



SUSTAINABILITY
REPORT

Our Commitment

2010

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About the Report

For the sixth year running, we publish the Sustainability Report of REN – Redes Energéticas Nacionais, SGPS, S.A. (REN), in which the activity developed in this field in 2010 is described.

The contents of this report cover the activities of the following companies: Rede Eléctrica Nacional S.A., REN Gasodutos S.A., REN Armazenagem S.A., REN Atlântico S.A., REN Trading S.A., REN Serviços S.A. and ENONDAS, S.A., except economic indicators, which are consolidated for the REN Group. Whenever reported indicators do not correspond to the referred scope, the restriction is indicated.

The information presented in this report can be supplemented with the Annual Report 2010 and the Corporate Governance Report 2010, or it can be checked in our website or in others websites, following the references marked throughout the Report.

This report was prepared in accordance with the third version of the guidelines (G3) issued by the Global Reporting Initiative (GRI), based on the protocols of the overall indicators and on the Electric Utility Sector Supplement. We adopted and comprehensively responded to the requirements corresponding to the A+ application level of GRI.

	C	C+	B	B+	A	A+
Self-declared					✓	
Third-party checked					✓	
Checked by GRI					✓	

The GRI index is in the appendices, corresponding the contents of this report to the requirements.

This document was assured by an independent body, Deloitte & Associados, SROC S.A., in accordance with the ISAE 3000 (International Standard on Assurance Engagements 3000) and with reference to the Global Reporting Initiative, third version (GRI3) and the AA1000APS Accountability Principles Standard (2008).

AA1000APS Accountability Principles Standard (2008)

Aware of the importance of stakeholder engagement to formulate and implement a sustainability strategy, we reviewed, in 2009, our approach to the themes of sustainable development, applying the principles of inclusion, relevance and responsiveness.

The application of these principles, briefly presented, was reflected in the strategic pillars as well as in the content of the Sustainability Report.

- **Inclusion** (participation of the stakeholders in the development and implementation of the sustainability strategy): methodologies and engagement and participation processes of several stakeholders were defined. In the definition of our sustainability strategy, we tried to include relevant themes and stakeholders' expectations.
- **Relevance** (determination of the relevant themes for REN and for stakeholders): for the identification of relevant themes, we benchmarked peer companies, analysed the main trends of the sector and considered the findings of the stakeholder engagement in 2009.
- **Responsiveness** (REN's responsiveness to relevant themes through decisions, actions, performance and communication): we tried to answer to the expectations and concerns shown by each stakeholder, individually or globally. Overall, the main mean of communication used is the Sustainability Report, in which we communicate the strategy, initiatives and performance achieved.

In the sections of this report on sustainability strategy and stakeholder engagement, detailed information about the application of these principles is provided.

(SR chapters 2.1 and 2.2)



Throughout this report, we will make some questions to readers, with the possibility of online answer. Contributions collected will be processed and the findings will be presented in the next sustainability report, which will be published in 2011, in which we will seek to meet stakeholder expectations.

We respect the commitment, which arises from joining the United Nations Global Compact initiative in 2005, of providing information about the progress of the implementation of the 10 Principles, which is shown throughout the report by this symbol.



Principles of Human Rights

- 1 Respecting and protecting human rights
- 2 Stopping violations of human rights

Principles of Labour Law

- 3 Supporting the freedom of association at work
- 4 Abolishing all forms of forced and compulsory labour
- 5 Abolishing child labour
- 6 Eliminating discrimination at work

Principles of Environmental Protection

- 7 Supporting a preventive approach to environmental challenges
- 8 Promoting environmental responsibility
- 9 Encouraging environmentally friendly technologies

Principles against Corruption

- 10 Fighting against corruption in all forms, including extortion and bribery

Chairman's statement

It is with great pleasure that we publish our sixth Sustainability Report. REN has dedicated the best of its efforts to the maintenance of high service quality standards and to the minimisation of impacts on the environment and on the quality of life of local communities arising from the construction of infrastructure. We assume the commitment to face sustainable development as one of the key pillars of our activity, and we nurture this value as part of REN's culture. Our commitment has been increasingly recognised, even internationally, of which the most recent example was the distinction of REN at the World Finance Awards as the Company of the Decade in Portugal (2001-2010), with a mention to the measures we have taken in recent years concerning sustainability.

In 2010, REN invested close to 443 M€ in essential projects for the well-being of population, for the competitiveness of companies, and for the energy security of our country. I highlight the investments in lines that transport the energy produced by new wind plants to the consumption centres, the reinforcement of the interconnections with Spain – which provides consumers with competitive access to all energy sources produced in the Iberian Peninsula and the capacity expansion of the Sines LNG terminal, allowing Portugal to have access to natural gas from different geographical areas and the entrance of new operators in the market for natural gas.

The year 2010 was also marked by the concession contract of a pilot zone for the production of electricity from wave energy, with ENONDAS. We expect this new subsidiary to attract technical projects from several countries that represent this innovative area, thereby contributing to affirm Portugal as one of the leading countries in renewable energy sources.

This way, REN will continue to perform with full commitment an important role in energy revolution, which is transforming the way to produce, transport and consume energy in the world.

During 2010, REN drafted a new methodological guide for assessing the environmental impact of infrastructure in the national electricity transmission grid – this case, it was applied to substations. This guiding document arose from the need to streamline the Strategic Environmental Assessment for the substations following the protocol established between REN and the national environment agency. The final draft of this Guide will be published in



Rui Cartaxo

2011, following the period of consultation started last summer.

The year was also marked by the review of REN's strategic plan, which, besides reinforcing core activities, clearly points to the use of the company's technical skills to develop new business opportunities abroad.

I take the opportunity to renew our adhesion to the ten principles of the United Nations Global Compact initiative and to formulate the desire that this report may show our concerns of deepening the relationship with our stakeholders.

To them, at last, I would like to leave a word of acknowledgment for their involvement and support provided to REN, including in the several initiatives related to sustainability and social responsibility.

