 MW.

We are also developing biomass projects and plan to build several power stations by 2010, in addition to using biomass in co-combustion at coal-fired plants. Solar and wave energy are two other areas in which we are investing. We shall monitor developments in these latter two areas very closely in the future.

# The industrial activity of companies in the energy sector is essential to social development and well-being. However, it involves environmental impacts that must be taken into account. What is EDP's strategy in this area?

**AM:** As I explained before, our strategic backing of renewable energies is a clear sign of our commitment to the environment. It was also this commitment that encouraged us to bring back the issue of hydroelectric generation, which we hope to promote. We are seeking solutions that will minimise the impact on local biodiversity by conducting studies and forming partnerships to enable us to go ahead with sustainable projects in this area.

The company is also backing thermoelectric generation at natural gas combined cycle power stations in the Iberian Peninsula.

Where our thermoelectric power stations are concerned, we have been investing large sums in recent years and we will continue to invest in solutions that can substantially reduce gas and particle emissions. For example, in 2006, we began building desulphurisation units to reduce sulphur dioxide emissions at our plants in Sines in Portugal and Aboño and Soto de Ribera in Spain, involving an investment of around EUR 325 million. We are also planning to invest around EUR 100 million to reduce nitrogen oxides and particle emissions.

Among other benefits, these initiatives will make a considerable contribution to achieving the goal that we announced to the market - reducing our CO2 / MWh emission factor by 20% by 2010 (based on 2006 values).



# What are the challenges and opportunities for sustainability in the future?

**AM:** Sustainability is not a fad; it's not a trend. It's an unavoidable reality. The European Commission recently announced the so-called European Energy Package proposing a series of ambitious measures aimed at reducing emissions, using renewable sources to generate energy and encouraging energy efficiency.

The Portuguese government has also established a series of measures and goals that have put Portugal in Europe's front line. At this time, Portugal has the most ambitious target in Europe for the reduction of per capita CO<sub>2</sub> emissions, one of the most ambitious interconnection goals and the third highest renewables target of 45% of electricity produced from renewable sources by 2010. The fact that Portugal showed the highest growth rate in wind power in the EU in 2005 and the second highest in 2006 shows the country's' clear determination to reach its targets.

EDP considers sustainability to be a commitment. It is a commitment to our community, partners, customers, investors and employees. It is our obligation to lead the way. The challenge is making this perfectly clear in our decisions, business, internal policies and corporate culture. The recognition that we have achieved from our community and the market shows that we are on the right track. 2006 Annual Report and Accounts Sustainability Report Scope of the Sustainability Report



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# 2006 Annual Report and Accounts Sustainability Report Scope of the Sustainability Report



# 1. Scope of the Sustainability Report

# 1.1. Framework

This Sustainability Report describes EDP's sustainability performance in the 2006 financial year. It was approved by the Executive Board of Directors (EBD) on 1 March 2007 and received a favourable opinion from the General and Supervisory Board on 8 March 2007. The last sustainability report was published in 2005. As in previous years, EDP's Annual Report and Accounts for 2006 consists of the Sustainability Report and two other sections, the Institutional and Corporate Governance Report and the Financial Report, which contain more detailed economic and financial information.

# 1.2. Information for stakeholders

The Sustainability Report is available at www.edp.pt-sustentabilidade. EDP's 2006 Annual Report and Accounts can be viewed at www.edp.pt-investidores. For any further information places contact the following email

at www.edp.pt-investidores. For any further information, please contact the following email address: gabinete.ambiente@edp.pt

### 1.3. Consolidation criteria

The companies covered by this report are shown on page 27. In addition to the companies reported on in 2005 under the electricity business, this report also contains information on the gas business - Portgás in Portugal and Naturgás in Spain. This year, the report does not include the telecommunications business, following the sale of ONI SGPS, SA (ONI), the holding company owning ONITELECOM, given the company's strategy of focusing on the energy business.

Where the consolidation perimeter is concerned, we have continued to use the full consolidation method to report on the performance of companies owned 100%; in those companies in which EDP has shared control the proportional method is used to consolidate only the percentage held. This universe represented around 98% of EDP's turnover in 2006. This report has been prepared using the Global Reporting Initiative Guidelines (GRI3) and the sustainability report is at level "B+". It also describes the company's alignment in fulfilling the 10 Principles of the Global Compact, an international initiative promoted by the former Secretary-General of the United Nations, which EDP joined in 2004. The degree of compliance with the GRI report structure and Global Compact principles are shown in the table on page 120.

In mid-2006, EDP sought out the opinion of a nonrandom sample of 433 stakeholders on the 2005 Sustainability Report, through a poll. The sample consisted of 225 employees who had received sustainability training at INSEAD meetings, 32 large customers with electricity contracts for different voltages, 68 major suppliers, 31 media entities, 17 scientific institutions, 15 professional associations, 13 consultants, 11 government institutions, 9 NGOs, 8 energy companies and 4 rating companies. The 176 replies, representing 40.7% of the sample, and their suggestions for improvement made it possible to organise this Sustainability Report differently.

In order to continue to improve the way in which sustainability information is reported in 2007, there is a short questionnaire on the Sustainability Report at www.edp.pt-sustentabilidade.

Your participation will serve as encouragement for EDP to constantly improve as well as good practice in open, transparent dialogue with all stakeholders.

The 2006 Sustainability Report abides by the eight Principles of Sustainable Development approved by EDP's Board of Directors in March 2004. These principles are detailed at www.edp.pt-sustentabilidade.



### **Creation of**

- Create value shareholders
- Increase productivity and efficiency and reduce exposure to risks related to the economic, environmental and social impact of its activities
- Commit to customer orientation, high levels of quality service
- Intregate environmental and social aspects in planning and decision-making processes



• Promote the development of cleaner, more efficient energy

2

- technologies
- Develop means of generation based on renewable energiesPromote the rational use of energy
- 5,





### **Environmental protection**

- Minimise the environmental impact of all its activities
- Participate in initiatives that contribute to the preservation
   of the environment
- Extend the use of environmental criteria to the entire value chain

### Integrity

- Ensure the observance of ethical standards in the conduction
   of business
- Respect human rights in its sphere of influence
- Elaborate specific codes of conduct

### Dialogue with stakeholders

- Ensure an open, transparent and trustful relationship with the different stakeholders
- Establish stakeholder communication channels and integrate their concerns
- Report performance in a credible, objective way in its
   economical, environmental and social dimensione

### Human capital management

- Reinforce management systems to ensure health, safety
   and well-being of workers
- Promote the development of individual skills and reward merit and excellence
- Reject abusive and discriminatory practices

# Support to social development

- Support social and cultural promotion initiatives based on transparent assessment of importance to the community
- Promote technology transfer to developing countries

### Promotion of access to electric energy

- Promote generalised and reliable access to electric energy
- Adopted a transparent and socially fair price policy
- Develop means of electricity generation of appropriate quality
   at a minimum cost

# 2006 Annual Report and Accounts Sustainability Report Scope of the Sustainability Report

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# 1.4 Guidelines

# Reader's guide

The Sustainability Report describes sustainability performance in 2006 and a new strategy aimed at:

- Long-term creation of sustainable value;
- The development of EDP's businesses through greater efficiency;
- Oriented growth and controlled risk.

This EDP Group strategy will enable us to face and meet several challenges.

To meet the challenge of generating electricity in a sustainable manner, EDP's new strategy is based on:

- Generating electricity with cleaner technologies to reduce greenhouse gas emissions;
- Taking the leadership of the renewable energy sector;
- Developing new business opportunities in highquality wind farms on the Iberian Peninsula and other countries.

Our strategy includes the following to meet the challenge of being recognised as the supplier of reference in Portugal and abroad:

- Managing the regulatory risk;
- Improving product quality to strengthen customer retention and loyalty.

As an essential factor in meeting these challenges, EDP will:

- Increase employees' involvement, by developing a culture of improved performance;
- Redefine its talent management policies;
- Develop and retain human resources.

The path we have mapped out, like the one we have followed in the past, is based on the EDP Group's commitment to abide by principles of transparency, respect for the environment and compliance with the highest standards of ethics and honesty.



### Chairman of the General and Supervisory Board

In 2005, EDP approved its Code of Ethics and distributed it to all its employees. (For more detailed information please see page 40 of this report or go to **www.edp.pt**.)





**2006 Annual Report and Accounts** Sustainability Report Sustainability trends in the EDP Group



 Sustainability frends in the EDP Group
 Challenges and opportunities

2.2. Key sustainability indicators



2006 Annual Report and Accounts Sustainability Report Sustainability trends in the EDP Group







# "Making our energy felt in the market".

António Mexia (Chairman of the Executive Board of Directors)

# 2. Sustainability trends in the EDP Group

# 2.1. Challenges and opportunities

EDP recognises that its activities have an impact on the environment. We are focused on combating climate change, reducing dependence on energy from fossil fuels and the need to protect biodiversity.

EDP wishes to continue to be a role model and must therefore efficiently manage goals that are sometimes hard to reconcile:

- Supplying energy at the lowest possible cost;
- # Ensuring a secure supply of electricity;
- Reducing the dependence on fossil fuels;
- Fostering the use of renewable energies.

EDP's vision is to be a leader in the creation of value supported by an effective organisation with a strong corporate culture and by the growth in markets in which the group's assets resulting from its acquired knowledge will ensure that it is in a league apart.

In order to meet this challenge, we have built a strategy on three main pillars:

- Controlled risk to manage business risks;
- Greater efficiency to be regarded as a role model in the market;
- Oriented growth to make a difference.

Where controlled risk is concerned, EDP, as part of the Eólicas de Portugal consortium, in which it has a 40% stake, won the invitation to tender for licences to build 1,200 MW of wind farms. The company also obtained licences to build one combined-cycle power station in Portugal and two in Spain, totalling 1,200 MW.

A "clean" coal-fired power station with around 800 MW is scheduled to become operational in 2015. This energy mix of natural gas, coal and renewable energies will help reduce specific emissions and minimise the risk of dependence on a single type of fuel.

As for greater efficiency, the company has already begun disinvestment in assets that do not belong to the energy business, selling Telecable and ONI.

As far as oriented growth is concerned, NEO Energía, the EDP Group company that manages the renewable energy business in the Iberian Peninsula, has been growing considerably. Its installed wind power capacity has almost trebled and it has begun to expand into other markets (France and Belgium).

In terms of hydroelectric generation, in Brazil the third and last generating group at the Peixe Angical power station and the fourth group at Mascarenhas went into operation, which was an important milestone for EDP, as this fact trebled its installed capacity from 267 MW in 2005 to 769 MW in 2006.

This strategy can only be pursued because of the support provided through the commitments made to stakeholders.

# 2006 Annual Report and Accounts Sustainability Report Sustainability trends in the EDP Group



1) To customers – whenever EDP makes a decision, it puts its customers first. In this area, EDP hopes to achieve the following by 2010:

- An additional 900,000 customers electricity;
- An additional 200,000 gas customers;

Better quality of service, with an equivalent interruption time of 140 minutes and 72 minutes in Portugal and Spain, respectively.

**2)** To the community – EDP's operations respect the conservation of nature. In this regard, EDP wishes to achieve the following by 2010:

- Reducing specific CO<sub>2</sub> emissions by 20%, compared to 2006;
- Investing EUR 3.45 billion in renewable energies;
- Investing EUR 150 million in environmental improvements;
- Investing EUR 10 million a year in research and development and technological innovation.

**3)** To shareholders – we at EDP are pleased with the confidence they have placed in us and are committed to an 11% annual increase in dividend per share up to 2010.

**4)** To employees – the company wants to have a simple, effective organisation in order to do more and be better than its counterparts. In this area, EDP wants:

#1,250 new employees;

- Another 290,000 hours of training in 2007;
- #A strong corporate culture.

In 2006, EDP made changes in the structure of its holding company and its relations with the different business units and the shared service unit, in order to achieve its goals of:

- **"Top-Down"** corporate centre and shared service unit;
- **"Bottom-Up"** business units and shared service unit -> corporate centre.

In order to foster a strong Group corporate culture, we have developed a new strategy for our brand called "EDP WAY". This initiative will show that EDP, through this strategy, wants to be:

Efficient in costs and investment;

Natural and sustainable in the performance of its business activities;

Excellent in the service it provides;

Responsible and trustworthy in its relations with others;

Global and fair;

Innovative and enterprising;

Ambitious and open and through simple, effective communication.



# **2006 Annual Report and Accounts** Sustainability Report **Sustainability trends in the EDP Group**

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# 2.2. Key Sustainability Indicators

Consolidated EDP Group						
Economic and financial indicators (Euro thousand)	2006	2005	Var.(%)			
Turnover			7.3			
Gross operating results	10,349,826	9,648,167 2,050,167	12.5			
	2,305,450		9.7			
Operating results	1,253,036	1,141,880				
Net profit	940,823	1,071,102	-12.2			
Net operating investment	1,456,537	1,427,154	2.1			
Net assets	25,468,911	24,035,570	6.0			
Return on assets	3.8%	4.7%		p.p.		
Equity	5,589,235	4,823,400	15.9			
Return on equity	18.5%	25.2%		p.p.		
Financial liabilities	10,153,050	10,584,300	-4.1			
Market appreciation	14,041,105	9,506,998	47.7			
Profit per share (EUR)	0.26	0.29	-11.9			
Dividend Yield	2.86%	3.85%		p.p.		
Environmental investment	150,444	66,388	126.6			
Environmental fines	366	4	9,906.6			
		Destaural		a		- ++ /2)
Operating Indicators	2006	Portugal 2005	2006	Spain <sup>(1)</sup> 2005	2006	Brazil <sup>(2)</sup> 2005
a har ann a maranana	2000	2003	2000	2003	2000	2003
Net generation of electricity				15 510 005	0 700 33-	
Total electricity generation (MWh)	28,572,528	25,237,362	14,496,233	15,519,931	2,728,117	1,541,07
Conventional thermal generation (MWh)	11,314,311	14,545,058	9,853,889	11,164,277	n.a.	n.a
Combined-cycle generation (MWh)	5,728,223	5,088,061	1,692,185	2,108,491	n.a.	n.a
Cogeneration (MWh)	727,246	670,894	137,614	502,401	n.a.	n.a
Hydroelectric generation (MWh)	10,263,248	4,533,804	847,583	847,177	2,728,117	1,541,07
Wind generation (MWh)	482,030	348,155	1,644,481	528,696	n.a.	n.a
Waste generation (MWh) <sup>(3)</sup>	n.a.	n.a.	314,530	349,305	n.a.	n.a
Biomass generation (MWh)	57,471	51,389	5,951	19,634	n.a.	n.a
Steam generation (TJ)	5,682	5,540	498	n.a.	n.a.	n.a
Primary energy consumption (TJ)	0,002	0,010				
Total primary energy consumption	159,121	197,234	112,431	113,239	n.a.	n.a
Coal consumption	93,611	92,119	90,188	99,104	n.a.	n.a
Fuel oil consumption	17,641	50,132	216	277	n.a.	n.a
Natural gas consumption	46,251	53,290	11,364	13,814	n.a.	n.a
Blast furnace gas consumption			8388	n.d.	n.a.	n.a
	n.a.	n.a.	2207	n.d.		
Coke gas consumption	n.a.	n.a.			n.a.	n.a
Diesel consumption	17	242	67	45	n.a.	n.a
Propane gas consumption	3	2	n.a.	n.a.	n.a.	n.a
Forest waste consumption	1,411	1,273	n.a.	n.a.	n.a.	n.a
Fuel consumption by vehicle fleet	187	177	n.d.	n.d.	n.d.	n.d
Electricity consumption						
Consumption by generation (MWh)	1,687,714	1,777,479	n.d.	n.d.	n.d.	n.d
At administrative services (MWh)	24,597	28,297	n.d.	n.d.	n.d.	n.d
Outgoing electricity from distribution grid (MWh)	45,414,010	43,784,469	9,551,000	9,247,000	23,948,179	23,061,000
Electricity sales - Regulated market (MWh)	38,252,954	34,163,925	8,184,000	7,739,000	15,618,000	16,576,000
Electricity sales - Supply (MWh)	4,037,280	6,314,000	8,313,000	5,926,300	6,702,000	6,379,000
Environmental indicators						
ISO 14001 environmental certification						
Certified maximum net installed capacity (%)	91	33	12	12	0	0
	91		12	12	0	
Atmospheric emissions					1	
Total emissions (kt)	10 701	14.001	11 775	10 010		
CO <sub>2</sub>	12,701	14,881	11,775	12,918	n.a.	n.a
SO <sub>2</sub>	60.72	78.86	46.07	45.74	n.a.	n.a
NO <sub>X</sub>	35.18	39.54	24.80	32.90	n.a.	n.a
Particles	2.09	2.09	1.94	2.79	n.a.	n.a
Total specific emissions (g/kWh) <sup>(4)</sup>	407	550	784	818	n.a.	n.a
Specific emissions - thermal plants (g/kWh)						
CO <sub>2</sub>	626	731	943	973	n.a.	n.a
SO <sub>2</sub>	2.99	3.67	3.59	3.28	n.a.	n.a
	1.73	1.84	1.94	2.84	n.a.	n.c
NO <sub>X</sub>	1.75	1.04	1.7.1	2.01		



				(1)		
		Portugal		Spain <sup>(1)</sup>		Brazil <sup>(2)</sup>
Environmental indicators (cont.)	2006	2005	2006	2005	2006	2005
Collected water by source						
Sea (m³x10³)	1,220,983	1,193,123	1,426,868	505,842	n.a.	n.a.
River/Stream (m³x10³)	340,287	942,368	59,980	60,536	n.a.	n.a.
Reservoir (m <sup>3</sup> x10 <sup>3</sup> )	1,539	1,765	n.a.	n.a.	n.a.	n.a.
Borehole (m <sup>3</sup> x10 <sup>3</sup> )	995	1,329	n.a.	n.a.	n.a.	n.a.
Well (m <sup>3</sup> x10 <sup>3</sup> )	19	22	n.a.	n.a.	n.a.	n.a.
Other	1,138	1,100	n.a.	n.a.		
Water use						
Cooling water (m <sup>3</sup> x10 <sup>3</sup> )	1,561,210	2,134,927	485,884	566,028	n.a.	n.a.
Raw water (m <sup>3</sup> x10 <sup>3</sup> )	3,461	4,786	956	n.d.	n.a.	n.a.
Drinking water (m³x10³) <sup>(5)</sup>	217	205	6	648	n.a.	n.d.
Wastewater						
Total volume of effluent treated in generation (m <sup>3</sup> )	7,326,026	7,448,430	703,461	768,049	n.a.	n.a.
Discharge into the sea (m <sup>3</sup> )	928,114	913,490	n.d.	n.d.	n.a.	n.a.
Discharge into internal waterways and estuaries (m <sup>3</sup> )	6,397,912	6,534,940	703,461	n.d.	n.a.	n.a.
Waste routed through to end disposal <sup>(6)</sup>						
Total waste (t)	458,538	459,141	660,457	631,382	3,887	1,672
Total hazardous waste (t)	2,901	3,941	372	248	210	138
Total non-hazardous waste (t)	455,638	455,199	660,085	631,134	3,677	1,534
Recovered waste (%)	99%	89%	79%	73%	100%	88%
Biodiversity <sup>(7)</sup>						
km of HV lines in classified natural areas	827	n.d.	39	n.d.	40	
km of MV lines in classified natural areas	7,289	n.d.	620	n.d.	3,259	n.d.
No. of substations in classified natural areas	21	n.d.	8	n.d.	17	n.d.
Wind farm sites in classified natural areas	698	n.d.	n.d.	n.d.	n.a.	n.d.
						n.a.
Social indicators						
Employment and labour relations						
No. employees	8,599	8.918	1,754	1,680	3,010	
Turnover	0.04	0.03	0.11	0.07	0.10	3,461
Employees' average age (years)	46	45	44	44	40	0.06
Absentee rate (%)	40	4.52%	3.64%	3.87%	40	39
Total training hours	296,511	168,686	36,260 (8)		4.27% n.d.	4.74%
Employees trained (%)	296,511	64%	68% <sup>(8)</sup>	40,630	n.d.	n.d.
Safety and accident prevention	94%	04 /₀	00%	/ 170	n.a.	n.d.
Installed capacity with OSHAS 18 001 certification	95%	83%	0%	0%	0%	n.d.
On-duty accidents (no.)		61	12	9	38	0%
Gravity rate (Tg)	60	300	12			23
Frequency rate (Tf)	323	4.40	3.91	128	149	82
Percentage of qualified suppliers	4.14		n.d.	3.77	6.05	3.38
i ciccinage ei doamen sobbiels	38%	n.d.	11.Q.	n.d.	n.d.	3.30
		1	L	1		1

(1) Trillo nuclear power station not included.

(2) Generation by Lajeado power station not included.

(3) This type of power station definition in Spain refers to cogeneration in the waste sector solely burning natural gas or waste gas from steel manufacturing.

(4) The 2006 value for the EDP Group is 499 g/kWh.

(5) The indicator for Spain does not include water consumption in administrative buildings and solely refers to HC Energía.

(6) The waste values include coal fly ash, which is deemed to be a sub-product in Portugal and is sold to the cement and concrete manufacturing industry.

(7) See Portuguese and Spanish definitions of HV and MV in glossary.

(8) Includes HC Energía, NEO Energía and part of Naturgás (Asturias area).

N.B. n.a - not applicable

n.d - not available

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2006 Annual Report and Accounts Sustainability Report Organisation of the EDP Group

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General Meeting of Shareholders elects new Board of Directors, which was in office until 30 June 2006

corporate governance after the amendments to the Portuguese Companies' Code came into force, approved by Decree-Law 76A/2006 of 29 March

Important events in the organisation of the EDP Group Signing of the public deed changing EDP's articles of association



# 3. Organisation of the EDP Group

The EDP Group operates in Portugal, Spain and Brazil and also has shareholdings in other countries, namely Guatemala, Cape Verde and Macao. It also plays an important role in the gas sector in the Iberian Peninsula, through Naturgás, the second largest market operator, and through Portgás in Portugal.