Rui Cartaxo
Chairman of the Board of Directors and the Executive Committee
REN – Redes Energéticas Nacionais

Commitments – what we said – what we did

Regardless of other initiatives held and that are reported throughout this report, the balance of the commitments previously taken on is made as follows:

CATEGORY	MOTIVATIONS	ACTIONS FOR THE 2010-2012 TRIENNIUM	STATUS	INITIATIVES DEVELOPED IN 2010
1. Code of Conduct	Adhesion by employees and other stakeholders to ethical and integrity principles	Assessing the adequacy of the code of conduct to the principles of social responsibility		Review of the code of conduct in late 2010
		Strengthening the disclosure of the code of conduct		Disclosure of the code of conduct to all employees (SR page 23)
2. Technical knowledge and expertise in the energy sector	Maintenance of technical and specialised know-how among employees	Ensuring the transfer of technical and specialised knowledge between REN's employees of different generations		VIVA Programme (SR page 29)
3. Risk management	Mitigation of strategic threats and risks	Reinforcing the implementation of the risk management model		Creation of the committee of Risk Management (SR pages 21)
4. Corporate social responsibility	Organisation of the practices of corporate social responsibility in a social responsibility management system by integrating it with the Integrated Management System of Quality, Environment and Safety implemented and certified in REN	Extending the scope of procedures that are common to the Integrated Management System of Quality, Environment and Safety		Identification and review of documentation procedures to include aspects of Social Responsibility
		Implementing the requirements of the standard of social responsibility to strengthen REN's practices and policies in this scope		Execution of a preparatory work to be implemented in 2011-2012
5. Stakeholder engagement	Increase of employee motivation	Reinforcing commitments with employees		Promotion of skills and internal communication through new programmes: VIVA, POP, STAR and Roadshow REN 2010 (RS pages 29-30)
	Improvement of the relationship with REN's stakeholders	Developing a programme of community engagement		Initiatives in several areas: social, volunteering, sports, culture, education and environment (SR page 35)
		Strengthening the relationship and involvement with owners		4,200 owners were contacted (SR pages 24). Reinforcement of the activities related to the fulfilment of the AA1000 standard
		Promoting information sharing and specialised knowledge between companies and entities in the energy sector		Regular academic and scientific partnerships, participation in working groups of organisations and associations about the sector, publication of scientific articles, active participation in international conferences and discussion forums

6. Climate change and resource consumption	Reduction of greenhouse gas emissions and efficiency improvement of resource consumption	Increasing energy efficiency of premises and operations		Conduction of energy audits to the facilities of Vermoim, Sacavém and Ermesinde
	Reinforcing the use of renewable energy sources in the energy consumption of premises		Technical and economic assessment of energy efficiency proposals Set-up of solar panels in two GRMS stations 1109 Seixal and 1209 Frielas ((SR page 65))	
7. Communication	Recognition by society and employees of REN's sustainability practices in the several aspects of the business Satisfaction of REN's stakeholders Consolidation of REN's positioning in new technologies, innovation and investigation	Reinforcing the communication of REN's corporate social responsibility practices Integrating social responsibility principles in the process of selecting and assessing suppliers	 	Lectures at several events (eg. 4th Social Responsibility Forum, Global Compact Network Portugal, National Conference on Impact Assessment) and response to several surveys and prizes in sustainability and social responsibility Qualification of suppliers with issues related to social responsibility

Key indicators

ECONOMIC INDICATORS⁽¹⁾

	2009	2010	10/09
EBITDA (M€)	384.1	431.4	↑ 12%
Staff costs (M€)	55.2	51.2	↓ 8%
Ordinary dividends distributed (M€)	88.1	89.2	↑ 1%
Total net assets (M€)	4294.1	4460.5	↑ 4%
Capital expenditure for R&D (M€)	2.2	1.7*	↓ 23%
Direct economic value created ⁽²⁾	314	310	↓ 1%
Direct economic value distributed ⁽³⁾	265	289	↑ 9%
Direct economic value retained	48	21	↓ 56%

⁽¹⁾ The accounting amounts reflect a change of treatment imposed by the application of IFRIC12, a standard that sets out the principles for recognition and valuation of concession contracts.

⁽²⁾ Direct economic value created is the sum of: net value added (NVA) (270.9 M€); net earnings not inherent in GVA (45.9 M€); financial earnings (2.2 M€); dividends from subsidiaries (3.8 M€); minus other costs and losses (13 M€).

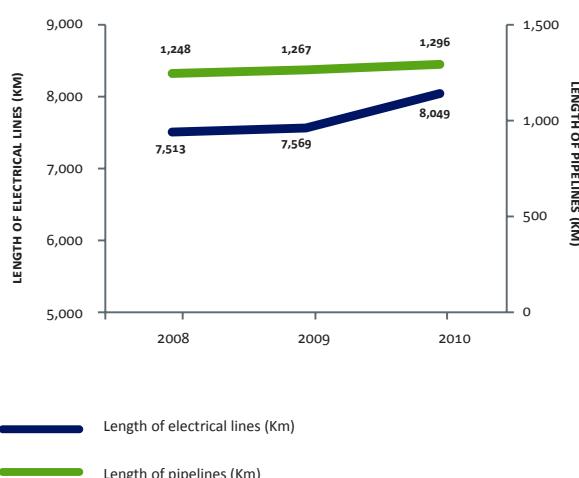
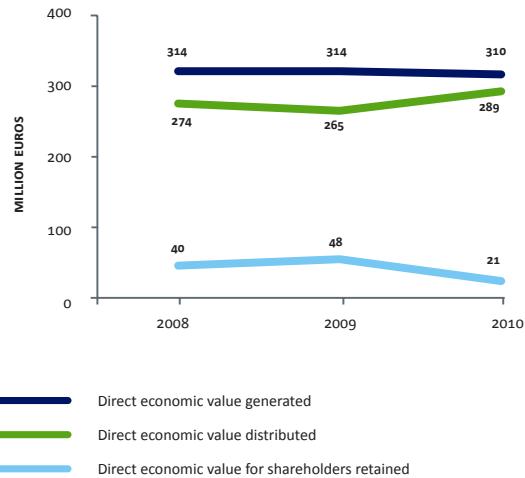
⁽³⁾ Direct economic value distributed corresponds to costs with employees and management bodies (51.2 M€); dividends paid to shareholders (89.2 M€); interest payment (89.9 M€); taxes paid to the state (1.3 M€) and corporate income tax (56.4 M€); and support to the community (donations: 0.7 M€).

* Estimated amounts.

OPERATIONAL INDICATORS

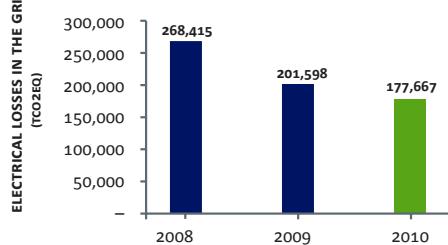
	2008	2009	2010	10/09
Electricity supplied (GWh)	50,742	51,084	52,603	↑ 3%
Length of electrical lines (Km)	7,513	7,569	8,049	↑ 6%
Number of substations and switching stations	69	73	75	↑ 3%
Transformer capacity (MVA)	26,194	28,235	30,205	↑ 7%
Natural gas supplied (billion m ³)	4.5	4.6	4.8	↑ 4%
Length of gas pipelines (Km)	1248	1267	1296	↑ 2%
Capacity of LNG tanks (thousands m ³ (n))	2x120	2x120	2x120	–
Underground gas storage capacity (million m ³)	66.3 ⁽⁴⁾	138.2	138.2	–

⁽⁴⁾ The indicated volume expresses the maximum capacity available for commercial purposes, which is conditioned by the specific thermodynamics of storing natural gas at high pressure in salt caverns.

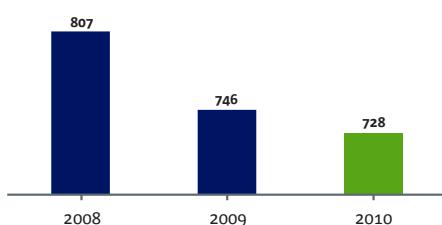


ENVIRONMENTAL INDICATORS

	2008	2009	2010	10/09
Environmental costs (M€)	6.1	6.7	10.7	↑ 60%
Emissions from losses in the electricity grid (tCO2eq)	268415	201598	177667	↓ 12%

EMISSIONS FROM LOSSES IN THE ELECTRICITY GRID (tCO2EQ)**SOCIAL INDICATORS**

	2008	2009	2010	10/09
Number of employees	807	746	728	↓ 2%
Donations (M€)	1.0	1.7	0.7	↓ 58%
Training (number of hours per employee)	16.7	23.1	19.0	↓ 18%
Turnover rate (%)	5.0	10.5	8.7	↓ 17%

NUMBER OF EMPLOYEES

1. About REN

1.1 Profile

1994	1996	2000	2001	2003	2005	2006	2007	2008	2010
Set-up of REN – Rede Eléctrica Nacional, S.A., as a subsidiary of EDP		Legal break-up of REN and EDP Group and concession for operation of the Portuguese transmission grid (RNT) for a period of 50 years			Certification ISO 9001; ISO 14001:2004 and OHSAS 18001 and connection of the first wind farm to the RNT			Launch of the activities of REN Serviços	
Entrance of natural gas in the grid through the Portuguese border		Set-up of RENTELCOM			Set-up of REN Gasodutos, REN Armazenagem and REN Atlântico			Set-up of Enondas – Energia das Ondas, S.A.	
			Set-up of OMIP and certification ISO 14001		Set-up of REN – Redes Energéticas Nacionais, SGPS, REN Trading and REN Serviços				

REN's main activity is the technical management of five public service concessions in the energy sector, namely in electricity and natural gas:

Transmission of electrical energy at very high voltage REN Rede Eléctrica Nacional, S.A.	Transmission of natural gas at very high pressure REN Gasodutos, S.A.	Reception, storage and regassification of liquefied natural gas REN Atlântico, S.A.	Underground storage of natural gas REN Armazenagem, S.A.	Exploration of the offshore pilot zone Enondas, Energia das Ondas, S.A.
Technical and global management of the Portuguese electricity system (SEN) Transmission of electrical energy at very high voltage (400, 220 and 150 kV) Exploration of the Portuguese transmission grid of electrical energy and the planning, construction of maintenance of its infrastructure	Reception, transport, service systems and delivery of natural gas through a high-pressure grid Construction, maintenance, operation and exploration of all infrastructure that are part of the National Natural Gas Transmission Network and the interconnections to the networks and infrastructure to which it is connected and other facilities necessary to its operation	Reception, storage, treatment and regassification of LNG and emission of natural gas to the National Natural Gas Transmission Network, as well as LNG loading in trucks and LNG tankers Construction, maintenance, operation and exploration of the corresponding infrastructure and facilities	Reception, injection underground storage, extraction, treatment and delivery of natural gas to fill and maintain security reserves for operational and commercial purposes Construction, maintenance, operation and exploration of all the infrastructure necessary for its operation	Exploration of the offshore pilot zone to promote the scientific and technological development in electricity generation from wave energy (■ SR chapters 3.5 The Energy of future generations)
Concession period: renewed to 50 years from 2007	Concession period: 40 years starting from 2006	Concession period: 40 years starting from 2006	Concession period: 40 years starting from 2006	Concession period: 45 years starting from 2010

ENONDAS, S.A.

Arising from the national focus on renewable energy sources, the Portuguese state awarded, pursuant to paragraph 3 of the article 5 of government decree *Decreto-Lei n.º 5/2008* of 8 January, and government decree *Decreto-Lei n.º 238/2008* of 15 December, the concession to explore a pilot zone for power generation from ocean waves to ENONDAS, Energia das Ondas, S.A., a company fully owned by REN. The concession

lasts 45 years and includes the licence for the set-up of infrastructure for connection to the public electricity grid and the use of water resources in the public domain, and the supervision of the use of water resources by third parties necessary to generate power from wave energy. The concession also awards licences for the set-up and operation of the activity of electrical energy generation and its supervision.

REN's activities in the energy sector are subject to a demanding set of legal rules and regulations under the responsibility of the Department of Energy, the Energy Services Regulatory Authority and the Authority of Competition.