### 3.1. Corporate governance model

### a) Corporate governance

The EDP Group operates in harmony with best international practices of transparency, integrity and responsibility, abiding by the rules issued by the CMVM (Portuguese Stock Exchange Commission) and the Sarbanes-Oxley Act.

In 2006, it changed from a governance model involving a Board of Directors that delegated the everyday running of the company to an Executive Committee to a model based on a General and Supervisory Board (GSB) and an Executive Board of Directors (EBD). This new, dual form of governance came into effect on 30 June after being approved by the General Meeting of Shareholders of 30 March. The EBD is responsible for management and its work is monitored and supervised by the GSB and inspected by the statutory auditor.

The GSB consists of 16 non-executive members, nine of whom are independent.

The EBD consists of seven members who are elected by the shareholders at General Meeting of Shareholders. This board is described on page 128 of the Institutional Report and at www.edp.pt-investidores.

In addition to these bodies – Executive Board of Directors, General and Supervisory Board, General Meeting of Shareholders and Statutory Auditors, the company has the following corporate bodies: the Remuneration Committee of the General Meeting, the GSB Remuneration Committee, the Audit Committee and the Environment and Sustainability Board. The General Meeting's Remuneration Committee is appointed by the General Meeting of Shareholders and its remit is to fix the remuneration of the members of the corporate bodies, with the exception of the Executive Board of Directors. It consists of three nonexecutive members, at least two of whom are independent.

The EDP Audit Committee is one of the General and Supervisory Board's specialised committees and has the right qualifications and experience. It has three independent non-executive members.

The previous corporate governance model, in effect until 29 June, included an Environment Board. This has now been transformed into the Environment and Sustainability Board, which provides consultancy services on the environment and sustainability to the Executive Board of Directors. The Environment and Sustainability Board consists of five personalities of acknowledged competence, who were elected by the General Meeting of Shareholders on 30 March based following proposal by the Executive Board of Directors.

The EBD reorganised the corporate centre to comprise 16 offices, two business units (Energy Management and Gas) and a General Secretariat and Legal Advice Office, in order to ensure the strategic alignment of the company's central structure with its different management areas and guarantee organisational and cultural cohesion within the EDP Group.

The Institutional and Corporate Governance Report contains detailed information on corporate governance.

# 2006 Annual Report and Accounts Sustainability Report Organisation of the EDP Group





# b) Organisation of sustainability

The organisation model for sustainability and the environment approved in 2005 remained the same in 2006.

The main responsibilities of the Environment and Sustainability Office (GSA) are:

- Assisting the management in environmental and sustainability matters, helping to define corporate policies and strategies and set and supervise targets and goals, and assisting in its relations with the Environment and Sustainability Board;
- Reporting on the company's sustainability activities;
- Coordinating strategic environmental activities at the Corporate Centre and guaranteeing that the group's operations are in line with the guidelines issued by the EBD;

monitoring the most important environmental issues for the Group's business and proposing overall company strategies.

An Environment and Sustainability Committee that works in liaison with the GSA to draw up and update, every year, the EDP Group's medium- and long-term sustainability strategy to be submitted for approval by the EBD. It also approves annual action plans, defining the group's goals and targets to be submitted for the EBD's approval and monitors the progress of approved action plans. The committee also monitors sustainability matters between the corporate centre and the business areas and companies.

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**2006 Annual Report and Accounts** Sustainability Report **Society and Meholders** 



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### 4.2. Commitment to suppliers

# 3. Commitment to customers a) Customers and energy b) Customer satisfaction c) Quality of technical service d) Quality of commercial service e) Service f) Customers with special needs g) Promotion of access to energy h) Awards 4. Contribution to social development a) Giving back to the community b) Investment in society c) Education and institutional commitments d) Cooperation with similar companies e) Social commitment f) Museum, heritage and culture g) The environment h) Safety i) Volunteer work 5. Commitment to investors a) EDP in the capital market b) EDP Group's shareholders structure c) Dividends d) Communication e) Risk management

# 2006 Annual Report and Accounts Sustainability Report Society and stakeholders







Customers

Suppliers

in 2006

×

Approval of EDP's new patronage and ponsorship policy

Beginning of birth Ponsorship project

Partnership between EDP and Associação Nariz Vermelho [Red Nose Association]

Award of EDP Solidária Prize 2005

Opening of nev electricity museum in Portugal

Star Wars exhibition

Increased cooperation with the National Ballet Company, Serralves Foundation and Camões Theatre

Sponsorship of the documentary on Álvaro Lapa by Artistas Unidos

Employees participate as volunteers in an initiative organised by Junior Achievement Portugal

Sponsorship of Second Environment and Competitiveness Conference

Contribution to social development

Banco Espírito Santo S.A. announced 2.17%

Baltic-SGPS announced 2% shareholding in EDP on 3 February 2006

Caixa Geral de Depósitos announced, on 31 March 2006, that it now owned a 5.098% shareholding in EDP. This shareholding was reduced to 5% on 29 December

lberdrola announced to the Spanish Securities' Commission on 27 April 2006 that it had increased its shareholding in EDP from 5.7% to 9.5%

EDP announced annual financial results for 2005

Payment of gross dividend of EUR 0.10 per share (2005)

Risk portal went online

Investors

The EDP Gr

ine EDP Group's company in Brazil adopted the principles of the Global Compact, a United Nations initiative

# International initiatives

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# 2006 Annual Report and Accounts Sustainability Report Society and stakeholders



"Our business is, by nature, based on fixed assets, but it is EDP's people who will make the real difference in this intensive-capital sector".

António Mexia (EBD Chairman)

- 4. Society and Stakeholders
- 4.1. Commitment to employees
- a) Human resources

# Characterisation of employees

In 2006, the EDP Group had 13,363\* employees. Of these, 8,599 worked in its business areas in Portugal, 3,010 in Brazil and 1,754 in Spain.

# Employees by geographical area



(\*) This figure does not include the 212 employees in the corporate bodies.

There was a year-on-year reduction of around 6% in the number of employees as a result of the Group's policy of disinvesting in telecommunications and the growth in the gas area.

### **Employees by business area**



	Portugal	Spain	Brazil
Electricity	6,843	1,293	2,966
Telecommunications	390	0	0
IT	10	0	0
Services	612	142	0
Others	645	0	44
Gas	99	319	0
Total	8,599	1,754	3,010

Around 19% of our employees are women, 12% of supervisory positions are women and 25% senior managers are women. Only three of the EDP Group's 13,363 employees work part time.





# EDP Group employees by gender (%)

# **Employee involvement initiatives**

Some of EDP's more innovative initiatives aimed at its employees have met with a high degree of participation and interest.

- Internal mobility management (GIM) is an electronic forum where employees can announce their interest in new work and activities and find out about mobility opportunities within the EDP Group. Fifty-eight mobility requests were received from employees of the different companies in the Group. These employees are currently being profiled so they can be assigned to other jobs and locations. Under international labour regulations, 18 employees agreed to work abroad in companies in Spain, Brazil and Cape Verde.
- "30 Ideas for the Future" EDP challenged its employees to participate in this contest for ideas that might have an impact on the company's management structure. Thirty ideas were selected from a total of 184 from different geographical areas. The best three ideas voted by employees on the EDP intranet were presented at the company's 30th anniversary party.



# b) Human capital management

In 2006, 474 employees were recruited into the EDP Group and 82% were given permanent positions.

### **Recruitment in 2006**



# 2006 Annual Report and Accounts Sustainability Report Society and stakeholders



# **Commitments in 2006**

Progres		Goal
Complete	*	mplementation of internal employee mobility system
102 employee admitter		Hiring 200 young managers
Ongoin		mplementing downsizing plan
Ongoin		Nanagement appraisal plan
Complete	*	0 strategic management raining courses
Complete	*	Two courses on effective communication
Ongoin		ndividual follow-up sessions on effective communication
Ongoin		3ehavioural feedback course
Ongoin		External and in-house coaching programmes
Ongoin		dentification of young people with potential
Ongoin		Nentoring programme
Ongoin		ralent programme
Complete	*	Sustainability awareness campaigns in the EDP Group
Ongoin		ean Programme to increase officiency and reduce waste
Ongoin		/ital Project for efficiency at Sāvida
Complete	*	extending health promotion o anti-stress support
Complete	*	Dissemination of Principles of Sustainable Development n Portugal, Spain and Brazil
Complete		Dissemination of Code of Ethics in Portugal, Spain and Brazil

In Portugal EDP admitted 102 new employees to the electricity business, 24 of whom were women.

Se Not completed

Of these employees, 51 have university degrees and 12 are top managers with the company.

In 2006, 1,135 employees left the group, 167 of whom were part of the 2006/2008 Staff Adjustment Plan, which is part of the process of simplifying the organisation. Employees doing jobs that could be done with fewer resources are eligible. They are either assigned new jobs or relocated. If this is not possible, EDP begins negotiations for their redundancy. The plan also covers employees on loan to companies in which EDP has a minority shareholding, with a guarantee of a continuing contract at the host company and no possibility of returning to the Group.

The minimum advance notice for operational changes is 30 days, though it may be as much as 90 days, depending on the complexity of the situation. The EDP Group does not discriminate in terms of pay between men and women doing the same job.

### c) Talent

EDP continued the work begun in 2005, when it set up the Employees' Development Support Office to attract and retain the best professionals in order to aid the group to face its strategic challenges. This office identifies and develops potential talents in liaison with the Executive Board of Directors, the other company offices and the Group's different business areas.

In 2006, EDP introduced several measures to reward excellence and merit and develop its employees' individual skills. For example:

- Start of the Talent Project, with three main goals:
  - Sustaining the EDP Group's vision in a strategic integrated human resource management plan;
  - Rethinking human resource management policies in order to enhance EDP's critical competences;
  - Implementing national and international best practices in integrated human resource management.


### **Talent Project**

This project is based on the following macro-processes.

- Talent strategy, which aligns human resource management policy with the Group's strategic goals;
- evaluating potential and performance, which includes defining and implementing an assessment and performance model based on three aspects: the employee's potential, individual performance and corporate performance;
- reward management, which involves defining a clear, transparent, transversal reward policy for all Group employees;
- development of skills, which includes defining a strategy for developing the skills of all Group employees, based on the business and market cycle. The skill development plan is divided into three levels of intervention: developing skills for all management staff, a development programmes for all employees with high potential and successor programmes for employees with the potential to succeed superior officers;
- Career management, which involves defining career plans, grading tasks, criteria and requirements for jobs and a mobility and succession policy.

The Talent project will be implemented in this context in 2007.

A leadership training programme called Managing Change in partnership with Universidade Nova de Lisboa. Ten courses were held, attended by 269 managers from EDP's macro-structure, directors and managers with potential from the companies in Portugal, Spain and Brazil. The courses covered strategy and the creation of value, process and quality management in services, organisational culture, people management and change management.

- 17 advanced general management training courses at universities of renown in Portugal and abroad were also held. These were attended by 203 executives from the Group's different companies, and the objective was to enhance and develop specific management skills.
- Some behavioural training courses were given to promote professional development and continuous adaptation of management staff (top management and managers with potential) to the Group's strategic needs. This included training in effective communication (two courses) for 17 employees and behavioural feedback (one course) for nine employees.
- There were several external and in-house coaching programmes to develop behavioural skills. In 2006, external coaching was given to 10 employees and in-house coaching to seven.
- Individual development plans were defined for 45 employees on the basis of management appraisals conducted in previous years. Their purpose is to develop the skills, knowledge and professional growth of managers and management staff at EDP. In 2006, around 1,000 employees were involved in the management appraisal, 621 in Portugal, 151 in Spain and 180 in Brazil.
- In 2006, EDP defined a process for identifying young people with potential in order to retain talented young managers. One hundred young people were identified.
- We began mentoring programmes for some employees with potential in order to monitor and guide their career development and align them with the Group's strategy.
- The Chairman of the Executive Board of Directors organised two working breakfasts for young people, in order to get them involved in the company's mission and values. Some 20 young people with promise have already participated.



### d) Social responsibility

#### Labour benefits

Labour relations with most of the EDP Group's employees fall under the Collective Labour Agreement. According to this agreement, the company provides its employees with a series of structured benefits, including children's study grants, study grants for student workers, supplementary sickness and maternity benefits and a lifelong health plan complementary to the National Health Service.

The 3% of employees who have individual employment contracts are covered by the EDP Flex Plan, a package offering benefits over and above basic pay. An education benefit and retirement/education savings plan are two examples of rewards offered by the EDP Flex Plan. In 2006, the pension fund, in which the plan is included, was considered the best Portuguese fund. Under this plan, EDP makes a significant co-payment to health insurance for employees and their families.

Summer camps are organised every year for all employees' children, providing a full vacation in a healthy environment in contact with nature, to complement the family holiday. In 2006, 892 children aged between 6 and 15 years participated.

The EDP Group's Staff Club, mostly funded by the company, offers its members a vast selection of cultural, recreational and sports activities and special conditions in the acquisition of certain goods and services resulting from agreements with different institutions. The club has around 17,500 members including working employees and retirees from EDP, REN (Redes Energéticas Nacionais) and EDINFOR (the Group's IT service provider). HC Energia, the EDP Group's company in Spain, has approved some social responsibility measures to help employees to reconcile their working and family life. The company pays for costs of a day care up to the age of three, chosen by its employees. These costs are equivalent to half the maternity subsidy granted to working mothers in Spain. The company also allows them the choice of working flexible hours by providing access to email from any computer with an internet connection.

EDP has 17,475 retired employees. In 2006, it signed an agreement to increase cooperation with AREP (Association of EDP Retirees). This cooperation involves supporting disadvantaged EDP retirees and will be undertaken in collaboration with social solidarity institutions. The Association of EDP Retirees provides retirees, working members and their spouses with social and cultural support in the areas of social security, health, housing and culture.

In Brazil, new plans were set up to improve pensions, healthcare (medical and hospital care, medication and other plans), education and insurance in order to improve the teams' satisfaction and productivity while increasing the company's investment in this type of initiative.

The companies' performances and the results achieved were once again shared with their employees in recognition of the individual and team contribution and productivity. This operation involved a total of EUR 28.2 million. The performance of all EDP employees is assessed on an individual basis every four months.



### Training

The group's investment in the continuous development of employees is essential to meet the strategic challenges faced. Investment in training in Portugal in 2006 comprised 8,145 employees, 296,511 training hours and 2,770 training courses.

Training by training area (%) - 2005





Total trainees by training area (%) - 2005



O Technical O Organisation O Management

### Training by training area (%) - 2006











Average annual training hours by professional category

	Training (h)	Total of employees	N° of hours by employee
Directors	19,135	302	63
Senior management	73,301	1,554	47
Middle management	8,295	245	34
Intermediate management	7,765	144	54
Skilled workers	180,649	5,576	32
Semi-skilled workers	7,016	290	24
Other	351	34	10
Total	296,511	8,145	36



Training courses were organised for all EDP employees in Portugal, with special focus on sustainability. The training was supported by tool called Chronos, provided by the World Business Council for Sustainable Development (WBCSD) and BCSD Portugal<sup>(1)</sup> (see page 60 of this section for more information on this organisation). The 389 training courses in Sustainable Development were attended by 6,263 employees in a total of 25,082 training hours.

In 2007, this type of training will be extended to Spain and Brazil.



The Training, Qualification and Employment Programme for people with special needs continued in Brazil in 2006. Those selected are mostly people who are totally dependent on their families and represent 5% of ENERSUL's permanent employees.

### **Employee satisfaction**

In line with the monitoring carried out since 2004, an employee satisfaction survey was conducted in Portugal in 2006. Employees answer the questions measuring their satisfaction with the company and their jobs and their degree of motivation. Participation was 30% in 2004, 67% in 2006 and 77% in 2006.

(1) Conselho Empresarial para o Desenvolvimento Sustentável





### EDP employees' satisfaction and motivation

### Health

In Portugal, EDP has 87 disabled employees.

As part of its health promotion initiatives, EDP awarded the Sports/Physical Fitness Prize for the second year running to 12 EDP employees for sports and physical activities. This prize is promoted by Sāvida and EDP Staff Club.

The ongoing Vital Project is designed to increase the efficiency and quality of service of Sāvida. Sāvida is the Group company providing health services to retirees and employees and their families. Some examples of action taken in 2006 are:

- The opening of a contact centre for making appointments in some areas of the country;
- The renegotiation of specialist appointments to ensure standardised costs and levels of service all over the country, in liaison with the potential offered by the National Health Service;
- The rationalisation of the organisation and operation of Sāvida's health centres using IT tools for doctors in the clinical management of their patients.

#### Workers' representation

In 2006, 8,688 workers were union members (represented by 35 trade unions), corresponding to 65% of all employees in Portugal, Spain and Brazil.

There were 615 working hours of strikes, when some workers joined industrial action organised by trade unions nationwide.

In 2006, HC Energía launched a company intranet area, for the main trade unions to publish information accessible to all company employees.

In mid-2006, the Chairman of the Executive Board of Directors met with employee representatives to inform them of EDP's strategic plan for 2006 to 2008.

### Safety and accident prevention

EDP's safety policy was reviewed, showing the company's commitment to occupational safety from the point of view of continuous improvement. We are aware that working in a safe, healthy environment is decisive to employee satisfaction and higher productivity and therefore contributes to successful results. EDP's safety policy is detailed on www.edp.pt-sustentabilidade.

Annex 4 of the Collective Labour Agreement contains rules on occupational safety and hygiene.



EDP organised 17 accident drills at different industrial and administrative facilities to test the effectiveness of emergency plans. The drills involved the police, fire brigades and civil defence organisations.

At EDP there are 104 elected workers' representatives for occupational safety, health and hygiene (around 0.8% of all the Group's employees). They belong to different organisational unit safety committees and subcommittees and have the same rights as shop stewards enshrined in the law and the Collective Labour Agreement. In 2006, there were 97 safety committee and subcommittee meetings to discuss safety programmes and action plans, occupational accident reports and corrective measures.

In Portugal, in 2006 there were 27 experts and 45 specialists working in occupational hygiene and safety, 76% of whom were certified trainers.

In spite of all efforts to the contrary, the number of on-duty accidents involving EDP employees remained the same as in 2005.

EDP's accident frequency rate in the electricity sector in Portugal was 4.43 accidents per million hours worked. The compound rate at EDP and electricity generation and distribution service providers was 5.75.

The rate for the EDP Group as a whole was 4.61 accidents per million hours worked.

EDP's accident gravity rate in the electricity sector was 345 days lost per million hours worked. The gravity rate for the Group was 252.

Unfortunately, two EDP electricity sector employees died in Portugal, although their deaths were not directly related to actual industrial activity. One was killed in a road accident while on duty and the other drowned in a very severe storm. Where the Group was concerned, one employee of EDP Brasil died by electrocution. In spite of monitoring and awareness campaigns, there were two deaths by electrocution at EDP service providers in Portugal.

In the EDP Group's international universe, there were unfortunately six deaths among service providers, five by electrocution and one by a fall.

# On-duty accidents and frequency rate (Fr) in Portugal (electricity sector)



At the end of 2006, the occupational safety, health and hygiene management systems of all of EDP Produção's 26 major hydroelectric power stations and all the thermoelectric power stations, i.e. 100% of thermal generation and practically 100% of hydroelectric production, had been certified by Lloyd's Register Quality Assurance.

### e) Code of Ethics

the EDP Group's Code of Ethics sets forth the values promoted by the company in the management of its business and the behaviour expected from employees and suppliers. All employees have received and acknowledged receipt of the Code of Ethics. For more details, please go to www.edp.pt-sustentabilidade.



There are no violations of the human rights of native populations in the EDP Group.

In 2005, an Ethics Committee was set up to draft the Code of Ethics. It had three members, one of whom was a non-executive member. It met once at the end of the term of office of the previous administration.

Through this committee, EDP will ensure recognition of its Code of Ethics by external stakeholders and create the right conditions for its application under the Sarbanes-Oxley Act.

### Commitments for 2007

Goal	Progress
Implementation of downsizing plan	Continues in 2007
Increase in cooperation between EDP and the EDP/REN Pensioners' Association	New
Management appraisal project	Ongoing
Individual follow-up sessions on effective communication	Continues in 2007
Completion of behavioural feedback course	Continues in 2007
External and in-house coaching programmes	Continues in 2007
Identification of young people with potential	Continues in 2007
Mentoring programme	Continues in 2007
Talent programme	Continues in 2007
EDP Academy – Programme for Developing Young People with Potential	New
Leadership course	New
NP ENISO 9001 certification for EDP Produção	New
Providing employees in Spain with an email address for more flexible working hours	New
Lean Programme	Continues in 2007: other thermal and all hydroelectric plants
Regulation and application of Code of Ethics	New
Launch of Vital Project	Continues in 2007

#### 4.2 Commitment to suppliers

EDP Valor, the company focused on providing services between Group companies and procuring from suppliers, contracted products and services from around 6,000 external suppliers, at a total expenditure of around EUR 741 million.

### External supplies and services (EUR thousand)



## External supplies and services per installed MW (EUR thousand)



In 2005 and 2006, the groundwork was laid for a single procurement system for the EDP Group. Since November 2005, the group's companies in Portugal and Spain have been using Synergie, a computer application that assembles data for each ongoing procurement process to facilitate negotiating synergies between the company's procurement structures. Last year, Energies do Brasil was integrated into the procurement structure.

The Executive Board of Directors also launched the OPEX Programme, the objective of which is to achieve annual savings of between EUR 70 and 90 million in procurement and staff costs up to 2008.





### Commitments undertaken in 2006

Goal		Progress
Development of cooperation in buying area in Brazil	*	Completed
Expansion of electronic communication and electronic self-billing to suppliers of EDP Produção and EDP Distribuição		Ongoing
Circulation of Code of Ethics to distributors		Ongoing

The new EDP website features a supplier qualification system (SQF) in the partnership section, which has been updated.

The SQF is a tool by which data are recorded, qualified and updated electronically. EDP uses this application to record data obtained from suppliers on the product or service that it wishes to qualify, such as verifying occupational safety and hygiene policies. EDP has four registration levels depending on the strategic interest of the product or service supplied. "It is a privilege for Siemens Power to participate in the report of the company that is currently the largest customer of Siemens, S.A.

In Siemens Power, in the embodiment of one of its corporate principles, "we give our customers the power to stay competitive", has cultivated a solid partnership with the EDP Group for decades now. This partnership has been essential to the competitiveness of both organisations and has been a source of critical thinking, innovation and process improvement.

We have stood together in facing up to the new challenges posed by the liberalised electricity market, contributing our knowhow to developing innovations that will increase the energy efficiency of equipment and improve the monitoring of energy quality in order to guarantee the levels of quality and service continuity provided by EDP to its customers.

As a company that is strongly committed to the protection and sustainability of the environment, EDP has given just value to the environmental compatibility of Siemens products, granting Siemens a position as a player of reference in the renewable energy market.

Contributing to achieving the national goal of generating 39% of electricity from renewable sources by 2010, Siemens Power and its portfolio of products and services have enabled EDP to optimise costs and benefit the environment by reducing emissions and the consumption of resources".

Silva Marques Managing Director of Siemens Power



In 2006, the SQF covered 38% of qualified suppliers from which more than EUR 75,000 of purchases had been made.

The information is gathered in order to establish relationships with suppliers based on fundamental principles such as integrity, healthy competition, environmental protection and civic behaviour, based around the compulsory awareness of the EDP Group's Code of Ethics. This procedure will soon be extended to the websites of Energias do Brasil, HC Energía, Naturgas Energia and Portgás.

In 2006, 1,822 suppliers were registered in this application. In 2007, EDP will introduce a corporate initiative aimed at strengthening relations of trust and partnership with suppliers. This programme will take into account, among other factors, familiarity with its Code of Ethics and encouragement of exceptional performance in fields such as quality, the environment, safety, productivity, innovation, new technologies and cost reduction.

In 2006, EDP began the electronic auto-billing of suppliers of EDP Produção and EDP Distribuição. This is expected to encompass around half the 340,000 invoices from suppliers that are processed and accounted for every year.

#### Commitments for 2007

Goal	Progress
Extension of supplier registration service to EDP Group companies in Portugal	New
Expansion of electronic communication and electronic self-billing to suppliers of EDP suppliers	Continues in 2007
Circulation of Code of Ethics to distributors	Continues in 2007

"The challenge of creating value for our shareholders cannot be separated from the goal of serving our customers with quality, rigour and close attention".

### António Mexia

(Chairman of the Executive Board of Directors)

### 4.3 Commitment to customers

### a) Customers and energy

EDP served some 11 million customers in 2006, geographically distributed as shown in the figure below.

# Geographical distribution of the EDP Group's customers



In 2006, 92% of customers had electricity supply contracts, 62% of whom were supplied by distribution and supply companies in Portugal, 32% by distribution and supply companies in Brazil and 6% by distribution and supply companies in Spain.





EDP had around 800,000 gas customers in 2006, 80% of whom were in Spain and 20% in Portugal. These customers consumed 22,006 GWh equivalent.

There was an increase of about 4% in the overall amount of electricity distributed, which went from 76,092 to 78,913 GWh. Roughly 77% of this energy supplied 9.6 million customers in the regulated market.

# Distribution of electricity to EDP customers by type of market



### **b)** Customer satisfaction

During the year, EDP once again monitored the main residential and industrial customer satisfaction indices in terms of products and services.

Residential customer satisfaction in Portugal (electricity sector) (%)



Industrial customer satisfaction in Portugal (electricity sector) (%)



The lower level of satisfaction with service points to a need to implement a customer relations strategy based on a global service and competence model forming a truly market-oriented culture.

In Portugal, almost 13 million customers were served, around 21% of them in person. The graph below shows how customer service was distributed.



### Breakdown of customer service, Portugal (2006)



More than 3 million customers were served in Brazil. The graph below shows their distribution.

### Breakdown of customer service, Brazil (2006)



#### Commitments undertaken in 2006

Goal		Progress
Definition of EDP's positioning in the normal low voltage market in Portugal	*	Completed
Systematic telemetering at free-market, normal low-voltage customers in Portugal		Ongoing
Electronic billing project and integration with Via CTT	*	Ongoing
"Luz para Todos" programme in Brazil		Ongoing
Award of 2005 EDP Electricidade e Ambiente Prize	*	Completed
Training course for in-house facilitators who will train front-line employees in order to improve customer service	*	Completed
Completed Partially completed	Se Not completed	

#### c) Quality of technical service

In Portugal, technical service quality measured by TIEPI (installed-power equivalent interruption time) was higher than in 2005, due to bad weather and the disaster plan implemented after problems in the electricity grid in Germany. Quality of service is a constant concern for EDP and we seek to find the best forms of sustained improvement in technical service quality. Initiatives undertaken in this area are detailed on page 59 of EDP's Institutional Report or can be downloaded from www.edp.pt-investidores.

END (energy not distributed) figures in 2006 also reflect the change in TIEPI.





### Electricity supply quality indicators in Portugal



At HC Energía in Spain, the index measuring the quality of electricity supply (TIEPI) was 113 minutes. This figure is higher than in previous years due to bad weather and incidents at two substations in September and October.

The quality indicators of the three Brazilian EDP group distributors (Bandeirante, Escelsa and Enersul) were within the reference values set by the Brazilian regulator (Annel), as show in the graphs below.





# Equivalent duration of interruption per customer (hours)







# Equivalent duration of interruption per customer (hours)

### d) Quality of commercial service

In Portugal, there has been sustained growth in the quality of the commercial service provided to customers in the distribution grid, shown by compliance with the General Commercial Service Quality Indicators of the Service Quality Regulations

# General EDP commercial service quality indicators in Portugal (2006)



#### Legend:

- 1 Cost estimates for low-voltage lines and incoming connections (up to 20 working days)
- 2 Execution of low-voltage lines and incoming connections (up to 20 working days)
- 3 Connections to the low-voltage grid (up to 2 working days)
- 4 Reading of meters (at least one reading a year for low-voltage customers)
  5 Attendance at customer service centres (up to 20 minutes' wait)
- 5 Aftendance at customer service centres (up to 20 minute
- 6 Centralised telephone service (up to 60 seconds' wait)7 Written enquiries (answer in up to 15 working days)
- 8 Percentage of customers with service restored in up to four hours (following accidental outages)

Measures were adopted to optimise the use of metering equipment and a pilot tele-metering project involving 120 normal low voltage customers was launched in order to improve service quality in Portugal.

In Spain, a customer communication channel was set up to enable customers to access the data of regulated-price gas and electricity contracts. Customers can also look up their consumption and billing information and download copies of their invoices.

### e) Service

The following activities were particularly important in 2006.

EDP launched the edp5D service as part of its development in the liberalised market, in September 2006. This service supplies customers with electricity generated from energy sources with low environmental impact, i.e. natural gas, renewables and around 25% of imports (see www.edp.pt-mercado liberalizado).

The main characteristics of the edp5D service are as follows:

- Economy and efficiency through the edp5D tariff, which will benefit a significant number of customers and advise customers on how to reduce consumption;
- Comfort through edp5D assistance, technical assistance insurance for electricity, gas, domestic appliances and air conditioning;
- Proximity specialised support on the edp5D helpline – 808 5D5D5D;
- Innovation an electronic invoice and tele-metering services will soon be launched;
- Environment the edp5Dverde tariff guarantees to customers that the energy they use comes from renewable energy sources. EDP will also invest EUR 15 per customer per year in a clean technology R&D fund.



In 2006, around 18,000 customers subscribed to this new service and around 2% of them now have greentariff electricity contracts. The edp5Dverde tariff will be the same in 2007 as the edp5D tariff for customers who adopted the service in the last few months of 2006.

### Free market customers in Portugal (2006)



In Portugal, EDP is currently implementing a project for introducing electronic invoices and integration with ViaCTT. This is a national service available to all individuals, companies and institutions by which they can obtain a digital version of their correspondence and can group several electronic invoices, bank statements and other documents on a single site.

HC Energía is going to implement an electronic billing service in 2007 for customers in the regulated gas and electricity market. This service is based on an electronic signature system that guarantees the authenticity of its origin and content. HC Energía also took customer loyalty measures for domestic customers in its "Fórmula Ahorro" plan. The plan includes electricity and gas supply, a maintenance service called "Funciona" (for the maintenance of gas and electricity installations and appliances) and the "Pontos HC" programme (giving points to customers, who can then exchange them for offers, donate them to NGOs or benefit from promotions when acquiring services). The campaign ended with contracts with about 60,000 gas and electricity customers on the free market.

### f) Customers with special needs

EDP is adapting its 40 stores in Portugal to ensure access for reduced-mobility customers. By the end of the year, 26 had already been adapted. Of the others, seven are awaiting permission from local authorities, 4 are being approved by their building administrations and three are preparing to submit applications for licences.

In 2006, in Portugal, EDP had 457 special-needs customers, which is 10% more than in 2005. Of these, 45% depend on medical equipment that runs on electricity, 2% are hearing impaired, 9% percent are physically disabled and 44% are sight impaired. In the event of scheduled interruptions to the electricity supply, the customers who depend on electrically powered equipment essential to their survival are warned at least 36 hours in advance. In the event of malfunctions in the distribution grid, these customers are given priority, as stipulated in Article 54.4c of the service quality regulations, which are available at **www.edp.pt-EDP Distribuição**.





Total EDP customers with special needs in Portugal

In Portugal, the number of customers who had opted for the social tariff remained the same at around 4,000. This tariff is charged by the seller of last resort to electricity customers at their fixed residence, with contracted power up to 2.3 kVA and annual consumption of no more than 400 kWh. Since 1 January 2007, EDP Serviço Universal has been the seller of last resort. This new company was set up by EDP and is legally independent from its other activities (for more detailed information, see the Institutional Report or visit www.edp.pt-investidores).

#### Social tariff customers in Portugal



In Brazil there are around 5,700 customers with special tariffs, which is 16% more than in 2005. The Projecto Integrar scheme provides families with lower purchasing power with a regular, efficient electricity supply. All they have to do is provide proof of residence. Another important measure was visits to 29,052 homes that had no electricity contracts with the company, resulting in the regularisation of 9,175 customers.

### g) Promotion of access to energy

In Portugal, EDP Distribuição continued to work, under the Agris Programme<sup>(1)</sup>, towards providing access to electricity for farms and small agro-industry units, with a view to enabling rural populations to improve their income and quality of life. In 2006, technical investments of around EUR 4 million were made to this end.

In Brazil, 19,347 customers in Mato Grosso do Sul have been reached by the Luz para Todos Programme. In 2006, 9,860 customers benefited, 5,926 of whom were on native reserves. Due to the cultural, social and environmental specificities of native villages, access and the setting-up of the grid was part of joint action by the National Indian Foundation and State Management Committee of the Luz para Todos Programme. The population in question was given training on the safe use of electricity.

### h) Awards

The prize for the sixth edition of EDP Electricidade e Ambiente 2005 was awarded to the best customers with contracts for over 50 kVA in the industry and services and other activities categories (for more detailed information, see page 76 of this report).

 A regional programme called the Agriculture and Rural Development Measure as part of the III Community Support Framework.

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For the second year running, the Customer Service Centre at HC Energía, which served more than 200,000 customers, won the Gold Call Center Award in the utilities category (organised by IFAES).

### Commitments for 2007

Goal	Progress
Systematic telemetering at free-market, normal low-voltage customers in Portugal	Ongoing
Electronic billing project and integration with Via CTT	Ongoing
Electronic billing service to be implemented by HC Energia	New
Training and qualification of employees to raise their awareness of customer expectations and improve quality of response	New

### 4.4. Contribution to social development

### a) Giving back to the community

In 2006, EDP contributed around EUR 266 million to the community in the form of taxation.



#### **b)** Investment in society

In 2006, EDP invested around EUR 6 million in sports, science, education, the environment, culture and social solidarity. Investment was 31% up on 2005, representing around 1.4% of EDP's operating investment in Portugal.

#### Donations and Sponsorship in Portugal (EUR)



Around 56% of EDP's donations and sponsorships were in the field of sports and 21% in culture. Where sports were concerned, it sponsored the Tour of Portugal bicycle race, the Ponte 25 de Abril Half Marathon, with some 50,000 participants, the Portuguese Mini-Marathon over the Vasco da Gama Bridge, with over 20,000 athletes, and the Mulher e a Vida race, in which around 5,000 people participated, including 300 of EDP's female employees. In the area of culture, EDP is a patron of the Companhia Nacional de Bailado [national ballet company] and Teatro Camões theatre.



### Sponsorship and patronage in Portugal by area





At the end of the year, EDP approved a new strategy for social responsibility and patronage of the arts. Its new policy identifies the main areas of action, which are health, education, sustainability, science and innovation, and heritage and culture projects. These five areas will be covered by around half EDP's patronage and sponsorship budget, i.e. around EUR 5 million a year for the 2007 to 2009 period. The highlight of the health area of in this new strategy is the birth support project, which in an initial phase involved donating cribs to Alfredo da Costa Maternity Hospital. The aim is to help children born into disadvantaged families and foster better conditions in Portuguese maternity hospitals.

Expenditure on social, cultural and sports initiatives in Spain increased by 20% from EUR 997,000 to EUR 1,198,000.

### Donations in Spain by area







In Brazil, EDP invested around EUR 1.3 million in sports, science and education, the environment, culture and social solidarity.

### Donations in Brazil by area



### Commitments in 2006

	Progress
*	Completed
*	Completed
*	Completed
	* *

### c) Education and institutional commitments

In 2006, the EDP Group was involved in the community in a number of activities. The Carregado Power Station is one example.

- The representatives of the power station were given places on the Eco boards – Carregado Integrated Basic School and Pêro de Alenquer Secondary School.
- 1,088 study visits were made to the power station by a host of education establishments.

There were 30,326 visits to electricity generating plants belonging to Portuguese companies of the Group, which is an increase of 3.7% on 2005.

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Number of visitors to EDP's generating plants, Portugal

In social development, EDP began new schemes involving different targets. For example, a number of initiatives at summer camps for employees' children involved 15-year-old participants in social work, such as crèches, free time activities, care homes, fire brigades and civil defence. Seventy-eight young people took part.

In 2006, we also continued the work of the Centre for Recognition, Validation and Certification of Competences (CRVCC), which opened in 2002. EDP was the first company in Portugal to be accredited as a promoter of this type of recognition centre, which is under the responsibility of EDP Valor's Training and Documentation Platform. It is one of the hundred or so centres located all over the country accredited by the Department of Vocational Training (DGFV) of the Ministry of Education.

The campaigns are aimed at EDP employees who do not have today's compulsory school qualifications (9th grade) and at the population of Seia, Lisbon and Porto. In 2006, 129 certificates were issued by the DGFV, 77% of which were awarded to people outside the Group. The skills of sixty people were also assessed and recognised, 47% of whom were from outside the Group (go to www.dgfv.min-edu.pt for more detailed information).



"The first time I witnessed the care that the company takes in its relations with the community was back in the time of the hydroelectric power stations in the north, whose corporate culture EDP inherited. Not only was there a set of rules that had to be strictly obeyed, the company also assigned experienced technicians to fulfil them. They did their jobs and always sought solutions that were fair enough to be accepted by those who had to sell their land for the construction of dams or for reservoirs. They rarely had to resort to compulsory purchase orders. This shows not only a great capacity for dialogue but also attention to the rights of others

At the other extreme of EDP's cycle of activity, downstream distribution, I have the impression today that customers' invoices are all justified and that, in cases of malfunction, there is a visible concern for providing a rapid response with competent employees. The customer is always the company's priority concern".

Luís Valente de Oliveira Director of FLAD

In fulfilling its obligations as owner of 50% of the capital of the FORINO School of Technology, EDP's service company EDP Valor continued to be a member of the board, keeping abreast of its management at all times. This school belongs to the network of technology schools overseen by the Ministry of the Economy and Innovation. As in previous years, EDP sponsored one of the Forino 2006 awards for excellence given to the year's best graduate in the Energy and Automation Technology Course. For more details, visit www.forino.pt. EDP has a cooperation agreement with the Égide Association of the Economics Faculty of Universidade Nova de Lisboa and it also sponsors the MBA Programme. In 2006, it provided total funding of EUR 125,000. Several programmes were set up under this partnership, including training in strategic leadership, which constituted an instrument of change for the Group. Ten training courses were held in 2006 (see page 35 of this report).

The company also believes in developing corporate management skills, reflected in the EUR 57,000 donated to the 2006 Global Management Competition.

In Portugal, EDP provided 99 internships as its way of bringing young people closer to the business world and to help attract potential new employees.

It also provided 93 student work placements, which helped train students and/or enable them to complete their courses. It also arranged for 15 work placements for IAESTE (International Association for the Exchange of Students for Technical Experience, resulting in exchanges between Portuguese and foreign students and arranged for 21 internships for the Youth Foundation, through PEJENE (Company Internship Programme for University Students).

In Spain, the Hidrocantábrico Foundation offered 110 final-year students from the Institución Académica Asturiana internships in different areas to enable them to get in touch with working for a real company and get involved in corporate management.

In Brazil, important contributions included the "Ler" Project, a new feature in social investment in education, and the continued partnership with the NGO, Instituto Luther King, which offers free preuniversity courses for disadvantaged young people.



### d) Cooperation with similar companies

Under the knowledge and experience exchange agreement established between the companies in 2006, EDP undertook a number of cooperation and internship activities with other utility companies. They included:

Angola's electricity company (ENE), which involved ENE directors from the areas of generation, transmission and distribution, who had working sessions over several weeks culminating in a visit by the ENE Board of Directors for a working session with the Executive Board of Directors at EDP. Eighteen ENE managers and four directors from ENE came to Portugal;



- Electricidade de Moçambique EDP received a visit from four senior managers for internships;
- Societé Tunisienne de Electricité et du Gaz Four directors spent a week familiarising themselves with the way in wich company was organised and visited some of the EDP Produção facilities;
- Companhia de Electricidade de Macau (CEM) under the CEM Young Managers Programme, EDP sponsored internships at the company for recent graduates. This partnership helps identify young people with high potential. In 2006, two young people from the energy specialisation area of the Electrical Engineering and IT course of Instituto Superior Técnico, Lisbon, took part.

### e) Social commitment

As part of its sponsorship of health projects, the EDP Foundation<sup>(1)</sup> continued to support the activities of several institutions working in this area.

It allocated EUR 100,000 to the work of the Associação Nariz Vermelho (providing support to hospitalised children).



The EDP Solidária Programme continued. Of the 67 applications received for the 2005 edition, the four selected applications focused on improving quality of life, and the integration of people or communities at risk of social exclusion. They were the Mira-Sintra Disabled Citizen Education Centre – EUR 65,000, the Abelhinhas Association of Viseu – EUR 100,000, the Porto Food Bank – EUR 60,000 and the Ajuda de Mãe Association in Lisbon – EUR 125,000. In 2006, the programme received 92 applications, which are currently being analysed.

In Brazil, impact management continued during 2006, in order to reduce the effects of the construction of the Peixe Angical Power Station. For more details see www.edp.pt-sustentabilidade.

(1) For the organisational chart of the EDP Foundation see www.edp.pt-sustentabilidade.



Also in Brazil, activities concerning the social incentive fund continued to be implemented. These included benefiting 90 children by adapting and modifying the building housing the Aero Rancho Working Mothers' Association and constructing a headquarters for the São Gabriel Anjos do Bem Association, which takes in HIV and AIDS children.

In early 2007, EDP will be launching an online communication channel for NGOs, social solidarity institutions and scientific institutions. It is intended to give a fast, personalised response to questions from these partners. The responses will be published, thereby ensuring transparency of the contacts between the company and stakeholders.

### f) Museum, heritage and culture

After the completion of restoration work in December 2005, the Electricity Museum in Portugal opened to the public on 4 May 2006. It is being managed in accordance to a new concept of museum management. Although it is still a repository of the past, the museum has gradually been turning into a place for becoming acquainted with the present and discussing the future. In 2006, the new museum had more than 100,000 visitors.

From May to September, when the museum only contained its permanent exhibition, there were around 11,000 visitors, 3,700 of whom were from 150 schools, which benefited from the museum's Education Service. The Star Wars Exhibition from 1 November 2006 to 14 January 2007 was visited by around 60,000 people.



The EDP Foundation continued to sponsor cultural heritage and contributed EUR 50,000 to the restoration of sculptures and tiles in Queluz Palace gardens (through the World Monuments Funds of Portugal).

Where sponsorship of cultural development in Portugal was concerned, the EDP Foundation held a number of exhibitions, including Álvaro Lapa: Paisagísticas e Obras com Palavras at the Pavilhão Preto and Pavilhão Branco of Lisbon's City Museum. This exhibition was held following the award to the artist of the EDP Grand Prix 2004. Sponsorship of EUR 10,000 was given for the documentary Álvaro Lapa produced by Artistas Unidos.



The partnership between Portgás from the EDP Group and Sociedade de Reabilitação do Porto was also important, under which the company plans to extend the natural gas distribution network in Porto and contribute to the restoration of the heritage in the city's historical centre.

ENERSUL invested in three main areas, which were the strengthening of the culture of Mato Grosso do Sul, the state's inclusion in a cycle of major theatrical performances and dissemination of local cultural identity.



### g) The environment

The following action had a particularly effective impact.

- In Portugal, the EDP Foundation contributed EUR 150,000 to the Portuguese Youth Institute for the Forest Volunteer Programme;
- It funded 10 awareness campaigns on energy efficiency in buildings at several district capitals to the amount of EUR 62,500 in collaboration with the Society of Engineers and the Society of Architects;

It sponsored the Quercus Ecocasa – Energia Project (for more information, see www.ecocasa.org).