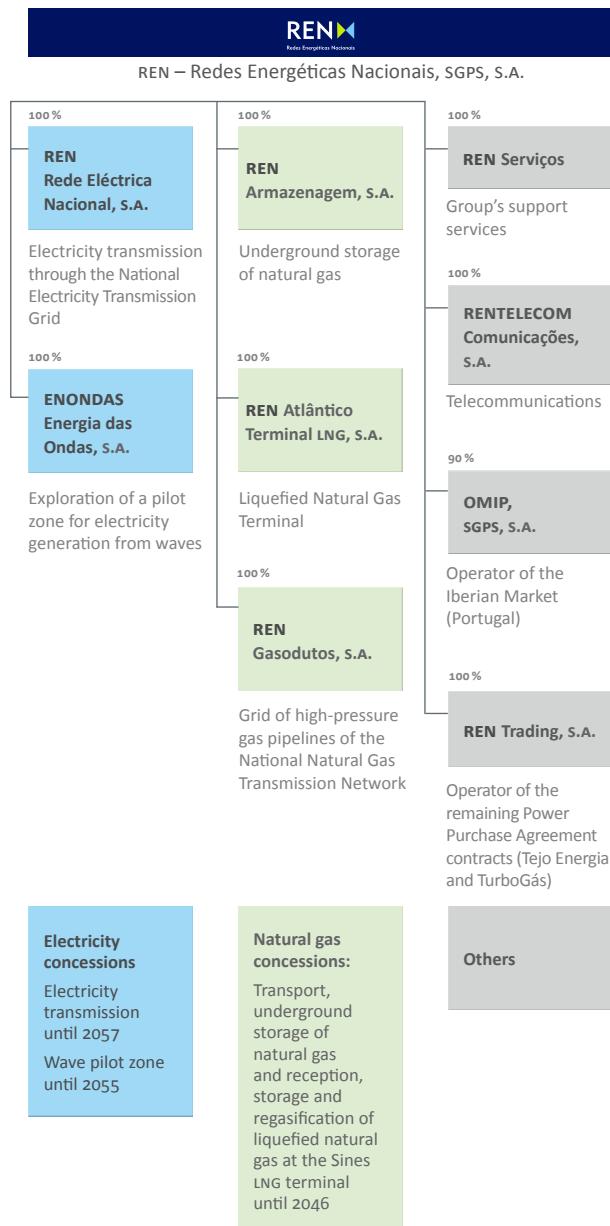
In addition to the companies that manage the public service concessions, four other companies are part of REN's corporate structure: REN Serviços, RENTELCOM, OMIP and REN Trading.

REN Serviços is a unit of shared services that supports the companies of the REN Group since January 2008.

We are also in the telecommunications business since 2002 through RENTELCOM, a company created to explore the surplus capacity of safety telecommunications networks, which are critical infrastructure to the operation of electricity and natural gas transmission systems.

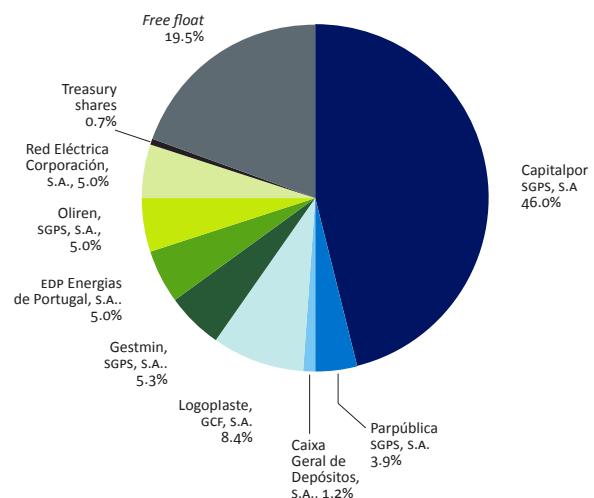
Through a 90% stake in Operador do Mercado Ibérico de Energia, S.A. (OMIP), the entity that manages the electricity derivatives market, we are present in the promotion of the electricity market in the Iberian Peninsula. In 2010, and in compliance with the international commitments made by the Portuguese state towards the reinforcement of the Iberian Market of Electricity, the OMIP SGPS was created, which now has a stake in OMIP, SA.

The mission of REN Trading is the management of Power Purchase Agreements for the standard production centres of Pego and Tapada do Outeiro that were not subject to early termination.



Shareholder Structure

MAJOR SHAREHOLDERS



31 DECEMBER 2010

	Number of shares	Ownership, %
Capitalpor SGPS, S.A.	245,645,340	46.0%
Parpública SGPS, S.A.	20,826,000	3.9%
Caixa Geral de Depósitos SGPS, S.A.	6,265,888	1.2%
Logoplaste, Gestão e Consultoria Financeira, S.A.	45,044,826	8.4%
Gestmin, SGPS, S.A.	28,146,479	5.3%
EDP – Energias de Portugal, S.A.	26,700,000	5.0%
Oliren, SGPS, S.A.	26,700,000	5.0%
Red Eléctrica Corporación, S.A.	26,700,000	5.0%
Treasury shares	3,881,374	0.7%
Free float	104,090,093	19.5%

Strategic Plan 2010-2016

As a result of the draft of the strategic plan for the 2010-2016 period, we promoted, in October and November, a cycle of meetings including all REN's employees. The goal was to promote internal debate and the share of the principles that will guide the company's activity in the next six years.

Main strategic priorities:

- focus on the Group's core activities;
- use and reinforcement of existing skills based on value creation;
- presence in some high-growth markets of the activity of energy transmission;
- reinforcement of the integration of renewable energy sources in the electricity grid;
- security of energy supply;
- integrated management of electricity and natural gas transmission networks;
- promotion of innovation.



Answer to all the
principles of GC

Mission, Vision, Values

Mission

To ensure transmission of electricity and natural gas without interruption and at the lowest cost, complying with quality and safety criteria, maintaining a balance between supply and demand in real time, safeguarding the legitimate interests of market participants and combining the roles of system and network operator.

Vision

To be one of the most efficient operators of energy transmission networks in Europe, thereby creating shareholder value within a framework of sustainable development.

Values

Guarantee of Supply

To explore and develop the activities under concession and related interconnections in order to ensure the uninterrupted supply of energy, meeting all quality criteria and creating the technical requirements for Iberian markets for electricity and natural gas.

Impartiality

To guarantee that all participants in energy markets – producers, distributors, traders and consumers – have access to networks and related infrastructure on a non-discriminatory basis and under equality of terms.

Efficiency

To strictly perform our role and to contribute, with the best use of resources, to the country's development, seeking the well-being of communities and creating value for shareholders.

Sustainability

To manage activities according to the principles of sustainable development, in its economic, social and environmental aspects, by supporting Research and Development and fulfilling the potential of our human resources, namely through technical, behavioural and ethical training.