In Spain, the Hidrocantábrico Foundation<sup>(1)</sup> and Asturiana Foundation signed a one-year agreement to promote responsible energy consumption and raise awareness toward different energy sources amongst consumer associations and schools, from primary to university level, and the general public.

The foundation also sponsored conferences, such as the 2nd Environment and Competitiveness Conference, which brought Professor Michael Porter to Portugal.

### h) Safety

A number of courses on the safe use of electricity were given in collaboration with schools to teach youngsters about the risks of electricity and how to use it properly.



(1) For the organisational chart of the Hidrocantábrico Foundation see www.edp.pt-sustentabilidade.

EDP and Escola Nacional de Saúde Pública [National School of Public Health], of Universidade Nova de Lisboa, signed an agreement on a project called Scenarios against Pandemic Flu to help study the problem and draw up a contingency plan for responding to the threat of an epidemic in Portugal.

In Brazil, campaigns were conducted to raise the population's awareness of the risk of electric shocks. Some of the most important initiatives were Oficina e Revoada de Pipas for children and young people from the communities served by Bandeirante as well as the Community Safety Programme for customers in the concessions areas of the other two distributors (ENERSUL and ESCELSA).

#### i) Volunteer work

The EDP Foundation in Portugal joined Junior Achievement Portugal and the Associação Aprender e Empreender in implementing the Economics for Success Programme. In 2006, the programme involved 20 employees, who worked as volunteers at seven schools for 9th grade students. These volunteers were properly integrated and had the right pedagogical and technical support from the institution (see page 60 of this report for further information).

In Brazil, priority was given to corporate volunteer programmes, such as support for children with cancer, donating blood and the Menor Aprendiz Programme fostering the technical and professional qualification of 206 young people aged between 16 and 18 years with a view to their inclusion in the job market. The programme lasts two years.



#### **Commitments for 2007**

Goal	Progress
Implementation of rational energy use agreement between Hidrocantábrico Foundation and the Asturian Foundation	New
Launch of internet channel for NGO's and social solidarity and scientific institutions	New

#### 4.5. Commitment to investors

### a) EDP in the capital market

EDP's shares are quoted at Euronext Lisboa and it is one of the companies that complies most diligently with the recommendations of the Portuguese Securities' Commission (CMVM) on corporate governance. It is also a pioneer in adopting organisational and operational measures designed to promote best practices in this area. In 2006, EDP made 32 privileged announcements and 50 bulletins. There are no ongoing lawsuits in the EDP Group for unfair competition.

In addition to Euronext Lisboa, EDP's shares are also quoted on the New York Stock Exchange (NYSE) in the form of American Depository Shares (ADSs).

At the end of 2006, EDP was the company with the highest relative weight in the PSI 20 index of Euronext Lisboa, representing 20.535% of the index.

EDP's shares are also a benchmark for several European indexes, such as the Dow Jones Eurostoxx Utilities, calculated on the basis of the market performance of the main European utility companies.

As at 31 December 2006, EDP's market appreciation was around EUR 14 billion, which is EUR 4.5 million more than in 2005.

Between 31 December 2005 and 31 December 2006, the EDP's share prices roses by around 48%, from EUR 2.60 to EUR 3.84. For more information, see page 138 of the Institutional Report or go to: www.edp.pt-investidores.

#### **b)** EDP Group's shareholder structure

As at 31 December 2006, EDP's shareholder structure was as follows.



### c) Dividends

EDP's Board of Directors submitted a proposal for the appropriation of the net profit of EUR 508.9 million for 2005 to the General Meeting of Shareholders on 30 March 2006. EUR 365.6 of this amount was set aside for distribution to shareholders in the form of dividends. The General Meeting approved the proposal with 99.99% of the votes and a gross dividend of EUR 0.10 was paid on 28 April 2006.



### EDP's strategic goals

An increase in dividend of at least 11% a year between 2005 and 2010

### d) Communication

EDP has a communication policy based on CMVM recommendations and best practices in corporate governance in order to foster the trust of shareholders, strategic partners, employees, customers, creditors and the general public.

EDP's Investor Relations Office acts as an intermediary between the Executive Board of Directors and investors and financial markets in general. It is responsible for all information provided by the EDP Group in the disclosure of relevant facts and other market communications and in the periodical publication of financial statements. (For more information, see page 148 of the Institutional Report or go to www.edp.pt-investidores).

#### e) Risk management

In the running of its business, the EDP Group abides by the principles of prudent management of the inherent risks. The Executive Board of Directors is assisted in this area by the Corporate Risk Committee and the Risk Management Office, which supervises and reports on overall compliance with risk procedures and limits. Seven types of risk have been identified – investment risk, regulatory risk, environmental risk, energy risk, financial risk, credit risk and operating risk. A risk portal was set up to increase the dissemination and consolidation of a risk management culture throughout the Group. This tool directly informs the companies of the main risks to which the Group and each business unit are prone, their impacts and how they can be managed and controlled in order to reduce their impact to appropriate levels, in line with the approved risk strategies.

Where the minimisation of environmental risk was concerned, a draft environmental responsibility directive was launched. It is being implemented via the risk portal as a tool for inventorying risks under the Environmental Risk Directive, which will be transposed to Portuguese law by 30 April 2007.

For more information about the identified risks, see page 102 of the Institutional Report or visit **www.edp.pt-investidores**.

#### **Commitment for 2007**

Goal	Progress
Identification of environmental responsibility risk in activities of companies in Portugal and cataloguing them in the risk portal	New
Classification and assessment of the EDP Group's environmental responsibility risks in Portugal	New
Definition of plan of action for intolerable risks	New

### 4.6. International initiatives

EDP is not only guided by its own management principles (page 12) but also by international standards of behaviour.

It reports its activities in accordance with the Sarbanes-Oxley Act, which certifies economic and financial information in its Annual Report and Accounts.



Since 2004 it has adopted the Global Compact, an initiative introduced by Koffi Annan when he was Secretary-General of the United Nations. Its activities are based on the universal principles of sustainability and specific codes of conduct. Energias do Brasil, an EDP Group company, adopted the Global Compact in 2006, as a company based in South America.

EDP has also been using Global Reporting Initiative (GRI) guidelines to draw up the Group's sustainability report since 2001. This year it is reporting in accordance with the new G3 guidelines.

In 2004, EDP joined the World Business Council for Sustainable Development (WBCSD). The WBCSD is a leading organisation in the corporate approach to sustainable development issues. It has more than 180 members, which are leading companies in their business areas worldwide and a network of over 50 similar national organisations representing more than 2,000 companies. BCSD Portugal, the Business Council for Sustainable Development, has been a regional member of the WBCSD since it was set up in 2002 and currently has 84 members. EDP is currently the chair.

At the end of 2005, EDP signed the World Safety declaration, as a founder member, thereby joining a global commitment to improving safety in the workplace.

In November 2006, EDP joined Junior Achievement (JA), an organisation that was set up in the USA in 1919 and now operates in 98 countries, including Portugal since September 2005. JA is a non-profit-making association that trains young people in entrepreneurship, civic behaviour, ethics, financial literacy, economics, business and career development.



## 2006 Annual Report and Accounts Sustainability Report The Environment



### 5. The Environment

### 5.1. Climate change

- 5.2. Renewable energies
- 5.3. Energy efficiency a) Supply management b) Demand managemen
- 5.4. Environmental management
  - a) Environmental
  - b) Compliance
  - c) Environmental
  - management system
  - processes
  - f) Sustainability information system

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- e) Environmental accounting
- 5.5. Biodiversit
  - a) Biodiversity polic
  - b) Environmental



### 2006 Annual Report and Accounts Sustainability Report The Environment

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EDP Group's CDM (Clean Development Mechanism) project in Brazil in registration phase

EDP begins carbon sink project in Portugal (Quinta da França) reducing CO<sub>2</sub> emissions by 7,000 tonnes a year up to 2012.

Important events for the environment in 2006 carbon funds, guaranteeing 4. million tonnes o CO<sub>2</sub> in carbon credits (page 89

### Climate change

The Peixe Angical Hydroelectric Power Station, 60% of which is owned by Energias do Brasil, went into operation in September 2006, practically trebling net installed capacity in this segment.

### EDP joins

Agrupamento Eólicas de Portugal, which came first in phase A of the invitation to tender contracts for around 1,200 MW of wind power capacity.

NEO defined a gross installed capacity of around 4,200 MW at wind farms as a goal for 2010.

NEO Energía is the third largest operator on the Iberian Peninsula

Renewable energies In September 2006, year 2 of the teaching programme "The Environment Belongs to All of Us" began, reaching more than 300,000 students this academic year.

Pilot year of "The Environment Belongs to All of Us – let's use energy properly" campaign in 2006 with the participation of 44,000 students and a visible energy saving of 1.4GWh through efficiency

Energy efficiency

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Used transformers from the Sacavém warehouse went into operation.

EDP received environmental and construction licence for the Lares Combined-cycle power station

Mortágua and Energin power stations receive first CO<sub>2</sub> emissions trading certificates in Portugal.

The company's environmental accounting system goes into operation

EDP begins work on the desulphurisation project in Sines and continues work on identical projects at the Aboño and Soto de Ribera power stations

Environmental management

After authorisation from the Nature Conservation Institute (ICN), EDP began a new campaign for removing stork's nests from critical locations for the birds' safety and the maintenance of the electricity distribution service.

Preparatory groundwork for compliance by EDP with the Millennium Ecosystem Assessment

### Biodiversity

## 2006 Annual Report and Accounts Sustainability Report The Environment

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- 5. The Environment
- 5.1. Climate change

### Commitments undertaken in 2006

Goal		Progress
Specification of strategy for participating n CDM/JI (clean development mechanism / joint implementation) projects	*	Completed
Project for reducing CO <sub>2</sub> emissions in vehicle fleet	*	Ongoing
Completed Partially completed	Not comple	ted

The electricity sector plays an important role in the management of greenhouse gas emissions due to its activities. EDP considers combating climate change to be a critical aspect of its business management. It clearly accepted this position in its strategic plan up to 2010, reinforcing its strategy for managing CO<sub>2</sub> exposure and continuing with some existing measures.

With regard to thermoelectric power plants already in the free market (generating around 20% of EDP's energy in Portugal in 2006), EDP's energy management business unit is responsible for operationally managing the Group's CO<sub>2</sub> credits.

EDP's strategy for mitigating this risk includes internal and external emission management measures. The internal measures involve emissions reduction at EDP facilities and new investments in cleaner generation technologies. External measures include projects for reducing emissions and obtaining carbon credits, such as CDM (Clean Development Mechanism) projects and emissions management in areas outside the energy business, such as EDP's vehicles, and in carbon sink projects like the Quinta da França agroforestry scheme. Most of the electricity generated by EDP in Portugal was not placed on the energy market. In 2006, only about 25% (including generation from the Ribatejo Power Plant, mini-hydroelectric plants, wind farms, cogeneration and biomass) was market traded, while the rest was transferred to REN under power purchase agreements (PPAs). These agreements ensure that power generators operating in the market, i.e. almost all thermoelectric plants and the main hydroelectric power stations in Portugal, guarantee an established amount of electricity at a fixed price and for a certain period of time. As a result, the risk associated to the CO<sub>2</sub> emissions allowance market, for power stations under PPAs, is currently managed by REN.

#### EDP Group's general CO2 management strategy







### Quinta da França

EDP is investing around EUR 500,000 in an agroforestry project at Quinta da França with a view to producing a stock of carbon equivalent to 7,000 tonnes of CO<sub>2</sub> a year from 2006 to 2012. This will reduce the national emissions balance by this annual quantity and show the viability of extending this initiative on a national scale.

The idea is basically to introduce new methods of planting and managing cultivated areas in order to certify the carbon fixed and give farmers a monetary incentive for this asset to their activity.

This clearly shows that environmental services can be a competitive product in farming in addition to the normal production of food.

The EDP Group wishes to achieve a more efficient energy mix at its generation facilities and reduce its emissions in the Iberian Peninsula by 38% between 2002 and 2012. As shown in our strategic plan, EDP is committed to expanding energy generation by increasing the number of wind farms and investing in major hydroelectric plants. It will also consolidate its position in the Iberian market by using combined cycle natural gas power stations to expand conventional capacity along with the integrated management of gas supply contracts. EDP accounts for 99.9% of its GHG (greenhouse gas) emissions in accordance with the methods imposed by emissions trading and certified by an outside body (Lloyd's Register Quality Assurance).

# Goal of reducing EDP's specific emissions in the Iberian Market by 2012



The company is currently taking the following action to achieve the strategic goal of generation with lower emissions.

- New undertakings:
- The Picote Power Increase Project, corresponding to an investment of EUR 134 million, expected to come into service in 2011;
- Ongoing study and planning of the Baixo Sabor Hydroelectric Plant, corresponding to an investment of EUR 350 million, expected to come into service in 2013;
- Other hydroelectric projects, such as Power Increase Project for Bemposta and the Foz Tua Plant, corresponding to an investment of EUR 385 million, forecast to come into service in 2011 and 2014, respectively;

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- Completion of the licensing process for the Lares Combined Cycle Power Station, corresponding to an investment of EUR 450 million, expected to come into service in 2009, with the Lares group 2 as an option;
- Development of the pumping plant at Linhares, with an installed generating capacity of 300 MW;
- In Spain, development of processes for the Soto Combined Cycle Power Station (group 4, with groups 5 as an option).
- Research and innovation:
- Participation in Nanomembranes against Global Warming, a comparative study of technological alternatives for capturing CO<sub>2</sub> by using membrane technologies, involving the specification and support of the design of pre-industrial units for installation, trials and demonstration of membranes at thermoelectric power stations and the use of the Sines power station to demonstrate post-combustion CO<sub>2</sub> capture with this technology.

Emission allowances allocated to the EDP Group

EDP recognises that the efficient management of emission allowances is necessary to control the CO<sub>2</sub> emissions risk. In 2005, the EDP Group's power plants in Portugal and Spain were given CO<sub>2</sub> emission allowances of 69MT CO<sub>2</sub> from 2005 to 2007. In 2006, for the first time, Lloyd's Register Quality Assurance audited 2005 emissions. The audits of the first phase of verification of 2006 CO<sub>2</sub> emission control methods were conducted by the same certification entity between September and December 2006. The second phase is scheduled for January and February 2007, and will check the conformity of each facility's greenhouse gas emission reports. The reports must be submitted to the Environment Agency by 31 March.

								tCO2e
	2005	2006	2007	2008	2009	2010	2011	2012
Portugal								
Carregado	1,088,575	1,088,575	1,088,575	853,659	853,659	853,659	853,659	853,659
Setúbal	2,505,210	2,505,210	2,505,210	1,969,512	1,969,512	1,969,512	1,969,512	1,969,512
Sines	7,837,380	7,837,830	7,837,380	6,318,166	6,318,166	6,318,166	6,318,166	6,318,166
Barreiro	253,048	253,048	253,048	244,610	244,610	244,610	244,610	244,610
Tunes	5,000	5,000	5,000	23,957	23,957	23,957	23,957	23,957
Ribatejo	2,019,570	2,019,570	2,019,570	1,591,005	1,591,005	1,591,005	1,591,005	1,591,005
Mortágua	1,510	1,510	1,510	1,218	1,218	1,218	1,218	1,218
Soporgen	239,942	239,942	239,942	239,306	239,306	239,306	239,306	239,30
Energin	199,250	199,250	199,250	225,955	225,955	225,955	225,955	225,95
Spain								
Aboño	5,542,000	4,976,000	4,338,000	n.d.	n.d.	n.d.	n.d.	n.d
Soto de Ribera	3,404,000	3,057,000	2,666,000	n.d.	n.d.	n.d.	n.d.	n.c
Castejon	898,000	692,000	709,000	n.d.	n.d.	n.d.	n.d.	n.c
TOTAL	23,993,485	22,874,485	21,862,485	n.d.	n.d.	n.d.	n.d.	n.c

N.B. The total of emissions allowances allocated to EDP in Spain is still unknown at the time of publication of this report. The values for Portugal published herein may be subject to alteration, given that the European Commission has still not issued its decision on the Portuguese emissions allowance allocation program (PNALE).

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Although 2005 was an extremely dry year, EDP only deems it necessary to resort to the CO<sub>2</sub> market in 2007, in order to cover 3% of its licensing needs for power stations not aligned to PPAs.

### Consumption of CO<sub>2</sub> emission allowances by EDP Group power stations, from 2005 to 2007

			2005			2006			2007	
			2003			2000			2007	
	Regulation	Allocated	Used	% Variation	Allocated	Used	% Variation	Allocated	Used	% Variatio
Portugal										
Carregado	PPA	1,088,575	936,365	-14	1,088,575	188,611	-83	1,088,575	n.a.	n.c
Setúbal	PPA	2,505,210	2,730,062	9	2,505,210	973,507	-61	2,505,210	n.a.	n.c
Sines	PPA	7,837,380	8,596,172	10	7,837,380	8,730,335	11	7,837,380	n.a.	n.e
Barreiro	PPA	253,048	347,958	38	253,048	291,651	15	253,048	n.a.	n.
Tunes	PPA	5,000	17,619	252	5,000	1,224	-76	5,000	n.a.	n.
Ribatejo	Market	2,019,570	1,825,360	-10	2,019,570	2,065,449	2	2,019,570	n.a.	n.
Mortágua	PPA	1,510	1,730	15	1,510	1,726	14	1,510	n.a.	n.
Soporgen	Market	239,942	232,418	-3	239,942	240,139	0	239,942	n.a.	n.
Energin	Market	199,250	193,404	-3	199,250	207,945	4	199,250	n.a.	n.
ipain										
Aboño	Market	5,542,000	7,949,095	43	4,976,000	6,960,496	40	4,338,000	n.a.	n.
Soto de Ribera	Market	3,404,000	4,198,463	23	3,057,000	3,751,871	23	2,666,000	n.a.	n.
Castejon	Market	898,000	770,819	-14	692,000	635,370	-8	709,000	n.a.	n.
OTAL		23,993,485	27,799,465	16	22,874,485	15,129,378	-34	21,862,485	n.a.	n

N.B. Only the 2005 values are available at the time of this report's publication. The values for 2006 will be made available during the first half of 2007, and those for 2007 during the first half of 2008. The listed emission allowances for Ribatejo power station do not include those newly allocated.

EDP also buys emission allowances to reduce its exposure to the carbon risk. It is currently registering at the UN Executive Board 877 kt of emission credits for its own projects in Brazil. To ensure control of the CO<sub>2</sub> emission risk, EDP also invested in EUR 50 million worth of carbon funds, representing a potential 5 Mt of CO<sub>2</sub>.

## EDP Group's CDM projects currently undergoing registration

Project	Туре	Forecast credits (tCO <sub>2</sub> )	Forecast emission
Paraíso	Mini-hydroelectric	155,000	Jan. 07
Mascarenhas	, Mini-hydroelectric	327,000	Jan. 07
São João	Mini-hydroelectric	155,000	Jan. 07
Porto Murtinho	Distribution line	95,000	Jan. 08
Santa Fé	Mini-hydroelectric	145,000	Jan. 09

The whole of EDP's fleet of vehicles has been modernised and its use discouraged through greater use of rail transport and replacement of employees' trips by conference calls.

In 2006, rail transport was used more and air transport used less than in 2005. The number of rail tickets issued increased by 2,599 (up 23%) and 442 fewer air tickets were issued (7% less).

Although EDP has reduced the number of vehicles in service by 4% and increased fuel efficiency by 1%, the total number of kilometres travelled increased, due to the expansion of business, resulting in higher associated carbon dioxide emissions.

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### Use of EDP vehicles in Portugal

Portugal	2006	2005	2004
Total vehicles	2,827	2,945	3,218
Distance travelled (km)	63,311,058	59,780,602	59,631,906
Average fuel consumption (I/100km)	8.56	8.62	8.82
Average use (km/vehicle)	22,395	20,249	18,542

### CO<sub>2</sub> emissions by EDP vehicles in Portugal (ktCO<sub>2</sub>)



Reinforcing its goal of renewing its fleet in Portugal, EDP purchased 294 vehicles from seven suppliers selected in an invitation to tender in 2005. As a result, we expect to reduce CO<sub>2</sub> emissions by 327 tonnes a year.



In addition to other measures regarding the fleet, EDP in Portugal also purchased four hybrid vehicles in 2006 and 15 in early 2007. EDP undertook a project to optimise its fleet management with a view to reducing atmospheric emissions. This includes analysing the fleet's current organisation and finding ways of reducing the number of vehicles. Current initiatives indicate a reduction of about 10% in the fleet of EDP Distribuição by 2008.

### **Commitments for 2007**

Goal	Progress
Project for reducing CO <sub>2</sub> emissions in vehicle fleet	Ongoing
Accounting of GHG Protocol scope 3 emissions	New
Participation in project for demonstrating new technology to collect $CO_2$ at the Sines thermoelectric plant	New

### "Renewable energies will be the main driver of the company's growth between 2007 and 2010"

António Mexia (Chairman of the Executive Board of Directors)

### 5.2. Renewable energies

2006 was notable for the considerable increase recorded in the contribution of renewable energies, reflected by a year-on-year rise of 107% in electricity generation and a 23% increase in total installed capacity of EDP-managed power stations.


### 2006 2005 Total EDP Total EDP РТ SP RR РТ SP RR 1,338 403 747 5,488 4,339 392 245 4,976 tric (> 10 M 33 22 120 66 33 22 120 313 839 29 1,181 151 266 418 13 9 16 4.726 1.278 769 29 6.802 4.565 698 267 5.529

# Total installed capacity in renewable power stations $(MW)^{(1)}$

(1) Only includes the power stations with management control

In addition to NEO Energía, the Group company that manages renewable energies in the special regime generation segment (wind farms, mini-hydroelectric plants and biomass), the Group owns other assets in the Iberian Peninsula through Bioeléctrica (Mortágua facility using forest waste), HC Energía (hydroelectric plants in Spain), EDP Produção (hydroelectric plants in Portugal) and Energias do Brasil (hydroelectric plants in Brazil).

Wind power was the segment that received most attention in terms of development of the project portfolio and acquisition of assets from other companies, resulting in a 763 MW increase in capacity, 183% up on 2005.



# Growth in installed capacity (MW)

In 2006, NEO Energía had 1,181 MW of installed capacity in operating wind farms and 6.4 MW in minihydroelectric and biomass plants in Spain.

In Portugal, five new wind farms went into service and the assets of other operators were incorporated, totalling around 162 MW, raising installed capacity by about 107% compared to 2005.

In Spain, with the acquisition of CEASA and Agrupación Eólica (December 2006), owning a portfolio of around 1,200 MW, and the development of its own portfolio (Genesa and Neo Desa), EDP practically trebled the wind capacity it held in 2005.

In addition to these projects, NEO also has around 2,300 MW in wind farms in different stages of development.

In 2006, NEO began its international expansion plan in France, taking over the operation of three wind farms (a total of 28.5 MW). It also has an additional capacity of more than 200 MW in different stages of development in France. In addition to France, NEO Energía also operates in Belgium and is analysing opportunities in other countries.

The Agrupamento Eólicas de Portugal (Enernova, Enercon, Finerge, Generg Expansão and TP) consortium won phase A of a public invitation to tender for contracts to insert electricity capacity generated by wind farms into the Portuguese grid. EDP owns a 40% share of the consortium. The total investment of EUR 1.73 billion will make it possible:

- To install additional wind power of 1,200 MW in Portugal by 2012;
- To form an industrial cluster in the wind sector, centred on Viana do Castelo, involving the construction of five wind turbine factories (Enercon) to supply the Portuguese and export markets;
- To directly create 1,800 new jobs and help create another 5,500 jobs a year by 2012.



In the hydroelectric sector, the Peixe Angical plant, with a maximum installed capacity of 452 MW, went into operation in phases between June and September 2006. The fourth group at the Mascarenhas plant was completed, adding another 50 MW. With these plants, installed capacity in Brazil practically trebled in relation to 2005.



The EDP group's total electricity generation from renewable energy sources more than doubled in 2006, mainly as a result of a significant improvement in water availability and the consequent increase in hydroelectric generation (which has a very important proportion in the mix of renewable energies – around 81%) and also a 23% increase in total installed capacity.

The hydroelectric energy capability factor in the Iberian Peninsula hit one of its all-time lows in 2005 but was close to average in 2006 in Portugal (0.98) and in Spain (0.83), which led to a substantial 107% increase in hydroelectric generation compared to 2005. "Greenhouse gas emissions resulting from human activity are causing drastic climate change with unforeseeable, potentially catastrophic effects on the balance of the planet. The use of energy is one of the most important causes of this.

The costs of generating electricity from fossil fuels do not yet reflect the impact but this is bound to happen in the near future. Portugal depends on imports in terms of primary energy, much more than the EU average. We have to decarbonise the kWh and find environmentally and economically sustainable alternatives.

By choosing renewable energies as a fundamental aspect of its development, the EDP Group has made an intelligent strategic decision, positioning itself as a leader in the future energy market. It did so in the past with hydroelectric power and is doing it again with wind power. Important technological leaps will bring about changes in paradigms that only a few will be able to keep up with. EDP has the means, the competence and the will to do it. I am sure that it will manage to do it in Portugal, Spain, Brazil and any other place it sets it mind to".

Carlos Pimenta President of CEEETA



# Net generation from renewable sources (GWh)



### Net generation from renewable sources

				MWh
		2006	2005	2004
Portugal	TOTAL	10,802,745	4,933,046	9,543,365
	Wind	482,030	348,155	237,034
	Biomass	57,471	51,389	49,168
	Mini-Hidroelectric	193,457	90,288	140,888
	Hidroelectric (>10MW)	10,069,791	4,443,516	9,116,275
	IPH	0.98	0.42	0.81
Spain TC	DTAL	2,498,015	1,395,507	1,382,283
	Wind	1,644,481	528,696	513,622
	Biomass	5,951	19,634	15,023
	Mini-Hidroelectric	103,936	n.d.	123,451
	Hidroelectric (>10MW)	743 <u>,</u> 647	847,177	730,187
	IPH	0.83	0.45	0.79
Brazil	TOTAL	2,728,177	1,541,071	1,421,741
	Mini-Hidroelectric	98,138	109,177	52,304
	Hidroelectric (>10MW)	2,629,979	1,431,810	1,369,437
<b>F</b>				
France	Wind	18,770		
TOTAL ED	P (MWh)	16,047,648	7,869,624	12,347,389
total ed	(LT) 9	57,772	28,331	44,451

Net generation in the wind sector, which now accounts for 17% of total installed capacity at renewable plants, also grew by a factor of 2.5 compared to 2005.

In addition to the wind, hydroelectric and biomass sectors, NEO Energía also uses new technologies such as:

- Wave energy, via its collaboration with EDP Inovação (the Aquabuoy and BreakWave projects);
- Solar thermoelectric energy;
- Solar photovoltaic energy.

### Commitments undertaken

Target for 2010	Progress
4,200 MW of wind capacity	Ongoing
108 MW of capacity at forest-waste biomass plants	To be implemented



# 5.3. Energy efficiency

### Commitments undertaken in 2006

Goal		Progress
Specification of strategy for participating in CDM/JI (clean development mechanism / joint implementation) projects	*	Completed
Project for reducing CO <sub>2</sub> emissions in vehicle fleet	*	Ongoing
Completed Partially completed	Not compl	eted

Portugal's high energy dependence and the unpredictability of oil prices and impacts of electricity generation underscore the need to foster better energy efficiency in terms of both supply and demand.

### a) Supply management

Where energy supply is concerned, EDP endeavours to improve efficiency in fuel consumption by its power stations.

The consumption of fossil fuels, with the exception of natural gas, decreased by around 64.5% compared to 2005. There was a 16% increase in natural gas consumption and a 67% increase in forest waste consumption.



# Fuel consumption in the EDP Group (TJ)

Note: Other includes biomass, diesel, coke gas and propane gas

This reduction in fossil fuel consumption is due to the fact that 2006 was much wetter than 2005, making greater use of hydroelectric plants possible, and also due to new renewable plants coming into service.

EDP plans to continue to invest in renewable energy sources and in improving the output of existing plants. It is currently developing a total of 4,200 MW of investment in wind power projects up to 2010 and 1,094 MW of hydroelectric projects up to 2013 in Portugal and around 500 MW of projects in Brazil up to 2010. The project for 1,200 MW in natural gas combined cycles in Portugal and Spain is currently under development.

"Energy efficiency is, above all, a question of economics. Increasing energy efficiency means reducing the variable costs of generation and environmental impacts (with a possible increase in capital expenses). Here in Portugal, the artificial way in which energy prices are formed does not favour a demanding culture when it comes to energy efficiency. This makes EDP's recent steps particularly important, both in terms of generation and consumption, with widely beneficial effects on the environment and the country's economy. However, there is still plenty of room for improvement, taking advantage of the unusual diversity and complementarity of energy sources in the EDP universe".

José Delgado Domingos University Lecturer at IST



Generation efficiency at the Mortágua Plant has been increasing, as shown by progress in the last four years.

Electricity generation and specific consumption at Mortágua Power Station



This means that Bioeléctrica, the EDP Group company that generates electricity from biomass and waste, currently has a command of the decisive issues of success for any biomass plant. This success begins with the appropriate preparation of an endogenous, renewable fuel like biomass, nearly 100% of which comes from waste from the woodland surrounding the power station. The quality of biomass depends largely on soil and weather conditions in a particular region, which coincides with a biomass plant's economic impact area. It ends with the technical running of the plant in view of the highly significant changes that always affect the quality of the fuel and change combustion conditions.

### **b)** Demand management

EDP has implemented a number of demand management initiatives aimed at increasing energy efficiency amongst customers. The school project "The Environment Belongs to All of Us – let's use energy properly" was a great success and exceeded the target of 30,000 students, having reached 44,000 and achieved a perceptible saving of 1.4 GWh or 980 tCO<sub>2</sub>. Thanks to its success in 2006, EDP will be extending the project to 300,000 students in 2007.

Under the project, prizes to the amount of EUR 100,000 were awarded to four schools for implementing energy efficiency measures..



In order to improve the perception that its customers have of energy consumption, EDP undertook a number of demand-management initiatives. Its corporate website has an area devoted to energy efficiency, giving advice on the efficient use of energy. It also produced and distributed 570,000 copies of a Consumption Efficiency Guide for the general public and all EDP customers in Portugal (5.8 million) were sent a self-diagnosis quiz on efficient use of electricity.

EDP Comercial, the supply company in Portugal, encourages its customers to consume electricity more efficiently. The following measures were taken:

Energy at installations was characterised in order to study the way it is used and to identify opportunities for improving energy performance. If we know how, where and when electricity is used we can intervene more effectively to optimise its use;

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- Energy consumption management systems were introduced as tools for use in dynamic audits, providing consumers with information on efficient electricity use and identifying opportunities for improvement;
- Power factor correction solutions were installed to eliminate the need to supply reactive energy at industrial, commercial and service facilities;
- Some pilot projects were implemented at service companies, including electronic speed variators and efficient lighting solutions consisting of T5 light bulbs and electronic ballast;
- EDP began a technical and commercial project to install a large (1,600m<sup>2</sup>) thermal solar plant in a service building. The solution will be installed in 2007 to heat water for personal use and for heating and cooling the building using an absorption machine.

The EDP Electricity and Environment Prize was awarded. This prize was introduced to reward distribution grid uses who achieve electricity efficiency gains while respecting environmental values. There were 134 entrants in the Industry and the Services and Other Activities classes. This is 50% up on any one of the last three years. The prize was EUR 36,000.

Other initiatives were completed under the 2005 Demand Management Plan, which was approved by the Energy Service Regulator (ERSE) in Portugal. They included:

- Characterisation of consumers and grids;
- Fostering the use of efficient equipment;
- Studies of habits in the use of appliances in the service sector.

In 2006, EDP prepared its application for the Electricity Efficiency Promotion Plan launched by ERSE in Portugal as part of its Tariff Regulations. The invitation to tender was open to suppliers, grid operators and external agents. EDP submitted a vast set of measures covering all sectors of activity, 12 of which were approved (6 tangible and 6 intangible) to a value of EUR 8.1 million, equivalent to 81% of the funds available for 2007. Most of the projects will be implemented in 2007.

In Brazil, several campaigns encouraged the efficient use of energy were carried out in 2006:

- ENERSUL continued its community energy efficiency projects in Mato Grosso do Sul;
- Several energy efficiency projects are under way in the commerce and services sector – Mato Grosso do Sul Federal University Teaching Hospital, Irmandade da Santa Casa da Misericórdia, in Paranaíba-MS and Campo General Hospital. Public lighting systems were improved in nine municipalities in Mato Grosso do Sul, with 10,530 points of energy efficiency intervention resulting in a reduction in consumption of 3.9 GWh/year;
- \*\* National Electricity Consumption Campaign (Procel) at Schools began in 2006 with the training of 621 teachers from the state education system in 10 municipalities in Mato Grosso do Sul.



### **Commitments for 2007**

Goal	Progress
School project "The Environment Belong to All of Us – let's use energy properly" for 30,000 students	Ongoing – ends in June 2007
Implementation of energy efficiency Top 10 site and Ecofamilias project in partnership with Quercus	New
Start-up of the EnergyBus for advertising energy efficiency	New
Competition for ideas on efficient electricity use for universities with an EUR 100,000 prize	New
Promotion of efficient electricity use to around 500 industrial customers	New
Campaign for correcting the power factor and installing electronic speed variators for the industrial sector	New
Installation of 32,000 electronic ballasts and efficient light bulbs for the service sector	New
Distribution of 300,000 energy-saving light bulbs to the residential sector	New

### 5.4 Environmental management

### a) Environmental impact

EDP conducts periodical environmental assessments of the impact of its business activities. In the management of its business, it gives priority to eliminating or minimising impacts and continually monitoring those considered significant. It conducts environmental impact studies, which include an analysis of social impact, for all its generation facilities and abides by environmental guidelines in the construction, operation and maintenance of its facilities.

The Group's environmental monitoring projects in 2006 were as follows:

	EIA	AIA	Recape	Environment Licence
Sines	Sent	Process began in January 2006	Drafting commenced	Appraisal proces initiated
Lares Alto Tejo Aboño Alange Soto Ribeira IV Castejon G2	Sent Commenced Ongoing Ongoing	DIA issued DIA issued		Environmental licence obtained
Alange Barajas de melo	Ongoing Ongoing			
Desulphurisation Si thermoelectric plan Hydroelectric Development Baixo Sabor Bemposta-		DIA Issued	RECAPE issue	d
Reforço de Potência Picote Foz Tua	Commenced Commenced			
Wind Farm	EIA	Einca	Recape	
Pena Suar Madrinha Serrra da Alvoaça Testos Guerreiros		Submitted Addendum	Approved in . Approved in . Pending app	July
Cabeço Rainha II	Submitted Submitted	sent DIA obtained Addendum submitte	ed	
Negrelo Guilhado Serra de Mu		DIA obtained Public consultation Submitted and conditioned approve obtained	1	
Alto Arganil	Commenced and undergoing alteration	EIA altered to		
Barroso II	andfullori	Commenced		

EIA: Environmental Impact Assessment; AIA: Environmental Impact Evaluation; Recape: Environmental Conformity Report; Einca: Environmental Incidence Study; DIA: Environmental Impact Assessment Resolution.

# CO<sub>2</sub> emissions

2006 was a year of average rainfall (HECF of 0.98 in Portugal and 0.83 in Spain). There was an increase in year-on-year generation of around 7% and an overall reduction in  $CO_2$  emissions of around 13%, as more intensive use was made of hydroelectric power stations and another 763 MW of wind farms came on-line.

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"By some criteria, EDP is the largest Portuguese company and its business, electricity, is one with high value to society. As a company with a vertical tradition, it may have erred here and there over the years, favouring rather arrogant behaviour and a perhaps closed attitude on the part of its generally technically competent employees.

Its opening-up to environmental issues, particularly in the 1990s, resulted in a more holistic approach to the issue of sustainability at the turn of the century. It was no longer just a question of environmental sustainability but also of economic and social sustainability and it adopted truly exemplary concepts, strategies and targets.

EDP's sustainability reports are a clear demonstration of the groundbreaking path that it has followed in Portugal, reaping praise from specialists in showing that the environment is no longer "another" antibusiness goal for EDP but rather an integral part, i.e. a condition, foundation and result of the company's activities.

Let us hope that the progress made in terms of sustainability under an impetus at a convinced and determined, though gentle tempo, will not be lost in the fog of financial results that may unwillingly further dim this light of EDP".

Eduardo Oliveira Fernandes Professor at FEUP Total CO $_{\rm 2}$  emissions by the EDP Group and HECF in Portugal and Spain



An analysis of specific emissions in Portugal, Spain and the whole EDP Group shows that the downward trend in carbon intensity of generation is in line with the 2012 goal for specific emissions of close to 360 gCO<sub>2</sub>/kWh.

# Specific $CO_2$ emissions of thermoelectric facilities in Portugal, Spain and total for whole EDP Group



\* The value of specific emissions for Portugal and Spain refer to thermoelectric facilities; the value indicated for the EDP Group refers to total generation by the EDP Group.



This effort to reduce emissions is clearly evident in the Group's investment plan through to 2010, as some 50% is allocated to renewable sources and the rest to CCGTs, the cleanest fossil technology in the market.

# SF<sub>6</sub> emissions

SF<sub>6</sub> emissions are quantified through the measurement of the re-establishment of gas levels in equipment undergoing maintenance. An increase in SF<sub>6</sub> emissions in Portugal was recorded in 2006, while a decrease of around 8% was recorded in Spain.

# SF<sub>6</sub> emissions of EDP Group in Portugal and Spain (kg)

Project	2006	2005	2004
Portugal			
Electricity generation	8.1	30.0	53.4
Electricity distribution	68.0	40.9	28.4
Total	76.2	70.9	81.7
Spain			
Electricity generation	41.4	4.1	4.1
Electricity distribution	156.0	211.0	210.0
Total	197.4	215.1	214.1

# SO<sub>2</sub> emissions

A wet desulphurisation system is being installed at the Sines, Aboño and Soto de Ribera thermoelectric power stations as part of the programme to reduce atmospheric emissions. The Sines desulphurisation units at Sines are expected to go into operation in groups 1 and 2 in July 2007 and in 2008 in groups 3 and 4. The desulphurisation units at Aboño and Soto de Ribera should be completed in the first and second halves of 2007, respectively.

### Total SO<sub>2</sub> emissions in EDP Group (kt)



# Specific SO<sub>2</sub> emissions at thermoelectric plants in Portugal, Spain and the whole EDP Group (g/kWh)



\* The value of specific emissions for Portugal and Spain refer to thermoelectric facilities; the value indicated for the EDP Group refers to total generation by the EDP Group

### NO<sub>x</sub> emissions

EDP will continue to reinforce primary measures at groups 1 and 2 of the Sines Plant in 2007, in order to reduce the emission of nitrogen oxides (NO<sub>X</sub>). At the Aboño power station, work on installing primary measures in group 2 was completed in May 2006, while the work on group 1 should be completed during the group's maintenance stoppage in 2007. Work at the Soto de Ribera power station began in September 2006 and will be completed in the first half of 2007.





Specific  $NO_x$  emissions at thermoelectric plants in Portugal, Spain and the whole EDP Group (g/kWh)



\* The value of specific emissions for Portugal and Spain refer to thermoelectric facilities; the value indicated for the EDP Group refers to total generation by the EDP Group.

# **Particle emissions**

The electrostatic precipitators in groups 1 and 2 of the Sines Plant will be upgraded in 2007 to improve the reduction of particle emissions. The desulphurisation units at the plant not only reduce SO<sub>2</sub> emissions but also substantially reduce particle emissions.



Total EDP Group particle emissions (kt)



Specific particle emissions at thermoelectric plants in Portugal, Spain and the whole EDP Group (g/kWh)



\* The value of specific emissions for Portugal and Spain refer to thermoelectric facilities; the value indicated for the EDP Group refers to total generation by the EDP Group.

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As required by the National Particle Emission Reduction Plan, EDP renewed its commitment statements for the Barreiro, Setúbal and Carregado power stations so that they are covered by the revocation of 20,000 hours of operations between 1 January 2008 and 31 December 2015.

### Water

Most of the water collected is used for cooling purposes and almost 100% is returned to water sources.

# Change in volume of water collected for cooling $(10^6 m^3)$



# Water collected by source (m<sup>3</sup>)

	2006	2005	Var. %
Portugal			
Sea	1,220,983,200	1,193,122,800	2.3
River/Stream	340,286,919	942,368,150	-63.9
Reservoir	1,539,070	1,764,645	-12.8
Borehole	994,599	1,328,756	-25.1
Well	18,558	22,155	-16.2
Others	1,137,702	1,099,501	3.5
Spain			
Sea	426,867,869	505,842,372	-15.6
River/Stream	59,979,687	60,535,709	-0.9

# Water consumption (m<sup>3</sup>)

	2006	2005	Var. %
Portugal			
Drinking water*	216,849	204,721	5.9
Raw water	3,461,468	4,785,965	-27.7
Cooling water	1,561,210,155	2,134,926,591	-26.9
Spain			
Drinking water	5,647	648,186	-99.1
Raw water	955,780	n.d.	
Cooling water	485,884,398	566,027,617	-14.2

\* at administrative services

Reducing total water consumption is one of the EDP Group's overall goals and has been included in the thermoelectric plants' environmental programmes. At the Sines Plant, the slag removal system installed in the ash deposits of two groups reduced water consumption by 14%, which represented a saving of 210,000 m<sup>3</sup> in 2006. The Seis Sigma Project to reduce total water consumption at the Aboño Plant resulted in a saving of EUR 95,000 and a reduction of 251,020 m3, equivalent to the annual consumption of a population of more than 4,200.

The EDP Group's thermal power plants have effluent treatment stations to ensure the quality of water returned to water sources. A total of 8,029,487 m<sup>3</sup> of effluent was treated in the EDP Group and returned to water sources.

# Waste

The EDP Group exceeds the strict legal requirements in this area and implements best practices in the management and monitoring of waste produced. It promotes the use of recyclable products and materials, the recovery of waste produced and any necessary awareness campaigns regarding waste management for employees and service providers.



# Main categories of waste routed through to end disposal in Portugal (t)

	2006	2005	Disposal
Waste - Sub-product			
Coal fly ash recovered	351,377	354,393	Recovered in cement industry
Hazardous industrial waste			
Fly ash and fuel oil slag	602	1,088	Inertisation and subsequent use
Used oil	534	411	to stabilise phosphogypsum deposit Energy recovery
Equipment with PCB removed	27	18	Incinerated at special facility
Light bulbs	21	21	Recycled at special facility
Non-hazardous industrial waste			
Concrete posts	47,165	46,572	Recovered in metallurgic industry
Unrecovered coal fly ash	3,194	4,806	and reused in construction Deposited at Sines Power Station ash facility
Coal slag	28,922	38,904	Deposited at Sines Power Station ash facility
Biomass ash	14,507	3,071	Recovered as agricultural and forestry
Metal waste	4,123	4,164	fertiliser and organic fertiliser production Recycled

# Main categories of waste routed through to end disposal in Spain (t)

		7	
	2006	2005	Disposal
Hazardous industrial waste			
Used oil	37	55	Energy recovery in HC coal power stations
Equipment with PCB eliminated	0	55	Incinerated at special facility
Light bulbs	9	2	Recycled at special facility
Non-hazardous industrial waste			
Recovered fly ash and coal slag*	521,830	388,492	Recovered in cement industry
Unrecovered coal fly ash	60,980	119,559	Temporary deposit
Unrecovered coal slag	75,060	122,405	Temporary deposit

(\*) In Spain, recovered fly ash and coal slag are classified as waste and in Portugal as sub-products.