1.2 Main events in 2010

In addition to the events mentioned in the annual report 2010, the following facts were relevant:

January	Connection of several lines to wind farms: Lomba do Vale and Terra Fria to the Frades substation, and the Alto Douro wind farm to the Valdigem substation
February	Certification in quality, environment and safety of REN Armazenagem and RENTELCOM Conduction of SEVESO audits to the facilities of REN Atlântico and REN Armazenagem
March	Use of an Emergency Restoration System (ERS) of towers for the first time to avert the fall of supports of the 220kV Carregado-Fanhões-Sacavém power line caused by an extreme weather phenomenon
April	Publication of the National Strategy for Energy 2020 (cabinet resolution <i>RCM n.º 29/2010</i> , of 15 April 2010)
May	Creation of the Strategy and New Business Unit at REN SGPS, S.A. to coordinate REN Group's strategic planning and plan new business developments
June	Entry into operation of the Armamar substation at the central zone of the Portuguese part of river Douro, thereby contributing to enhance interconnection with Spain and provide an outlet for renewable energy
July	Signing of a memorandum of understanding between REN and Galp Energia for the joint construction of four caverns for storage of natural gas Reception of REN Atlântico's 200th LNG tanker
August	Publication of the Sustainability Report 2009
October	Creation of ENONDAS, Energia das Ondas S.A., fully owned by REN SGPS, which signed a concession contract with the Portuguese state for the exploration of wave energy in a pilot zone
November	Organisation of the Investor Day, where REN presented its new Strategic Plan for the 2010-2016 period
December	Occurrence of a tornado that caused damage in infrastructure, namely on Penela-Zêzere's 220 kV line, in the council of Tomar. In spite of the fall of several towers and surrounding cables, the supply of the 60 kV distribution network was maintained

Map of the National Electricity Transmission Grid at 1 January 2011



Map of the National Natural Gas Transmission Network, Storage infrastructure and LNG terminals at 1 January 2011

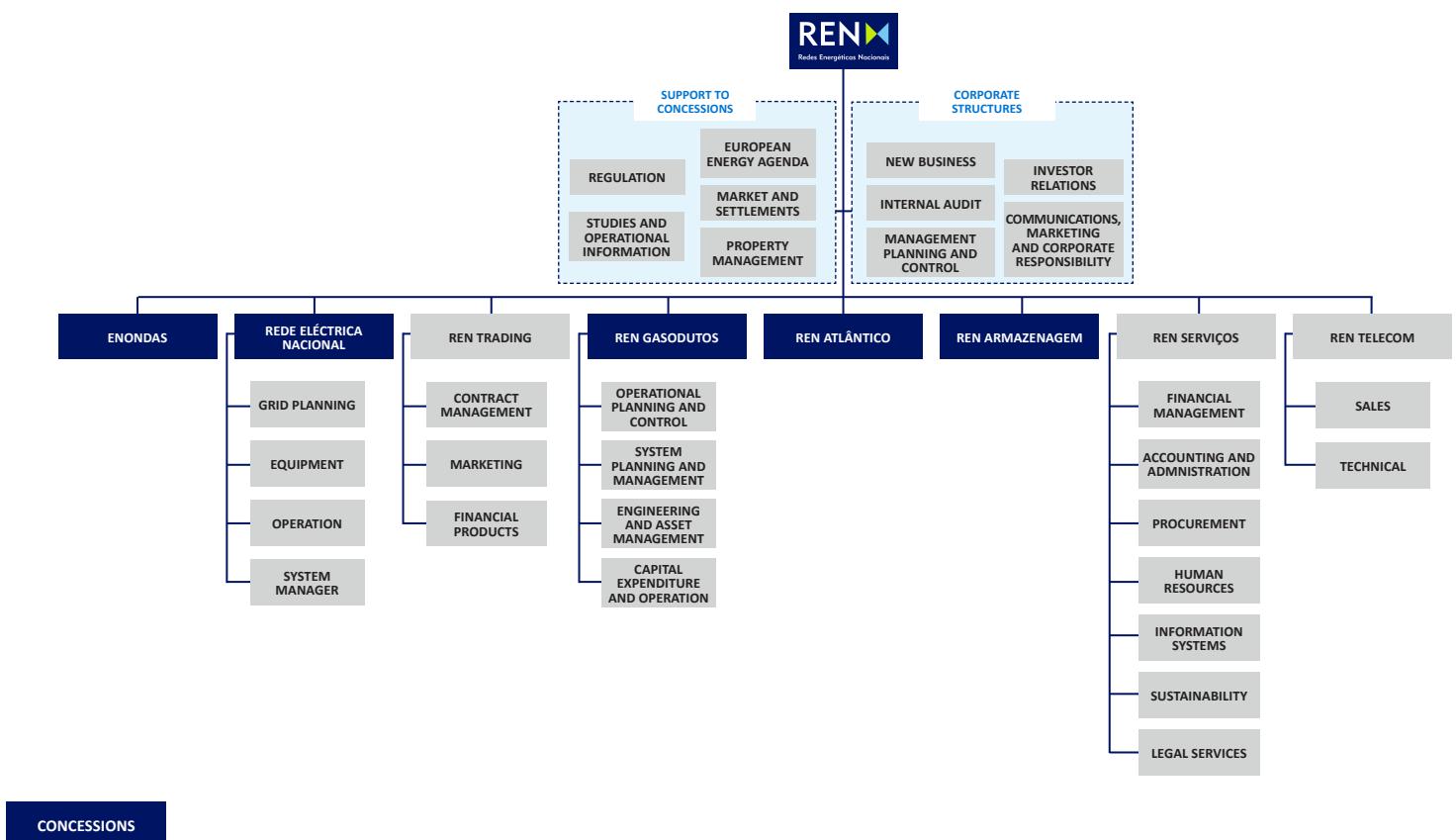


1.3 Corporate governance model

In REN's corporate governance model, the remit of the Board of Directors is the management and supervision of the company and the day-to-day management of the company is delegated to the Executive Committee. The Audit Committee is responsible for supervising and monitoring the activity, and the Statutory Auditor certifies the company's financial statements.

REN's board of director is composed of thirteen directors, of which five are executive members and the remaining three are independent.

The day-to-day management of sustainability is the remit of the Sustainability Department of REN Serviços, which must execute the strategy formulated by the Board of Directors and follow the Group's sustainable development agenda.