### Main categories of waste routed through to end disposal in Brazil (t)

	2006	2005	Disposal
Hazardous industrial waste			
Used oil	189	62	Regenerated
Eliminated PCB	0.1	53	Incinerated at special facility
Light bulbs	21	21	Recycled at special facility
Non-hazardous industrial waste			
Concrete posts	2,647	29	Recovered in metallurgic industry and reused in construction
Metal Waste			
	1,030	1,364	Reused or recycled

# **Good practices**

EDP unequivocally embraces sustainability in all its areas of intervention and reused the material used in its advertising campaigns, converting waste into new gifts to be distributed at conferences, seminars, etc.

For example, 852 m<sup>2</sup> of canvases were used to make 150 recycling bins and 150 m<sup>2</sup> to produce A4 folders. Around 1,000 posters were used to make covers for EDP files and 1,600 m<sup>2</sup> of fabric were made into sports bags.

# Biodiversity

In 2006, the Portuguese distribution company had 12.7% of its overhead lines and 4.4% of its underground cables in protected nature conservation areas, such as the Natura 2000 Network and National Agricultural Reserves. Around 5% of its substations were also in nature conservation areas.









# Distribution grid in protected areas <sup>(1)</sup>, Portugal

		2006	2005	<b>2004</b> <sup>(2)</sup>	Var. 06/05 %
Distribution grid (km)					
HV	Overhead	827.0	792.5	779.8	4
	Underground	3.9	3.6	3.5	8
MV	Overhead (1)	7 289.2	7 184.7	8 706.3	١
	Underground	624.2	574.1	463.1	9
Nr. of substations		21	23	n.d.	-9
Generation					
Construction in protecte	ed areas (ha)	698	630	n.d.	1

(1) Includes areas protected under Nature Conservation regulations

(2) The figures reported in 2004 for the overhead MV grid are the result of less accurate georeferencing information and so they cannot be compared to those for 2005

In order to preserve avifauna, EDP Distribuição installed 1,966 bird savers, transferred 13 stork's nests and mounted 24 nesting platforms and 382 anti-perching and anti-nesting devices.

After receiving permission from the Nature Conservation Institute (ICN), it removed 112 white stork nests, thereby helping to preserve the species. Another 77 nests still have to be removed.



# White stork – Ciconia ciconia

The white stork (Ciconia ciconia) is a species belonging to the Ciconiidae family. It is one of the two Ciconia genus species that nest in Portugal. It is migratory and dispersed.

The white stork is a protected species in Portugal, under Decree-Law 140/99 of 24 April (amended by Decree-Law 49/2005 of 24 February), Annex A-I (Bird species of Community interest, the conservation of which requires designation of special protection areas). It nests mainly in the centre and south of the country, where we find the greatest density of nesting pairs. In the north, they are confined to inland areas and also the Lower Mondego River, Aveiro Estuary and surrounding areas.

The white stork population in Portugal has increased significantly from 3,289 pairs in 1994 to 7,628 in 2004.



EDP in Portugal in wind farms alone has 698 hectares built in protected nature conservation areas, such as the Natura 2000 Network and the National Ecology Reserves.

The graph below shows ongoing monitoring at wind farms in Portugal.

# No. of ongoing monitoring processes at wind farms in Portugal (2006)



In Spain, the EDP Group has 354,000 hectares of electricity infrastructure in protected areas.

# Flooded zones in protected areas (ha)

Spain	Area (ha)	% of natural park
Parque Natural Somiedo		
La Malva	58.7	0.2
La Riera	0.6	0.0
Parque Natural de Redes		
Tanes	201.0	0.5
Total	260.3	

# Infrastructure of electricty distribution in protected areas (ha) (2006)

Spain	Area (ha)
HV	109,276
MV	109,276 244,465

In 2006, the, the Spanish distribution company had 11.7% of its overhead lines and 16% of its substations in protected nature conservation areas. It installed 44 bird-savers during the year.

In Brazil, 3% of lines and around 9% of substations are in protected areas.

### **b)** Compliance

There were no incidents or environmental violations in generation activity in Portugal in 2006. The courts acquitted the company on appeal against three charges brought in 2003 and one in 2004.

In distribution in Portugal, 164 environmental complaints were lodged, 155 of which were settled with an average response time of 11 days. There were four environmental law infringements, two of which were for not obtaining the approval of the ICN or the Regional Coordination and Development Commission for installing electricity infrastructures and the other two for not abiding by species conservation goals. There are 12 infringements from previous years still awaiting an administrative decision.



Environmental penalties incurred in 2006 and previous years by the distribution business in Portugal

	Cases	Minimum €	Maximum
rocesses initiated in 2006			
Infringement of Decree Law no. 46/94- Constructing a support tower			
on land allocated for water use	2	498.80	9,975.9
Infringement of Decree Law no. 140/99- Removal of stork's nest	1	3,990.38	39,903.8
Infringement of Decree Law no. 140/99- Destruction of stork's nest	1	3,990.38	39,903.8
Total	4	8,479.56	89,783.6
ending processes 2006			
Infringement of Decree Law no. 46/94- Constructing a support tower			
on land allocated for water use	5	1,247.00	24,939.9
Infringement of Decree Law no. 140/99- Removal of stork's nest	1	3,990.38	39,903.8
Infringement of Decree Law no. 140/99- Destruction of stork's nest	1	3,990.38	39,903.8
Infringement of Decree Law no. 46/94- Felling trees on land allocated for water use	1	249.40	4,987.9
Infringement of Decree Law no. 357/87- Parking a vehicle in a protected area	1	249.40	4,987.9
Infringement of Decree Law no. 140/99- Destruction of stork's nest	2	7,980.76	79,807.6
Infringement of Decree Law no. 140/99- Installing a line in a protected area	1	3,990.38	39,903.8
Total	12	21,697.70	234,435.0

In 2006, the generation company in Spain was charged with infringing environmental law at its hydroelectric plant at La Riera, due to spillage into the River Somiedo. It may have to pay a fine of EUR 300,000. The case continues.

The distribution company in Spain was charged with an environmental infringement due to the construction of a line support tower in an area subject to easement near the River Teverga. After the company appealed, the offence was downgraded from serious and it has to pay a fine of EUR 240. There also exist four environmental complaints caused by noise and impacts on biodiversity.

In Brazil, Bandeirante was charged with 34 environmental infringements:

33 were for cutting vegetation, though it was acquitted in 32 of them and the other is awaiting a final decision;

\* one was for action at a protected site and a final court decision is pending.

Enerpeixe was charged with an alleged violation of the Basic Environmental Law at the Peixe Angical hydroelectric plant. Enersul was involved in two administrative court actions and one lawsuit all due to clearing of vegetation. Their final court decision is pending.

### c) Environmental management systems

For EDP, the environment has always been a management goal. EDP's environmental policy and sustainability principles have been published and are available on www.edp.pt-sustentabilidade. EDP obtained its first ISO 14001 environmental certification in 1999 for the environmental management system set up at the Setúbal thermoelectric power station. EDP's environmental management systems have been progressively certified and by 2006 almost all its electricity generation facilities in Portugal were certified (around 95% of electricity plants are certified). On a broader scale, the next challenge is to achieve the same level of certification of environmental performance for all the EDP Group's activities by implementing a corporate environmental management system.



In Spain, the Castejón plant's environmental management system received UNE-EN ISO 14001:2004 certification. The certificate covers thermal electricity generation at CCGT plants, which includes the work on the new Castejón II cycle.

In order to make the management of the Group's resources and synergies more effective, EDP set a goal for 2006 of integrating its environmental management system (EMS ISO 14001:2004) and safety and accident prevention system (OHSAS 18001:1999) in a single management system, an integrated environmental and safety management system (IESMS) at all thermoelectric power plants in Portugal. The first facility to implement the IESMS was the Carregado power station. Its continued environmental and safety certification was reconfirmed by Lloyd's Register Quality Assurance in external monitoring audits carried out in June.

In Portugal, Portgás's environmental management system was certified under the EN ISO 14001:2004 standard in December 2006.

The overall environmental goals for the EDP Group's power stations are:

- Preparing the power plants to respond to new legal requirements;
- Preventing and mitigating the risks of environmental impacts and consolidating emergency response plans;
- # Guaranteeing ongoing improvement of environmental management;
- Setting concrete targets for reducing emissions, water and materials consumption and waste generation;
- Improving communication channels between power stations, their employees and the community;
- Supporting R&D projects at power stations;
- Ensuring that employees receive environmental training;
- Guaranteeing a minimum of 90% reliability for air, emissions and water monitoring equipment.

### Commitments undertaken in 2006

Progress	Pro		Goal
al of 189 white stork's nests Ongoing			Removal of 189 white stork's nests
Imental certification Ribatejo thermoelectric plant Obtained in July 2006	Obtained in .	*	nvironmental certification of the Ribatejo thermoelectric plant
ifety management system at all	obtained for enviro manag hydroelectric pr	*	mplementation of integrated environment and safety management system at all hermoelectric plants in Portugal
nentation of integrated quality, ment and safety system Ongoing			mplementation of integrated quality, environment and safety system at Labelec
gement systems at hydroelectric 🛛 🛛 💦 🔹 management of hydroelectric	obtained for enviro management of hyd production. Certificat	*	Certification of environmental nanagement systems at hydroelectric slants in Portugal
	Ca	*	Publication of environmental policy at Energias do Brasil
nment and safety management n at all thermoelectric plants consolidate some of the system's documentation,	consolidate sor system's docum		mplementation of integrated environment and safety management system at all thermoelectric plants except Tunes
	Ca	*	Verge of environmental management systems at Barreiro and Setúbal plants
			Purchase of equipment to recover and control SFs in distribution in Portugal
uction of facility for used Completed	Ca	*	Construction of facility for used ransformers at Sacavém warehouse
gement system in distribution Ongoing			mplementation of environmental nanagement system in distribution n Portugal

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### d) Organisation of processes

In 2006, the Iberian LEAN operational optimisation programme (bottom-up) began at electricity generation plants. Its aim is to eliminate all forms of waste and involve all employees in identifying them and finding solutions. The programme is managed centrally by the LEAN Office. Special teams with members from all levels of the organisation manage the identification of waste and development of solutions. After the success in Sines and the highly positive results of its first extension to the Setúbal and Soto power stations, the LEAN programme will be extended to the Carregado and Ribatejo power stations in early 2007.

The expected benefits are as follows:

- Better efficiency and quality in operations, maintenance and other areas;
- # Higher employee motivation, involvement and ownership, stimulating change and ongoing improvement;
- Direct collection of ideas for structured, well-founded improvement from all levels of the organisation;
- Guaranteed development for generating centres and central areas of EDP Produção and HC Energía;
- Capitalising on knowledge and experience in other areas.

The challenges of the programme are:

- Extending the programme to all energy generation and ensuring that its remains appropriate and efficient;
- Ensuring appropriate management of all initiatives;
- Fostering continuous improvement and identifying and taking advantage of opportunities for improvement;
- Introducing structuring routines and keeping up the pace and consistency in publicising the programme.

The following are the main LEAN initiatives:

- Reductions in fuel consumption on start-up of generating groups;
- Reuse of water and steam leaks;
- Reduction in service of auxiliaries;
- Reduction in own consumption of electricity.

# e) Sustainability information system

In 2006, EDP launched its sustainability information system project. This is a computer program that provides corporate niched sustainability information, in order to monitor performance in this area and report regularly to internal and external stakeholders. In 2006, EDP's sustainability indicators were identified and characterised and specifications were drawn up for market consultation in late January 2007.

### f) Environmental accounting

In 2006, internal action was taken to implement EDP Group's environmental accounting system for all companies in Portugal, except EDP Distribuição, to come into effect in 2007. EDP Distribuição was excluded due to the specific nature of the programme for recording the company's financial information on environmental investments.

This means that, in 2006, the environmental accounting system was used to automatically calculate environmental financial information for most companies in Portugal.

In 2006, the EDP Group disbursed EUR 163 million on environmental protection, 116% more than in 2005. Around EUR 150 million represented environmental costs reported under assets in the financial year and the rest was for environmental costs reported in profits and losses for the year.

The table below breaks down environmental costs into areas.



# Environmental expenditure by area by EDP ( $10^3 \in$ )

Environmental costs capitalised in financial year	2006	2005	var(%)
Air and climate protection	117,212	35,278	232.3
Wastewater management	308	139	122.5
Waste management	2,177	4,020	-45.8
Soil, surface water and groundwater protection and recovery	1,676	3,512	-52.3
Reduction of noise and vibration	16	779	-97.9
Biodiversity and landscape protection	16,308	12,220	33.4
Electromagnetic radiation management	0	70	
Reasearch and development in the environmental field	0	233	
Other environment management and protection activities	12,747	10,138	25.7
Subtotal	150,444	66,388	126.6
Environmental costs reported as profit and loss for financial year	2006	2005	var(%
		1.070	
Air and climate protection	1,157	1,279	-9.
Wastewater management	761	1,586	-52.0
Waste management	2,702	2,889	-6.
Soil, surface water and groundwater protection and recovery	1,358	395	243.
Reduction of noise and vibration	1,055	216	388.8
Biodiversity and landscape protection	527	325	
Electromagnetic radiation management	40	0	
Reasearch and development in the environment field	10	0	
Other environment management and protection activities	5,418	2,567	
Subtotal	13,027	9,257	40.
Total	163,471	75,645	116.

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There was a reduction in environmental earnings as a result of coal fly ash. This product was used by the cement, concrete and construction industries.

# Change in recovered coal fly ash (10<sup>3</sup>t)



# **Commitments for 2007**

Goal F	rogress

Continues in 2007	Implementation of corporate environmental management system
Continues in 2007	Implementation of sustainability information system
Completion in 2007	Introduction of two environmental legislation databases in the EDP Group
New	Plan for construction of facility for used transformers at Ameal and Lousā
Begins in 2007, ends in 2008	Certification of quality, environment and safety management system at EDP Valor
Begins in 2006, ends in 2007	Implementation of environmental accounting system at EDP Distribuição
Continues in 2007	Removal of 189 white stork's nests

### 5.5. Biodiversity

### a) Biodiversity policy

The United Nations Millennium Ecosystem Assessment conducted by 1,360 scientists from all over the world in 2005 underscored the extent of the damage to ecosystems and warned of the urgent need for national governments to strive for a balance between economic growth and the conservation of nature.

As a result, the European Union's has set a goal of halting the loss of biodiversity as of 2010. EDP is preparing to establish and define a biodiversity policy in 2007 and include it in its corporate environmental system.

This policy was prepared in 2006 and will be published in early 2007. Under the policy, EDP manages its investment projects, creating a positive balance in its interaction with biodiversity.

At the national level, the EDP Group plans to establish:

- A national biological research partnership to conduct environmental studies in anticipation of investment decisions and the definition of action to lessen the environmental risk of future investment projects;
- Collaboration and dialogue with stakeholders, i.e. scientists, nature conservation organisations and society in general to contribute to raising national awareness toward biodiversity issues.

At the regional and local scale, during the environmental impact assessment definition phase, EDP will help set up dialogue structures to find out about social and environmental contingencies and agree on ways of minimising impacts.



The company will create internal biological science competences to advise decision-makers in managing the relationship between business and impacts on biodiversity and assist in dialogue with communities. It also wishes to create an EDP biodiversity investment fund to sponsor business management in balance with the conservation of nature and create a permanent advisory service in which outside entities of recognised competence will participate.

# **b)** Environmental responsibility

In 2006, the EDP Group companies in Portugal began identifying and characterising the risks of environmental responsibility under Directive 2004/35/EC, which is expected to be transposed to Portuguese law by April 2007. The aim is to classify risks, define a method for assessing them and develop an action plan for intolerable risks. For further information, see page 59 of this report.

Minimising the environmental impact resulting from the generation and distribution of energy involves preventive and legal measures.

Pursuing its policy of preventing soil contamination in Portugal, EDP built a retention basin under the turbine areas and the turbo water pump at the Barreiro and Setúbal power stations.

In wind generation, the Office of the Secretary of State for the Environment approved the Serra do Mú wind farm and the construction of a wind farm in Testos, in a national ecology reserve.

- # Habitat management programme for Bonelli's eagle at Madrinha wind farm, currently in the postassessment process;
- Monitoring habitat recovery and landscaping action at wind farms completed in 2005.

There were 37 ICN approvals for the construction of distribution infrastructures in Portugal in 2006. For example, it approved the remodelling of the Aljustrel-Loulé line, subject to some minimising measures, such as a reduction in the number of collision planes, installation of anti-nesting and anti-perching structures and the erection of white and orange signs on the conductors every five metres. As part of its voluntary initiatives, EDP Distribuição signed a new agreement with the ICN, Quercus and Portuguese Bird Society (SPEA) in May 2006 to study and minimise the impact of high- and medium-voltage power lines on birdlife. The agreement will last until the end of 2008 and follows on from the monitoring of the impact of power lines on birds begun in 2003, with particular focus on nature conservation areas. 900 km of high- and medium-voltage lines were examined as a direct result. For the final report on the previous agreement between EDP, the ICN, SPEA and Quercus, see www.spea.pt.

As part of this work, the company has worked towards standardising procedures. It is currently drawing up a handbook: "Execution and erection rules - the protection of birdlife; minimising the risk of electrocution of small birds on overhead MV lines". It also updated its technical documents on electrical installations and bird protection devices and revised its guide on discouraging nesting and perching by storks on high- and medium-voltage pylons. These documents are available at www.edp.pt-parceiros.

In Spain, the construction of group 2 of the CCGT at Castejón and Soto de Ribera (Soto IV) was subject in 2006 to environmental impact assessments resulting in an environmental monitoring plan for the building phase.



"The generation of electricity has environmental impacts at different levels, depending on the way it is generated. In the framework of sustainable development, these impacts must be assessed as comprehensively as possible in terms of space and time, i.e. from the point of view of a life cycle.

The damage to biodiversity can be considerable, particularly if we take into account electricity generation at large hydroelectric plants (dams) and the destruction of ecosystems of high ecological importance, air pollution from thermoelectric plants causing acidification, eutrophication, and the production of tropospheric ozone and the construction of wind turbines in environmentally sensitive areas, although these are of lesser importance.

The discussion of corporate activity and biodiversity at the national and European level is a fundamental element that will top the environmental agenda of companies in the energy sector.

The efforts that have been made in promoting carbon sinks in forest and pasture management must be associated with the promotion of biodiversity in these areas and support for initiatives to preserve areas of the countryside deemed to be of considerable natural value all come within the scope of corporate environmental responsibility. This is the path that we must follow and include in a broader strategy over the next few years".

Francisco Ferreira Director of Quercus The distribution companies in Brazil use operating procedures to guarantee a balance between their infrastructure and local flora and fauna. Examples are changes in the grid layouts, tree pruning criteria, and higher metal structures to preserve vegetation and/or replace conventional grids with protected, insulated grids to reduce the risk to wildlife.

During the construction of the North-Northeast transmission line in the Tietê Natural Park in Guarulhos, Bandeirante planted 25,000 new native trees, donated equipment to the Wildlife Rescue Centre and built fences to protect the animals that live in the park.

During the construction of the Northeast-Dutra line, the company will be planting 5.2 hectares of native vegetation in compensation, favouring the recovery of areas that are debilitated in nature conservation terms.

# Commitments for 2007

Goal	Progress
Specification of biodiversity policy	New
Setting up of botanical micro-reserves	
in Douro Internacional Natural Park	New
Participation in Parks with Life initiative for sustainable management of protected nature areas	New
Replacement of equipment using R22 CFC gas at EDP Produção	Completion expected in 2007
Environmental incidence assessment for Alto Arganil wind farm	New
Environmental incidence assessment for Guerreiros wind farm	Completion expected in 2007







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September: The General and Supervisory Board approves EDP's strategic plan through to 2010, as submitted by the Executive Board of

EDP announces the sale of its shareholding in

December: EDP signs contracts to sell 15% of the share capital held in REN – Redes Energéticas Nacionais, S.A. to Cestmin, SGPS, S.A. in three blocks of 5%

Energias do Brasil's shares enter the Corporate Sustainability Index of the São Paulo Stock Exchange in December and are also included in the Electricity Index and Bovessa Index Index and Bovespa Index (VBX-2) in May

# year

in the Forbes 2000 list of largest companies quoted on the world stock exchange. It is the top-ranking Portuguese

magazine's 500 bigge and best of Brazil in

EDP receives the Roland Berger Strategy Consultants' pan-European prize in the Cross-Border M&A category

awarded the IBCG prize for corporate governance by the Brazilian Corporate Governance Institute

Energias do Brasil wins the Abornec Award for Best Listed Company in 2005 and it receives an honourable mention in the IR Magazine. the IR Magazine Awards 2006

best listed company in 2006 on receiving the Stock Awards 2006

# Corporate reputation

EDP is given the Companies and Organisations' Civic Performance Award for having the best civic policies and practices naving the best cavic policies and practices and concern for the environment, by the AESE School of Management and Business and PriceWaterhouse-

class by Storebrand Investment SRI

EDP selected by Standard&Poor's as one of the top 100 companies in terms of sustainable behaviour

distributor in Brazil receives the top of environmental quality award from the Parliamentary Society in

# Research, development and innovation

New EDP website goes on line with new contents

Public presentation of the edp5D service -energy adjusted to you

Sustainability area opens at EDP head

Evening concerts in the sustainability area

# strategy

Important

events 2006



### 6. The economy

### 6.1. Summary of the year

### a) Divestiture and focus on the energy business

The Executive Board of Directors presented EDP's new strategic orientation in London on 19 July. It includes the consolidation of its position as world leader in the generation of renewable energies and as an Iberian market operator, increasing operations in Brazil and the divestiture of non-strategic assets.