2. Commitment to stakeholders

2.1 Sustainability strategy

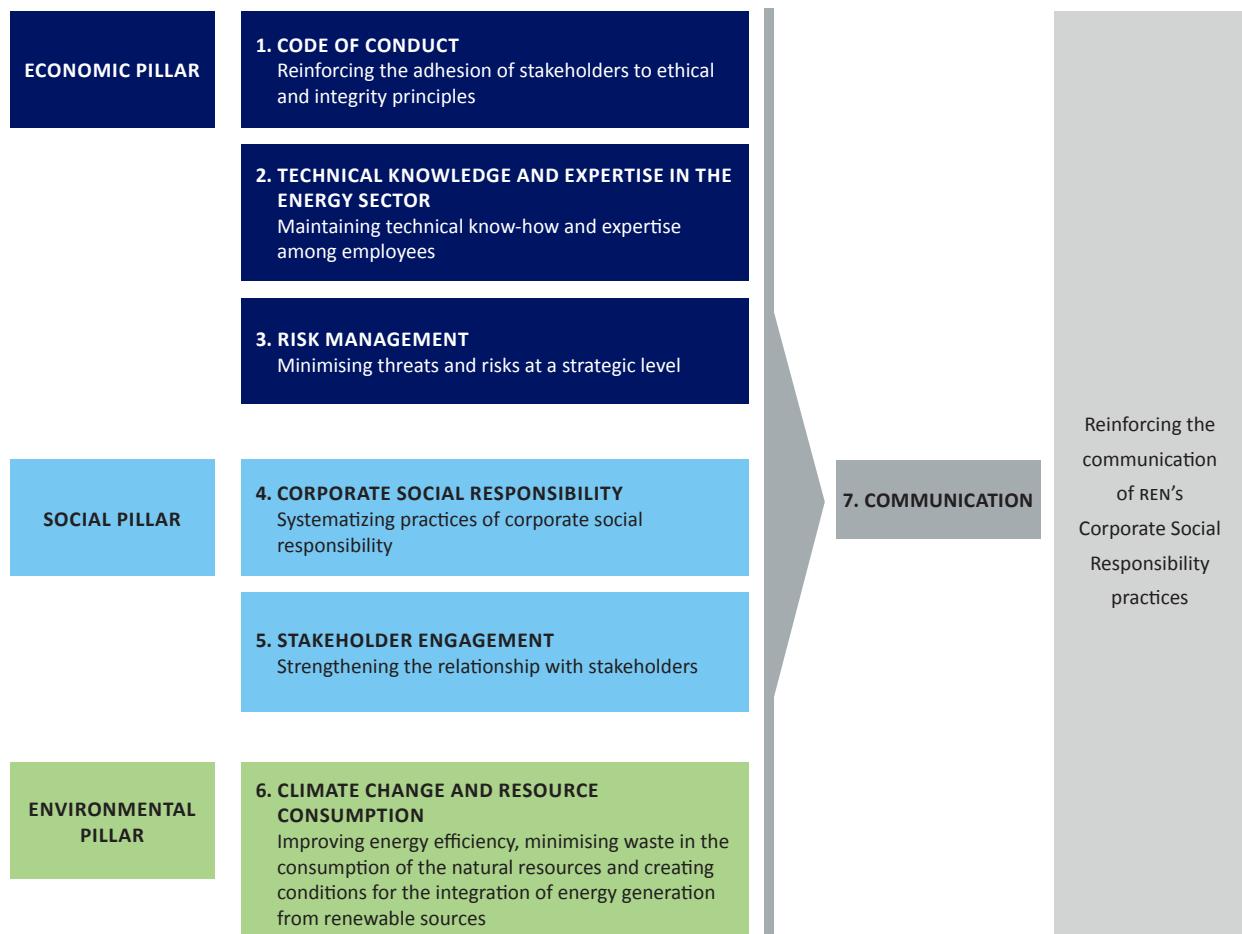
Question to Stakeholders:

Do you believe REN has a clear vision of its economic, environmental and social responsibilities?

The sustainability strategy formulated for the 2010-2012 triennium considers seven dimensions for the integration of relevant themes identified by stakeholders, as well as the main regulatory and business trends internationally.

For each of the dimensions considered, an action plan for the 2010-2012 triennium was established, shown on the chart of the section “our commitments”.

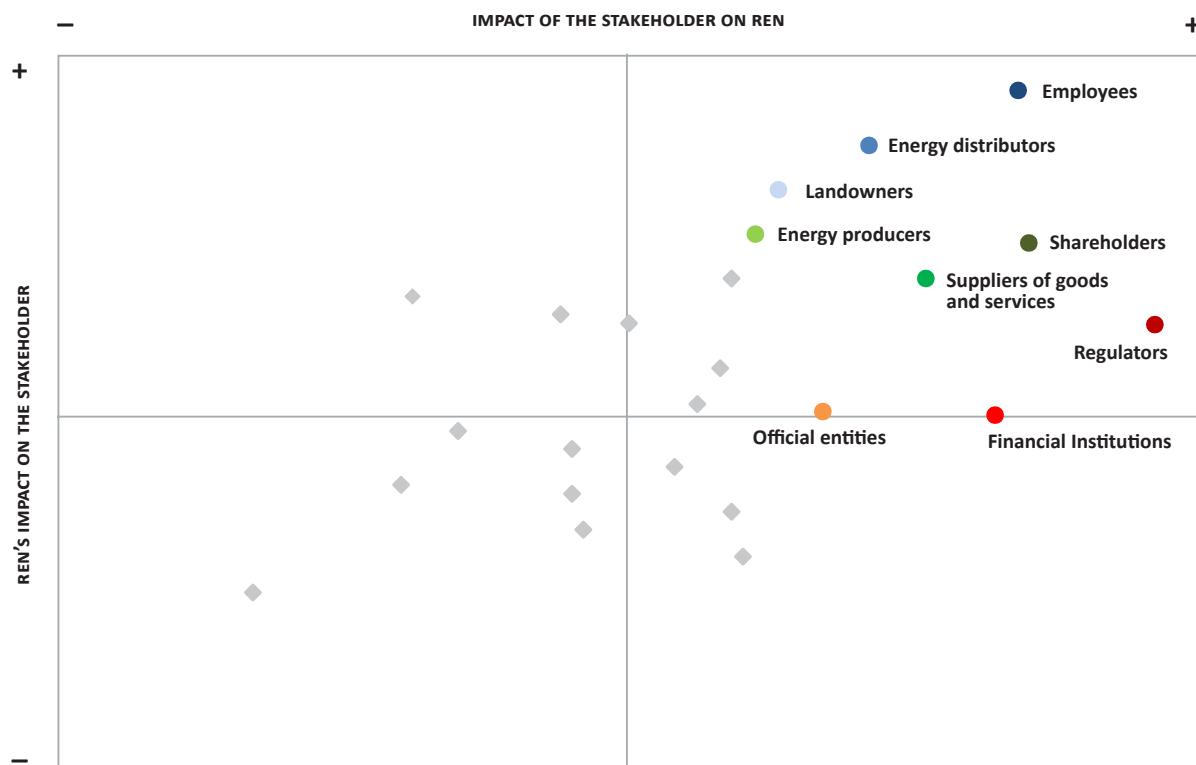
In 2011, we will re-evaluate the relevant themes to ensure the permanent adequacy of our strategy.



2.2. Stakeholder engagement

Stakeholder engagement and the identification of stakeholder expectations have always been a priority for REN. In 2009, continuing the work previously developed and given the growing importance of communication with different stakeholder groups,

we exhaustively re-assessed the engagement processes considering the principles of AA1000 APS (2008). We updated the stakeholder map and undertook a new cycle of stakeholder engagement and identification of relevant themes.

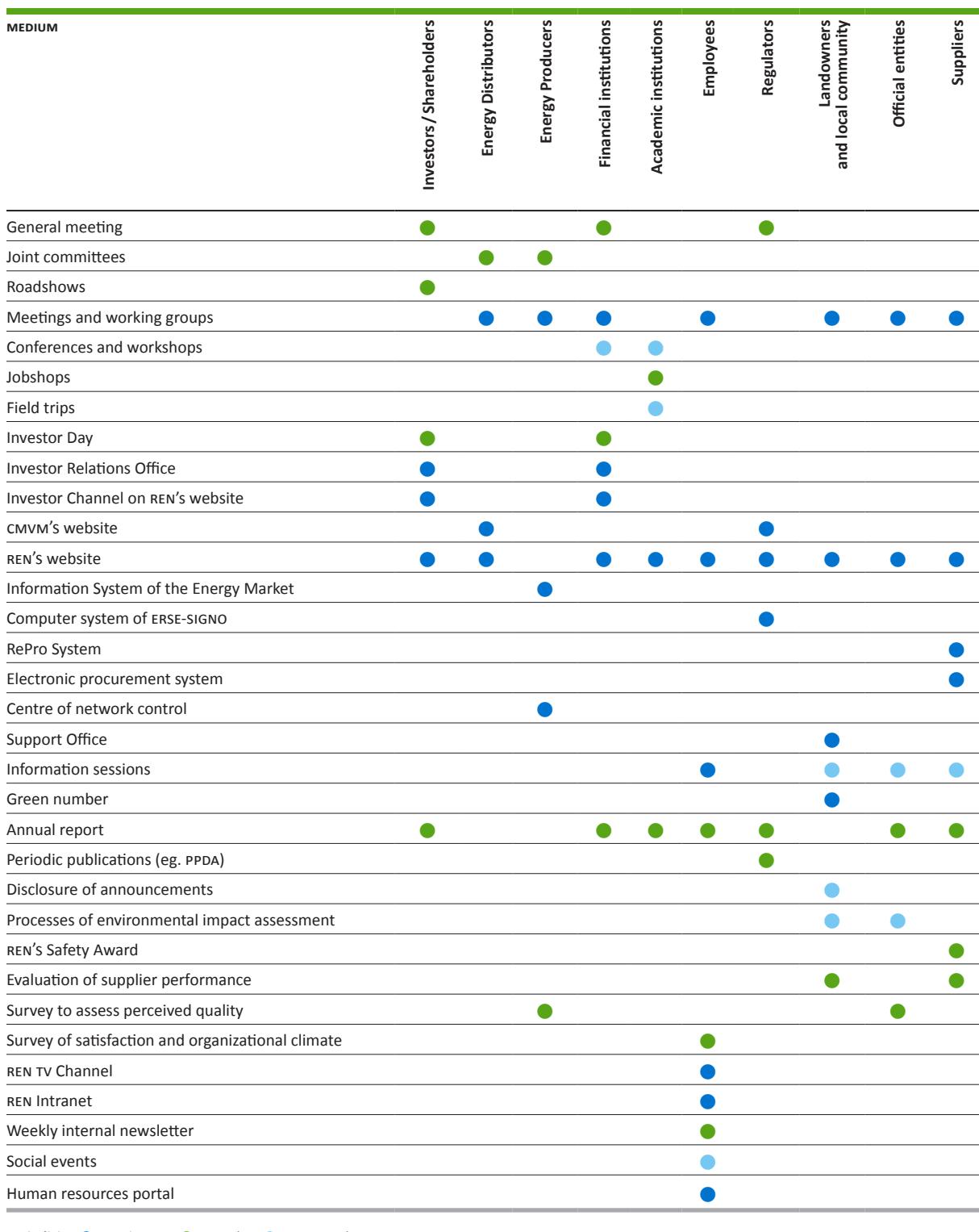


Once the most relevant stakeholders were identified, we developed a new consultation cycle with interviews, meetings and working sessions to identify their expectations and the main themes that rule their relationship with REN.

These themes, along with other current issues for the sector worldwide, are the basis of our strategy for sustainable development.



STAKEHOLDERS	EXPECTATIONS	RESPONSE	DIMENSION OF THE STRATEGY
Shareholders	Sustainability of earnings Dividends Sustained growth Increase in earnings Share price	Improvement and efficiency of management Clarity and transparency of information disclosed	3. Risk management 7. Communication
Financial institutions	Creation of business opportunities Strengthening of relationships with REN Reinforcing REN's positioning	Close relationship Availability of relevant information	5. Stakeholder engagement 7. Communication
Landowners / Local population	Impacts and constraints caused by infrastructure	Disclosure of information regarding electromagnetic fields Draft of opinions of construction feasibility Maintenance of grid corridors Testing and noise monitoring	5. Stakeholder engagement 6. Climate change and resource consumption 7. Communication
Employees	Career evolution and training plans Performance assessment Benefits awarded	Career development through promotion Career plans Continuous on-the-job training for each position	2. Technical knowledge and expertise in the energy sector
Official institutions	Use of best practices in construction Network planning with concerns related to territory planning and to the minimisation of environmental impacts	Information sessions of plans and programmes (PDIRT and ODIR) Project review Draft of technical reports and opinions	5. Stakeholder engagement 6. Climate change and resource consumption 7. Communication
Regulators	Regulatory and tariff models Tariff deviations Operational compliance Technical quality of service	Publication of monitoring reports Reports on quality of service Clarity and transparency of information disclosed	3. Risk management 5. Stakeholder engagement 7. Communication
Academic institutions	Creation of partnerships and closeness to the business environment	Establishment of R&D partnerships Integration of young trainees Sharing of know-how	2. Technical knowledge and expertise in the energy sector 5. Stakeholder engagement
Energy producers	Conditions of access and connection to the transmission network Environmental constraints and territory planning	Electricity Draft of the characterisation of RNT to access the grid and interconnections PDIRT Natural gas Publication of the programme of energy availability Adequacy of regulation Draft of the operational manual	5. Stakeholder engagement 6. Climate change and resource consumption 7. Communication
Energy distributors	Connections to the network Planning fulfilment Needs of infrastructure Development of the network, location, deadlines and contracts	Monitoring reports Reports on quality of service PDIRT Characterisation of RNT	5. Stakeholder engagement
Suppliers and Service Providers	Meeting the technical capacity and quality of product/service according to REN's requirements Competitiveness in the cost vs. service quality relationship	Publication of a ranking of quality of service Creation of conditions for market diversification Awards to best performance in safety	7. Communication