One of the company's goals is to establish its leadership in the renewable energy sector. In October, it was announced that the Agrupamento Eólicas de Portugal consortium, in which EDP has a 40% stake, had won the phase A contract of the wind power tender and had been allocated 1,200 MW of wind capacity for installation. At the end of 2006, EDP announced the acquisition of the companies CEASA, CEASA Promociones and Agrupación Eólica, with assets in France and Spain.

In the gas sector, EDP acquired total control of Bilbogas and Gasnalsa, with the strategic goal of consolidating Naturgas as an integrated energy operator and the leader of the gas sector in the Basque country. In Portugal, EDP increased its shareholding in Portgás from 59.6% to 72% and in Setgás from 10.1% to 19.8%.

As part of its plans for the company in 2006, EDP disposed of some of its non-strategic assets, selling Telecable to Cajastur for EUR 54 million, selling ONI to Win Reason, S.A. for EUR 160 million, selling 7.55% of Sonaecom by private placement and selling 15% of REN to Gestmin, SGPS, S.A., Logoenergia, SGPS, S.A. and Oliren, SGPS, S.A..

### **EDP** group

### Strategic goals

Coverage of CO<sub>2</sub> emissions by free allowances Disinvestment in non-strategic assets Leadership of renewable energy production in Iberian and other markets Increase of installed electricity generation capacity in Brazil and reinforcement of positioning in distribution

Consolidation of position in the Iberian gas business

5

Management of regulatory agenda (Portugal, Spain and Brazil)



# EDP Group's operating indicators

	2006	2005	2004	Var. % 06-0
	2000	2005	2004	00-03
Electricity in Portugal				
Maximum power (MW)	9,083	8,921	8,402	1.8
Net electricity generation (GWh)	28,573	25,237	25,368	13.
Outgoing electricity from distribution grid	45,414	43,784	41,315	3.
Electricity sales - Regulated market (GWh)	38,253	34,164	34,552	12.
Electricity sales - Supply (GWh)	4,037	6,314	4,381	-36
Number of customers	5,987,896	5,907,365	5,823,342	1.
Gas in Portugal				
Gas sales - Distribution (GWh)	2,293	2,158	1,839	6.
Number of customers	163,391	149,196	139,328	9.
Electricity in Spain <sup>(1)</sup>				
Maximum power (MW)	3,387	2,785	2,774	21
Net electricity generation (GWh)	14,496	15,520	13,966	-6
Outgoing electricity from distribution grid	9,551	9,247	9,023	3
Electricity sales - Regulated market (GWh)	8,184	7,739	7,636	5
Electricity sales - Supply (GWh)	8,313	5,926	4,647	40
Number of customers	603,181	584,922	570,941	3
Gas in Spain				
Gas sales - Distribution (GWh)	19,713	21,547	22,059	-8.
Number of customers	641,336	599,904	577,802	6.
Electricity in Brazil <sup>(2)</sup>				
Maximum power (MW)	769	267	297	187
Electricity Sales - Generation (GWh)	2,728	1,541	1,407	77.
Outgoing electricity from distribution grid	23,948	23,061	22,396	3
Electricity sales - Regulated market (GWh)	15,618	16,576	17,291	-5
Electricity sales - Supply (GWh)	6,702	6,379	4,849	
Number of customers	3,113,604	2,972,458	2,895,600	4
Electricity in France				
Maximum power (MW)	29	n.a.	n.a.	n.
Net electricity generation (GWh)	19	n.a.	n.a.	n.e

Does not include Trillo power station
Does not include Lajeado power station

Turnover by business area



# **b)** Financial reporting

In 2006, the EDP Group's turnover was EUR 10.35 billion, which is 7% up on 2005. This figure represents around 7% of GDP at market prices (GDP mp). The graph below shows turnover by business area and geographical region.



The EDP Group's operating investment was EUR 1.457 billion in 2006, which is a year-on-year increase of 2.1% and around 1% of the GDP mp. It reflects the channelling of investment towards expanding installed capacity, with special focus on wind power, the new Castejón CCGT in Spain, the Peixe Angical hydroelectric plant in Brazil and reinforcing EDP's position in the gas market in Portugal and Spain.

# EDP Group's economic performance (EUR thousand)

	2006	2005	Var. %
Turnover	10,349,826	9,648,167	7.3
Gross operating results	2,305,450	2,050,167	12.5
Operating results	1,253,036	1,141,880	9.7
Net profit	940,823	1,071,102	-12.2
Net operating investment	1,456,537	1,427,154	2.1
Financial investment	-96,940	775,682	-112.5
Net assets	25,468,911	24,035,570	6.0
Equity	5,589,235	4,823,400	15.9
Financial liabilities	10,153,050	10,584,300	-4.1
Market appreciation	14,041,105	9,506,998	47.7
Profit per share (EUR)	0.26	0.29	-11.9
"Dividend yield"	2.9%	3.8%	-1.0 p.

The EDP Group's net profit was EUR 941 million in 2005, compared to EUR 1.0711 billion in 2005.

EDP's gross operating results were EUR 2.305 billion, which reflects an improvement in operating performance by the Group's main business units, with particularly strong growth in installed wind capacity.

In 2006, results mean annual growth of 9.7% was recorded for operating results and return on invested capital (ROIC) was 6.5%, which was 0.4 percentage points higher than the weighted average cost of capital (WACC).

### 6.2. Corporate reputation

The EDP Group's practices have been recognised by our stakeholders. The following were particularly important:

- In April, Forbes magazine ranked EDP in 435th in the Global 2,000, four places higher than in 2005;
- Forbes' Global 2,000 list is based on analyses of companies' sales, profits, asset value and market value. One third of those mentioned are American. There are seven Portuguese companies on the list, with EDP ranking first, followed by BCP, Portugal Telecom, Sonae SGPS, BPI, Brisa and Cimpor;
- In May, EDP won the Companies' and Organisations Civic Performance Prize in the company category. It won two of the three prizes available in the category, that for the most successful company in applying its social responsibility policies to its economic, social and environmental facets and an individual prize in the environmental subcategory, for environmental practices, policies and performance. The Companies and Organisations' Civic Performance Prize is awarded by the AESE School of Management and Business and PriceWaterhouseCoopers. Fifty-five companies and 20 NGOs competed in this first edition;
- In July, Brazilian capital market analysts voted Energias do Brasil the best listed company in 2005. The choice was made by the 350 members of the Brazilian Association of Capital Market Analysts;
- In August, EDP Energias do Brasil was classified among the 1,000 largest companies in terms of revenue in 2005 by the annual of the Brazilian newspaper Valor Económico. Bandeirante Energia, Escelsa and Enersul were classified in 110th (115th in 2004), 188th (222nd in 2004) and 268th (315th in 2004), respectively;

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- In September, Energias do Brasil received the prize for the Best Listed Company in 2005 from the Brazilian Capital Market Association;
- In October, Bandeirante received one of the best scores in research by DCI – Diário Comércio, Indústria & Serviços, which assessed the performance of electricity distribution companies in Brazil. It conducted a survey of 400 entrepreneurs and directors;
- In October, EDP was one of the companies decorated in the second edition of Best of European Business. These pan-European awards were organised by Roland Berger Strategy Consultants in partnership with Jornal de Negócios;
- In November, EDP received awards at the Investor Relations Award 2006, in the categories of Best Annual Report and Accounts in the Non-Financial Sector and Best Information on Corporate Governance;
- In December, EDP won the 2005 Stock Awards prize, which is awarded by Jornal de Negócios newspaper and Brisa to the best companies quoted on Euronext Lisbon. EDP was considered the best listed company. Fifty-eight companies were evaluated. The indicators analysed were earnings per share, business performance, profits and market liquidity;
- In December, EDP was considered Best in Class in the social and environmental fields by Storebrand Investments SRI, a Scandinavian institution that provides financial services. Storebrand analysed 44 electricity companies in different countries and the 13 companies that received the prize included Iberdrola, Endesa, ENEL, E.ON and Hokkaido Electric Power;
- In 2006, EDP was classified among the 100 best companies by Standard & Poor's and the United Nations Environmental Program (UNEP) for the quality of its sustainability reporting;

In 2006, ENERSUL won two prizes for its good environmental practices. One was the Troféu Marco Verde from the Douradas/MS Environment Department for the PROJETO SOCIO AMBIENTAL VIVEIRO project in indigenous communities in Douradas/MS, growing 10,000 native and fruit trees and restoring waterside vegetation on native reserves. The other was Top of Environmental Quality from the Brazilian Parliamentary Society (OPB), awarded to companies that abide by sustainability and environmental legislation.

# 6.3. Research, development and innovation

EDP Inovação was set up in 2006. It is the company that fosters innovation in the EDP Group, which also encompasses Labelec. In addition to studies and laboratory research for which Labelec is traditionally responsible, with considerable know-how in the technical management of electricity sector assets, the new company is responsible for three other areas:

- Technology ventures;
- Innovation in products, organisation and processes;
- Transversal support for research, development and innovation.

In December 2006, the company's Innovation Channel was set up to share the innovations that occur every day at EDP enabling each employee to contribute. This was an important step in the development of innovation in the EDP Group.





The preparation of the new framework of innovation did not stand in the way of ongoing R&DI projects, which focused on the three main areas of renewable energies, new technologies and micro-generation, conventional generation and the reduction of environmental impacts and electricity distribution grids.

The table below shows how far goals for 2006 were achieved.

### **Commitments in 2006**



# 1 - Renewable energies, new technologies and microgeneration

Generation from renewable sources in general and wave power in particular and micro-generation were given special attention in 2006. EDP was involved in the following projects:

BREAKWAVE – This is an oscillating water column power plant to be installed in the new north seawall in the Douro Estuary with a power of around 750 kW. The necessary studies and plans and the application for European funding (6th Framework TR&D Programme) were completed. The plant is scheduled to go into operation in summer 2008;

- AQUABUOY This is technology based on a floating device and a hydraulic system for offshore use. EDP is participating in the development of this demonstration project and the first facility, supplying 2 MW, is expected to be installed in 2008 and 2009. The project is in the wave-tank trial phase and a prototype for sea demonstrations is going to be built. Negotiations for European funding (6th Framework TR&D Programme) were completed and we are now awaiting the signing of the contract;
- EDEN ("Endogenising the Development of New Technologies") - This is a project for the creation of a national technology platform for the future use of hydrogen. Funding for the project was approved in a financial incentive contract between IAPMEI and a consortium to which EDP Produção belongs;
- FUTURED ("Plataforma Tecnológica de Redes Eléctricas del Futuro") – This is the definition of lines of research for transposing current grids to those that will be needed in the future, taking into account the growing inclusion of distributed generation and special regime generation and the demand for higher quality by customers.
- \*\* "More MicroGrids" This is an EU project for characterising types of distribution grids (urban and rural MV grids) in view of the growing integration of micro-generation.

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# 2 - Conventional generation and reduction of environmental impacts

The following environmental projects were particularly important in this area:

- Participation in the Plataforma Tecnológica del CO<sub>2</sub>, to develop technologies for collecting and storing CO<sub>2</sub> while maintaining an income/cost balance
- NanoGLOWA Nanomembranes against Global Warming, a project described on page 68 of this report, scheduled to last five years;
- Continuation of the project to grow plants native to the Serra de Arrábida hills for the reforestation of deteriorated areas using greenhouses heated by thermal effluent from Setúbal power station;
- \*\* "Desarrollo tecnológico integral de la cadena de valor de la biomassa destinada a la valorización energética", launched by the Consejaría de Industria del Principado de Asturias, with particular focus on boiler combustion processes;
- Use of biodegradable oils as lubricants in some equipment to analyse the possibility of increasing their use at hydroelectric plants (Douro and Tejo-Mondego);
- Participation in the Integrated Study of the Environment and Health in Sines project (continuation of the SINESBioAr project) by Sines Municipal Council and CCDR-A. After the EC refused to include the project in the EU LIFE – Environment programme, it is now being reformulated to ensure its continuity. It will be implemented in 2007-2009.
- Technical preparation for trials in 2007 using ketamine V112 to replace hydrazine in the chemical conditioning of the water-steam circuit of the Barreiro Thermoelectric power station, in view of the handling risks associated to hydrazine;

Several innovative chemical studies were conducted in the field of furanic compounds (thermal stability) and the detection of corrosive sulphur in insulation oil.

# 3 - Electricity distribution grids

In addition to the micro-generation projects already mentioned, EDP was also involved in the following:

- INFRANET: overhead line inspection, with a firm commitment to thermographic inspection and the introduction of laser technology to measure the distance of obstacles from lines;
- DENISE ("Distribución energética inteligente, segura y eficiente"): a project in a consortium led by Endesa and sponsored by the Spanish Ministry of Industry as part of the CENIT (Consórcio Estratégico Nacional en Investigación Técnica) programme to develop predictive maintenance schemes for electricity grids;
- Several projects aimed at the adoption of technologies with a lower environmental impact making electricity distribution in Brazil more productive and efficient (0.75% of net operating results must be invested in R&D):
  - Assessment of lightning to obtain accurate data on lightning strikes;
  - Weather monitoring system to optimise distribution;
  - Use of bi-metallic cables in primary and secondary periphery grids.



- Geo-processed epidemiological studies of the impact of 60 Hz electromagnetic fields on workers and the general public;
- Environmental solution for storing transformer oil;
- Development of alternative materials with better performance and service life to replace wood in the manufacture of cross arms, making it possible to reduce the use and wood and use recyclable materials;
- Replacement of mineral-oil insulation in transformers with biodegradable vegetable oil

# Commitments for 2007

Goal	Progress
Breakwave wave energy project	Continues in 2007 (completion expected in 2008)
Intranet project for infrared line inspection	Completion expected in 2007
Substantial increase in investment in R&DL, in particular in projects with a considerable environmental component and information technologies (EDP Inovação)	Target for 2010: annual investment of EUR 10 million in R&DI

# 6.4. Marketing strategy

In the area of communication, marketing and advertising, all action was in compliance with current legislation and EDP was not subject to any reprimand or complaints.

# a) EDP's website

In 2006, EDP's website was redesigned to make access to information easier and more transparent for stakeholders. A new sustainability area was created to demonstrate EDP's good practices in harmony with the principles of sustainable development approved in 2004.

### Group's economic performance



The EDP website's contents were reformulated to provide a complete source of information on the Group's activities and the energy sector in general for our customers, investors, other business partners, the academic community and the general public.

In the last four months of 2004, there were 1,815,138 visits, as shown in the graph below:

### Most visited pages - September to December 2006



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Changes were also made to the HC Energía website, with new graphics and search improvements. In 2006, there were more than 250,000 visits to the HC site.

# **b)** EDP's sustainability area

In September 2006, EDP opened its sustainability area at its head office in Portugal.



This area reflects the company's commitment to sustainability practices in all its activities. EDP will be counting on partnerships with a number of nongovernmental organisations. The contents are changed every two months.

In 2006, the sustainability area was managed in partnership with Quercus and UNICEF. In September and October, Quercus used the area to present the results of the Ecocasa and Ecofamília programmes. It was also used at the same time for evening concerts by the Youth Symphony Orchestra and to present EDP's new sponsorship and patronage policy, among many other campaigns related to sustainability and the community.

In the last two months of the year, UNICEF used the area to promote social responsibility and its commitment to a sustainable future. There was also a photo exhibition by Reuters on its latest publication, The State of the World. Some of the photos won the World Press Photo 2006 award.



# c) Customers

In anticipation of the liberalisation of the standard low-voltage market in Portugal, EDP began to position itself actively in the process. It developed the edp5D service, made-to-measure energy, which was a commercial success. Four priority lines of action were identified:

- Creation of a personalised goal and incentive plan (called reward chain) in line with the intensified competition expected in the free market;
- Design and implementation of new processes and procedures for customer service and sales to adapt EDP's channels to the new regulations and better commercial practices;
- Implementation of a new, agile, integrated information system for sales management, suited to meet the new challenges and requirements of the free market;
- Development and implementation of a commercial training plan for more than 700 employees, covering not only all points of contact with customers but also back-office areas.

For more details, see page 47 of this report.





In September 2006, the EDP Group conducted a campaign to strengthen its position in the market. Its new slogan was "Feel our Energy", which reconciles customers' trust in the present with that we hope to have in the future, which belongs to our children and must be sustainable.



# Commitments for 2007

Goal	Progress
Introduction of EDP corporate portal	New
Photovoltaic solar system supplying electricity to sustainability area	New
Quarterly activities in management of sustainability area	New

2006 Annual Report and Accounts Sustainability Report Certification of EDP's Sustainability Report


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– signed auditor's letter

## 2006 Annual Report and Accounts Sustainability Report Certification of EDP's Sustainability Report



#### 7. Certification of EDP's Sustainability Report

#### a) Scope and aims of certification

PriceWaterhouseCoopers (PWC) was selected to conduct the limited verification of EDP's Sustainability Report for 2006. Four companies whose performance in the area of sustainability and the environment has stood out were invited to tender for the contract in October 2004. The contract was awarded in November 2006.

PWC verified a set of indicators on activities in Portugal, Spain and Brazil, with the exception of EDP Gås, EDP SGPS and EDP Telecomunicações. The scope of the external verification of sustainability indicators was broader than in 2005, with another 11 indicators included. PWC used the International Federation of Accountants (IFAC) assurance method and the following standards:

1) ISAE 3000: Assurance Engagements other than Audits or Reviews of Historical Financial Information;

2) "Providing Assurance on Sustainability Reports"

3) Global Reporting Initiative (GRI).

#### **b)** EDP's self assessment

When drafting its 2006 Sustainability Report, EDP declares level B+, in accordance with the GRI application level criteria. PWC was asked to give an opinion on EDP's statement.

#### **Application level GRI**

	Application level	B +		
	Disclosure of G3 profile	Reported on: 1.1-1.2 2.1-2.10+3.1-3.13 4.1-4.17	ory	
isclosure	Disclosure of G3 Management Approach	Disclosed management approach per each indicator	ed by PWC categ	
Standard Disclosure	G3 Performance Indicators and Performance Indicators of Sectorial Supplements	Report of at least 20 performance indicators including at least one from each category: economy, environment, human rights labour practices, society and product responsibility	Report externally checked by PWC category	GRI REPORT



### 2006 Annual Report and Accounts Sustainability Report Certification of EDP's Sustainability Report



c) Independent report PriceWATerhouse(copers 🛛 PricewaterhouseCoopers & Associados - Sociedade de Revisores Oficiais de Contas, Lda. Palácio Sottomayor Rua Sousa Martins, 1 - 3º 1050-217 Lisboa Portugal Tel +351 213 599 000 To the board of Directors of Fax +351 213 599 999 EDP - Energias de Portugal, S.A. Independent verification report of the 2006 Sustainability Report (Free translation from the original in Portuguese) Introduction In accordance with the request of EDP – Energias de Portugal, S.A. (EDP), we performed an independent verification of the Key Sustainability Indicators table of the "Annual Report and Accounts 2006 - Sustainability Report" (Report). Such performance information includes the economical, operational, environmental and social indicators for Portugal, Spain and Brazil shown in section "Sustainability trends in the EDP Group". These indicators were verified against the assessment criteria found in the section "Annex-Glossary". Responsibility EDP's Board of Directors is responsible for the presented information, the assessment criteria, and for the systems and processes in respect of the collection, consolidation, validation and reporting thereof. Our responsibility is to conclude on the adequacy of the performance information, based upon our independent verification standards. Scope Our procedures were planned and executed using the International Standard on Assurance Engagements (ISAE) 3000, and having as reference Global Reporting Initiative (GRI) G3, in order to obtain a moderate level of assurance on the adequacy of both the performance information and the underlying processes and systems. The verification of the management self declaration on the application level of GRI3, based on GRI's Reporting Framework Application Levels, consisted on the verification of the consistency with the requirements regarding the existence of the data and information but not their quality and accuracy. PricewaterhouseCoopers & Associados - Sociedade de Revisores Oficiais de Contas, Lda. Sede: Palácio Sottomayor, Rua Sousa Martins, 1 - 3º, 1050 - 217 Lisboa Matriculada na Conservatória do Registo Comercial sob o nº 11912 Inscrita na lista dos Revisores Oficiais de Contas sob o nº 183 NIPC 506628752 Capital Social Euros 217.500 Inscrita na Comissão de Valores Mobiliários sob o nº 9077

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Our procedures were as follows: (i) identify the existence of internal management procedures leading to the implementation of economical, environmental and social policies. (ii) testing the processes and systems efficiency in respect of collection, consolidation, validation and reporting of the performance information previously mentioned (iii) confirming that given operational units follow the instructions for the collection, consolidation, validation and reporting of the performance information (iv) executing some procedures, using a sampling technique, in order to validate the information, (v) comparing financial and economical data with data in the "2006 Annual Report and Accounts – Institutional Report and Report on Corporate Governance" which has been audited by the auditor (vi) comparing greenhouse gases and consumption of primary energy technical data which has been verified by an independent verifier, and (vii) verifying the existence of data and information required to reach level B+, self declared by EDP group on their Report.

#### Conclusions

Based on our work described in this report, nothing has come to our attention that causes us to believe that internal control in respect of the collection, consolidation, validation and reporting of the operational, environmental and social performance information of Portugal, Spain and Brazil shown in the Key Sustainability Indicators table of section "Sustainability trends in the EDP Group", is not effective in all material respects.

Based on the assumptions described on the scope, we conclude that the Report includes the data and information required for the level B+ in accordance with GRI.

Without affecting the conclusion previously expressed, we underline that the comparative data related to 2005, expressed in the indicators table, has been verified by another entity.

Lisbon, March 9, 2007

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PricewaterhouseCoopers & Associados, SROC, Lda.



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#### Glossary

#### Glossary and acronyms

**Absentee rate -** ratio between the total hours missed and the total (theoretic) hours worked according to the employment audit.

AESE - Management and Business School.

**Amount of training -** total annual hours of training calculated by adding up the product of the number of hours by the number of participants, for each course, including all classroom or distance learning courses, seminars, congresses and conferences.

#### Area occupied by wind farms in classified areas:

Classified areas include those belonging to the Natura 2000 Network (special protection areas and sites) and the National Protected Area Network (national park, nature reserve, natural park, natural monument and protected landscape) and other areas classified under international commitments. Total surface area made available for the construction of a wind farm belonging to each company owned or managed, with management control, by the EDP Group. This surface area includes:

 1 - direct occupation by different elements making up the farm, such as foundations and access roads;

**2** - additional occupation for protective corridors for the farm and wind turbines.

**Ash** - solid waste from burning fuel originating from mineral impurities contained in the fuel. It may also contain unburned fuel. Fine-grained fly ash is blown out by the combustion gases. Coarse-grained slag accumulates at the bottom of the combustion chamber.

**Biomass -** non-fossil organic material of biological origin partially useable as a source of energy. The biomass used at the Mortágua power stations includes forest waste and pine and eucalyptus bark.

**Carbon intensity -** amount of CO<sub>2</sub> emitted per unit of energy produced.

**CDM – Clean Development Mechanism –** a mechanism established in the Kyoto Protocol allowing Annex I countries to fund CO<sub>2</sub> eq. emissions reduction projects in non-Annex I countries in return for tradable emissions reduction certificates in the same proportion.

**CEBD** - Chairman of the Executive Board of Directors.

**CEEETA -** Research Centre for Transport and Environment Energy Savings.

**Certified installed power -** percentage of the total certified installed net power.

**CGSB** - Chairman of the General and Supervisory Board.

**CLA -** Collective labour agreement.

**CMVM -** Portuguese Securities' Market Commission.

**CO<sub>2</sub> - carbon dioxide** - a colourless, odourless gas that is a component of ordinary air. In addition to natural sources, sources of human origin include the burning of fossil fuels, different industrial processes and changes in soil use. Although it does not directly affect human health, it is a greenhouse gas that contributes to the potential for global warming.

**Co-generation power station -** power station where the steam produced is turbined to generate electricity and then used for heating in industrial activities.

**Combined cycle (CCGT)** - electricity generation facility consisting of a gas turbine whose exhaust gases feed a heat recovery unit that generates steam to operate a second turbine.

**Cooling water -** volume of water collected annually for use in the primary circuit cooling system at the company's thermoelectric power stations.

**EBD** - Executive Board of Directors.

**EIA -** environmental impact assessment.

**EIS - Environmental impact statement -** a decision issued as part of an EIA on the feasibility of a project.



**Electricity consumption by generating plants** amount of electricity used by all the company's electricity generating facilities for their normal operation, including all departments involved in generation (consumption by auxiliary, synchronous compensation and pumping services) and those not involved.

**Electricity consumption in administrative buildings -** total annual consumption of electricity in the EDP companies' administrative buildings, excluding buildings inside substations or generating plants and those belonging to EDP Inovação.

**Emissions into estuary waters -** total emissions of treated effluent into rivers and estuaries, excluding cooling water.

**Emissions into the sea -** total emissions of treated effluent into the sea, excluding cooling water.

**Emissions trading -** the European emission allowance trading scheme began in January 2005 and is the largest multi-country and multi-sector emissions trading scheme. It is supported by Directive 2003/87/EC, which came into force on 25 October 2003.

**Environmental fines -** sum of fines or compensation paid to third parties for infringement of environmental legislation.

**Environmental Impact Study (EIS)** - all the technical documents and studies drawn up by the promoter of a project. It includes, among other information, an identification and assessment of probable positive and negative impacts that the project may have on the environment and any measures to prevent, minimise or compensate for expected negative impacts.

Environmental investment - This is the amount of capitalised environmental expenditure on measures taken by companies within the EDP Group's accounting perimeter using the full consolidation method to avoid, reduce or repair environmental damage, which satisfy the criteria for recognition as assets, i.e. they generate future economic benefits, they can be reliably measured, they are identifiable and are expected to be used in more than one period. Environmental expenditure must be broken down by environmental domain, as follows: 1- protection of the air and climate, 2- wastewater management, 3- waste management, 4- protection and recovery of soils, underground and surface water, 5- reduction of noise and vibrations. 6- protection of biodiversity and the landscape, 7electromagnetic radiation management, 8environmental research and development, 9- other environmental management and protection activities.

**Environmental Management System (EMS)** - it is part of a global management system and includes the organisational structure, planning of activities, responsibilities, practices, procedures, processes and resources needed to develop, implement, review and maintain an environmental policy.

**ERSE -** Energy Service Regulating Body.

FEUP - Porto University Faculty of Engineering.

**FLAD -** Foundation American - Portuguese of the Development.

**Frequency index (FI) -** number of accidents leading to sick leave per million hours worked.

**Fuel consumption -** annual total amount of fossil fuels (and biomass) used in electricity generation at all company facilities.

**Fuel consumption by vehicles** - annual consumption of fuel by all vehicles owned by the company, excluding vehicles for personal use.



**GHGs – greenhouse gases –** In addition to water vapour and carbon dioxide (CO<sub>2</sub>), they include methane (CH4), nitrous oxide (N20) and halogenated compounds such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF6).

GHG Protocol - Greenhouse Gas Protocol Initiative a business partnership between several entities to develop accepted international standards for monitoring and reporting GHG emissions and promote their global acceptance.

**Gravity index -** number of workdays lost per million hours worked.

**GRI - Global Reporting Initiative -** an independent global institution that develops worldwide reporting guidelines to help companies in drawing up reportson their economic, environmental and social performance.

**Gross electricity generation -** total electricity measured at the output point of all the main generators of power stations, including therefore the energy absorbed by the power stations' auxiliary services and losses in the main transformers.

**GSB** - General and Supervisory Board.

Hazardous waste - annual sum disposed of in terms of hazardous waste that is dangerous to health or the environment, defined in accordance with the European Waste List approved by Ministerial Order 209/2004 of 3 March, excluding waste resulting from services' business activities.

### High voltage (HV):

**Portugal -** voltage between phases with an effective value of over 45kV and equal to or less than 110 kV.

**Spain -** voltage between phases with an effective value of over 36kV and under 72.5 kV.

**Hydroelectric energy capability factor (HECF)** - an indicator for quantifying deviations from the total amount of hydroelectric energy generated in a certain period in relation to that which would be produced in average hydrological circumstances.

ICN - Nature Conservation Institute.

**IFAES -** International Faculty for Executives.

**ISO 14001 -** an International Organization for Standardization standard belonging to the 14000 family on environmental management systems.

IST - Superior Technical Institute.

**JI - Joint implementation -** a mechanism established by the Kyoto Protocol allowing an Annex I country to fund projects in another Annex I country in exchange for tradable CO2 e.q. emission reduction units.

Km of overhead lines by voltage (HV and MV) in classified areas - Length of overhead lines operating in the grid belonging to each company in nature protection areas. In Europe, a nature protection area is an area legally classified as belonging to the Natura 2000 Network (special protection zones and sites) and the National Network of Protected Areas (national park, nature reserve, natural park, natural monument and protected landscape) and other areas classified under international commitments.

**LV - low voltage -** voltage between phases with an effective value of 1 kV or less.

### Medium voltage (MV)

**Portugal -** voltage between phases with an effective value above 1 kV and equal to or less than 45 kV.

**Spain -** voltage between phases with an effective value above 1 kV and equal to or less than 36 kV.



**Net electricity generation** - total electricity transmitted to the grid, resulting from gross generation after subtracting consumption used in its generation by the power station's auxiliary services and in the main transformers.

**NGO -** non-governmental organisation.

**Non-hazardous waste -** annual sum of quantities of non-hazardous waste disposed of, defined in accordance with the European Waste List approved by Ministerial Order 209/2004 of 3 March, excluding waste resulting from services' business activities.

**NOx – nitrogen oxides –** gases consisting of one nitrogen atom and a variable number of oxygen atoms. They are air pollutants formed by nitrogen oxidation at high temperatures and one of the causes of photochemical smog and acid rain.

Number of substations in classified areas - Total number of operating substations belonging to each company in nature protection areas, divided into HV and MV. In Europe, a nature protection area is an area legally classified as belonging to the Natura 2000 Network (special protection zones and sites) and the National Network of Protected Areas (national park, nature reserve, natural park, natural monument and protected landscape) and other areas classified under international commitments.

**OHSAS 18001 standards -** standards belonging to the Occupational Health and Safety Assessment Series for the certification of occupational health and safety management systems.

**On-duty accident** - any occupational accident occurring while on duty for the company at the workplace or during working hours resulting in sick leave or death.

**Outgoing electricity from the distribution grid -** Total electricity sold and billed by voltage (HV, MV, LV, SLV, NLV and street lighting) to end users, suppliers or agents outside the EDP Group.

**Particles -** an air pollutant consisting of fine material suspended in the air.

**PCBs -** polychlorobiphenyls - a group of enduring, toxic, synthetic chemical compounds. Until their manufacture was banned in the late 1970s, they were widely used as insulating fluid in the electricity industry worldwide.

**Percentage of qualified suppliers -** the percentage of suppliers from which the annual accumulated value of goods received is equal to or greater than EUR 75,000, and which are qualified under the EDP Group's supplier qualification system in Portugal.

**PPA -** power purchase agreement.

**PRE -** Special regime generation, consisting of minihydroelectric generation (up to 10 MW), renewable energies and waste, co-generation and low-voltage generation.

**Raw water -** water collected and used in thermoelectric generation and general and auxiliary services, not including cooling water in the main circuit.

**Recovered waste (percentage)** - ratio between the total waste recovered and the total waste disposed of, including coal fly ash sold and waste resulting from the business activities of services.

**REN -** Portuguese National Energetic Grids.

Research and development (R&D) costs - this is the environmental expenditure on R&D measures by each company owned or managed, with management control by the EDP Group that were capitalised or included in the profits for the year. Costs are only capitalised if they meet the following requirements. 1- The technical feasibility of the asset can be assessed. 2- The intangible asset can be assessed. 3- The intangible asset will generate future benefits. 4- It is possible to measure the outlay attributable to the intangible asset accurately.



**RQS -** Service Quality Regulations establishing the minimum standards of technical and commercial quality for the service provided by companies in the National Electricity System (SEN).

Sales of electricity – regulated market – total electricity sold and billed according to voltage group (HV, MV, LV, SLV and street lighting) to regulated final consumers.

**Sales of electricity – supply –** total electricity sold and billed according to voltage group (HV, MV, LV, SLV and street lighting) to regulated final consumers, sellers or agents outside the EDP Group.

**SF6 - sulphur hexafluoride -** a greenhouse gas with a global-warming potential of 23,900.

**SLV - special low voltage -** LV supplies or deliveries for contracted power greater than 41.4 kV.

**SLV - standard low voltage -** LV supplies or deliveries for contracted power of 41.4 kV or less, including supplies for street lighting.

**SO<sub>2</sub> - sulphur dioxide -** an air pollutant emitted by natural and human processes, the burning of fossil fuels and a number of industrial processes. It is one of the substances responsible for acid rain.

**Social tariff in Brazil -** for customers meeting the requirements in the Federal Government "Baixa Renda" (Low Rent) Programme, i.e. average monthly consumption of less than 80 kWh in the previous 12 months of recorded consumption or monthly consumption of more than 80 kWh and less than 220 kWh, provided that the customer declares a household income per capita of less than half the minimum wage.

**Social tariff in Portugal** - a tariff for consumption at permanent residences, even when a small business is run there, with a contracted power of up to 2.3 kVA and an annual consumption of no more than 400 kWh, as per the price regulations established by the Energy Services Regulating Body. **Specific atmospheric emissions -** the ratio between total atmospheric emissions and total gross thermal generation of all EDP's thermoelectric power stations or the ratio between atmospheric emissions and total EDP Group generation.

**SQF** - supplier qualification system.

**Stakeholder -** any agent who directly or indirectly influences or is influenced by the company.

**Steam generation -** all steam produced at EDP cogeneration power stations and sold to industrial customers.

**TIEPI – installed power equivalent interruption time** (minutes) - a technical indicator of quality of service. It is the quotient between the sum of the sum of the installed capacity at public and private service transforming stations by supply outage time at these stations and the sum of the installed capacities of all the public and private service transforming stations in the distribution grid.

**Total atmospheric emissions** - emissions resulting from the operations of the main and auxiliary groups. CO<sub>2</sub> is calculated solely on the basis of GHG emission certificates. For other fuels, it is calculated on the basis of standard emission factors and on the LCV (lowest calorific value). In conventional thermal generation, NOx and particles are calculated on the basis of continuous monitoring data and fuel consumption. SO<sub>2</sub> is calculated on the basis of the fuel's sulphur content. In co-generation and biomass, all emissions, with the exception of CO<sub>2</sub>, are calculated on the basis of half-yearly campaigns and the number of hours of operation.

**Total primary energy consumption** - annual total amount of fossil fuels and biomass used at all the company's thermal generation facilities, calculated on the basis of the mean net calorific value (NCV) weighted on the basis of volume used for each type of fuel. At co-generation power stations, the NCV is an annual mean of daily consumption.



**Trained employees -** the ratio between the number of employees on the payroll who have received training, regardless of the number of courses attended, and the total number of company employees.

**Turnover -** ratio between average number of employees admitted to and leaving the company and the total number of employees.

**UE – undistributed energy –** a technical indicator of service quality, representing the estimated amount of undistributed energy at the delivery points of bound distributors due to outages over a certain period of time (normally one calendar year).

Waste routed through to final destination - Annual total waste from all EDP's industrial establishments disposed of or recovered by a licensed operator. In Portugal, this includes by-product sold and waste generated by services' business activities.

**Water consumption in electricity generation -** annual total amount of water used at thermal generation facilities, including total volumes of raw water (for processes).

Water consumption in administrative buildings annual total amount of mains water used in EDP company administrative buildings, excluding buildings inside substations or generating plants and those belonging to EDP Inovação.



GLOBAL COMPACT INITIATIVE (GRI)	GC Section of SR (*)	E/
STRATEGY AND ANALYSIS         1.1       Statement of Chairman of General and Supervisory Board         1.1       Statement of Chairman of Executive Board of Directors         2       Organisational profile         3       Report scope         4       Governance	Message Chair. GSB (**) Message Chair. Executive Board (**) 2;6 1;7;(**) 1;3;4;Institutional Report	
ECONOMIC PERFORMANCE         EC1       Direct economic value generated and distributed         EC2       Financial implications caused by climate change         EC3       Coverage of obligations concerning organisation benefit plans         EC4       Significant financial aid provided by government	6 5.4 4.1; Report&Accounts 4.3 e 5.3	
MARKET PRESENCE         EC6       Policy, practices and proportion of costs with local suppliers where significant business operations are implemented         EC8       Development and impact of investments on infrastructures and services essentially for public benefit         EC9       Understand and describe significant indirect economic impact	4.1;4.2 4.4 4.5	
MATERIALS EN1 Consumption of material EN2 Percentage of material used that is waste	2.2;5.3 2.2;5.4	
ENERGY         EN3       Direct energy consumption         EN4       Indirect energy consumption         EN5       Energy saving         EN6       Supply of energetically efficient products and services or those cased on renewable energy         EN7       Initiatives to reduce indirect consumption of energy and the reduction achieved	2.2;5.4 n.a. 5.2;5.3 4.3;5.2;5.3 2.2;5.1	
WATER EN8 Total water collection segmented by source EN10 Percentage and total volume of water that is recycled and reused	2.2;5.4 does not exist	
BIODIVERSITY EN11 Sites in protected areas EN12 Significant impact on biodiversity in protected areas and areas with a rich biodiversity EN13 Protected and restored habitats EN14 Current and future strategies and plans to manage biodiversity impact	5.4;5.5 5.4 5.5 5.5	
EMISSIONS, EFFLUENTS AND WASTE EN16 Emissions of greenhouse gases EN17 Other indirect greenhouse gas emissions EN18 Initiatives to reduce greenhouse gas emissions EN19 Emissions of ozone destroying substances, by weight EN20 NO <sub>x</sub> , SO <sub>x</sub> and other significant atmospheric emissions EN21 Liquid effluent total EN22 Waste total by type and handling method EN23 Total number and volume of significant spills EN24 Quantity of waste	5.4 5.1 5.1;5.4 n.a. 5.1;5,5.4;(**) 2.2;5.4 5.4 5.4 5.4 n.a.	
PRODUCTS AND SERVICES EN26 Initiatives to mitigate environmental impact EN27 Recoverable percentage of products and respective packaging and the percentage effectively recovered	4.5 e 5.4 n.a.	
CONFORMITY EN28 Monetary value of significant fines	2.2;5.4	
TRANSPORT EN29 Significant global impact of transport products	5.1 e 5.4	
TOTAL EN30 Total environmental costs and investments by type	2.2;5.4	
EMPLOYMENT LA01 Specify total labour per type of job (full time or part time), type of employment contract full or partial) and by regions LA02 Job creation and turnover by age group, gender and region LA03 Benefits for full-time workers that are not provided to temporary or part-time workers	4.] 4.];(**) 4.]	
WORK/MANAGEMENT RELATIONS LA04 Percentage of workers represented by trade unions LA05 Minimum advance notice reuired in the event of operating alterations	4.1 4.1	
OCCUPATIONAL HEALTH AND SAFETY LA06 Percentage of total labour represented on official helath and safety committees LA07 Ratio of accidents, occupational diseases, days lost, absenteeism and deaths related to work (including subcontracted workers) by region	4.1	
by region LA08 Education, training, advice, prevention LA09 Hygiene and safety matters covered by official agreements with trade unions	2.2;4.1; (**) 4.1 4.1	

(\*\*) See definition in glossary



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### **GRI and Global Compact Index**

GLOE	AL COMPACT INITIATIVE (GRI)	GC Section of SR (*)	E/C
	IING AND EDUCATION Average hours of training per year, per employee and per category	4.1	
	Programs to manage skills and lifelong learning, which raise the employability of workers and aid them in managing career		
412	objectives Percentage of workers subject to periodic performance assessent and career advancement	4.1 4.1	
	<b>DRTUNITY DIVERSITY AND EQUALITY</b> Make-up of management and the group responsible for corporate governance; man/woman proportion, age group, minoritie and other diversity indicators	3.1 e 4.1	
	TMENT AND PROCUREMENT PRACTICES Percentage and total number of significant investment contracts that include human reights clauses or which underwent a human		
	rights evaluation Total training hours of employees on policies and practices related to aspects of human rights relevant to business operation	4.2	
	including the percentage of trained employees	4.1	
	IOM TO ASSOCIATE AND JOIN TRADE UNIONS Operations that endanger the freedom to associate and collective bargaining, and measures taken to mitigate that risk.	4.1	
	LABOUR Business operations identified as being of significant risk in regard to the occurrence of child labour, and measures taken to aid the eradication of child labour	4140 - 44	
NRC	ED AND COMPULSORY LABOUR	4.1;4.2 e 4.4	
R7	Business operations identified as being of significant risk in regard to the occurrence of forced and compulsory labour, and measures taken to aid the eradication of forced and compulsory labour	4.1;4.2	
<b>CU</b> 28	RITY PRACTICES Percentage of security personnel trained in policy and procedure in regard to aspects of human rights relevant to the praanisations' business	4.1	
9	Total occurrences of human rights violations amongst local populations and action taken	5.4	
) 1	NUNITY Nature, scope and effectiveness of programs and practices that assess and manage the impact of business operation son communities including		
2	the business start-up, operating and close-down phases Percentage and total number of business units undergoing assessment for corruption risk	4.4 4.5; Institutional Report	
ORR 3	UPTION Percentage of workers trained in the organisation's anti-corruption procedures and policy	41	
4	Actions in response to situations of corruption	4.1 4.1	
	C POLICY Sums of money and contributions to political parties, their candidates and related institutions, per country	n.a.	
	COMPETITIVE BEHAVIOUR Total number of lawsuits due to anti-competitive and anti-trust behaviour and monopolisation	4.5	
ONF 8	ORMITY Monetary value of significant fines and total number of non-monetary penalties resulting from non-compliance with laws and regulations	NBSI (*) - Financial Report	
ons 21	STATES AND SAFETY Stages of life-cycle in which the impact of products and services on the health and safety of consumers are assessed with a view to improvement.		
2	Percentage of products and services Total number of occurrences of non-conformity with legislation and with voluntary codes regarding the impact of products and services on the	4.1;4.3;4.4	
	health and safety of consumers during the life-cycle, by product and occurrence type	5.4	
BEL 3	LING OF PRODUCTS AND SERVICES Type of information on the products and services required by procedures and the percentage of significant products and services bound to said		
5	information requirements Consumer satisfaction practices, including the results of research on the matter	4.3 4.3	
6 7	Programs to adhere to voluntary laws, standards and codes in relation to publicity, including advertisement, sponsorships and patronage Total occurrences and non-conformity with legislation and voluntary codes regarding publicity and marketing, including advertisement,	6	
	sponsorship and patronage, by type	6	
.OB	AL COMPACT	GC Section of SR (*)	
	Human Rights Principles		
	Respect and protect human rights Prevent violations of human rights	1;4 1;4	
	Employment Rights' Principles Support freedom to associated in the workplace		
	Abolish forced labour	1;4 1;4	
	Abolish child labour Eliminate discrimination in the workplace	1;4 1;4	
	Environmental Protection Principles		
	Support a preventive approach to environmental challenges Promote environmental responsibility	4.5 4.5	
	EEncourage environment-friendly technology	5	
)	Combatting Corruption Principle Combat corruption in all its forms, including extorsion and gifts	1;4	
esser	tital; c: complementary; SR: Sustainability Report; NBSI: Notes to the Balance Sheet and Statement of Income (**) See definition in glossary		







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