Periodicity ● Continuous ● Periodic ● Occasional

As a socially responsible company, we promote and actively participate in the debate about sustainability issues, mostly in the organisations and associations we are part of, namely:



Global Compact Network
Portugal



2.3 Risk management

In the development of the activity in each business unit, we are exposed, at all times, to a multiplicity of risk factors, both internal and external.

Risk management is part of processes and is assumed and shared by the different levels of responsibility.

STRATEGIC RISK	FINANCIAL RISK	OPERATIONAL RISK	HUMAN RESOURCES	COMPLIANCE
REGULATORY	CREDIT QUALITY	SYSTEM MANAGEMENT (INCLUDING TELEC. SAFETY)	CONTINUITY OF KNOWLEDGE/SKILLS	LAWS AND REGULATION
BUSINESS PLAN	LIQUIDITY	CAPITAL EXPENDITURE/CONSTRUCTION		CONCESSION CONTRACTS
IMAGE AND REPUTATION	INTEREST RATE	SAFETY OF ASSETS AND PEOPLE		AGREEMENTS AND INTERNATIONAL STANDARDS
INFORMATION QUALITY	ACCOUNTING / TAX	ENVIRONMENT	WORKING CLIMATE	FRAUD AND RELATED OFFENCES
		MARKET (TRADING, TELECOM, SERVICES)		

Acknowledging the need to develop a more systematic and harmonised risk management approach in the group, the Board of Directors decided to create, in 2010, a permanent consultative body to provide support on this matter – the Risk Management Committee. The more systematic approach aims mostly at:

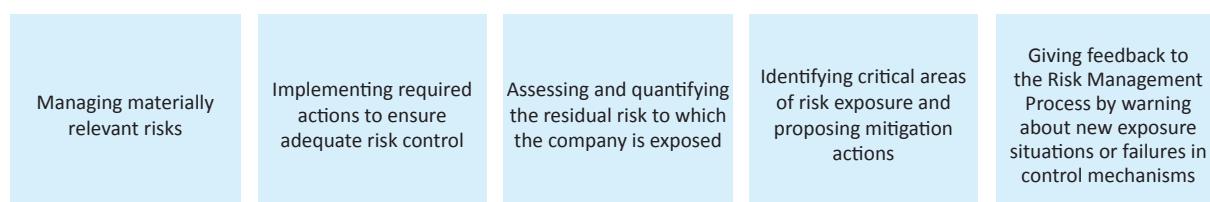
- comprehensively identifying the risks;
- standardising and systematising risks, identifying risk factors and the consequences of risk occurrence;
- identifying and defining risk owners and people responsible for their control;

- prioritizing risks to be addressed;
- aligning tolerable risk with the Group's strategy;
- improving the quality of decisions;
- reducing losses and operational surprises;
- identifying and managing multiple and overarching risks;
- seizing opportunities;
- improving resource allocation.

REMIT OF THE RISK MANAGEMENT COMMITTEE



ROLES OF RISK OWNERS



Internal audit

Internal control is made at all levels of responsibility. The adequacy of internal control is verified by the Audit Committee and operationally by the Internal Audit Office.

The Audit Committee possesses authority in internal control and is subject to the duties contained in both the law and REN's articles of association. It is mainly responsible for:

- supervising the management of the company and monitoring compliance with law and the Company Contract;
- auditing the accuracy of financial statements prepared by the Board of Directors and overseeing its review;
- overseeing the process of preparation and disclosure of financial information;
- proposing to the General Meeting the appointment of the statutory auditor;
- convening the General Meeting when the chairman of the corresponding board does not do it.

The Internal Audit Office (GAI) was set up in May 2009, whose mission is ensuring control of management risks, risks of internal control systems and governance risks of the Group through objective, independent and systematic monitoring. Its remit includes the following:

- revisão das políticas de risco de gestão e de controlo interno em vigor;
- review of current policies of risk management and internal control;

- assessment of the degree of implementation of internal control;
- conduction of financial, IT, operational and management audits in several areas of the group;
- control of the implementation of corrective measures through monitoring reports;
- support of top management in the definition and/or implementation of control and governance measures.

The Activity Plan of the Internal Audit Office for 2010, approved by the Audit Committee, defined and characterised the audits to be performed. These audits covered several activities attempting, in each one, to cover the areas considered relevant for the Group, namely:

- internal control
- delegation of skills
- procurement
- efficient use of resources

During audits, particular attention was given to the assessment of internal control systems, to compliance with implemented procedures, to the efficient use of resources, to the effective control of processes, to the separation of roles and to risk assessment and mitigation. This way, the activity was mostly guided to the control of risks of processes and to operational efficiency, always taking into account the need to create information with added value.

In 2011, audit procedures will be maintained and for the future Activity Plan of the Internal Audit Office, we highlight the following goals:



2.4 Code of conduct

REN's Code of Conduct sets out the ethical principles and the standards of conduct that guide the internal and external relationships of all employees, regardless of their remit and responsibilities.

So that all employees know these principles and reflect on their relationship with suppliers, official entities and other stakeholder groups, we launched in 2010 a plan to reinforce the disclosure of the Code of Conduct through internal communication channels, such as the Intranet, the REN Notícias news bulletin and REN TV.

Complementarily, there are Codes of Conduct for specific functions, which are provided for in the enforced regulation of the energy sector.

REN defined and implemented other specific policies, such as the Social Responsibility Policy, where we assume a set of commitments that reinforce, among other principles, the United Nations Global Compact principles, subscribed by REN since 2005.

- Equal treatment and non discrimination
- Diligence, efficiency and responsibility
- Reserve and discretion
- Professional relationships
- Duty of loyalty, independence and responsibility
- Compliance with legislation
- Conflict of interests
- Relationship with third parties
- Relationship with shareholders
- Relationship with regulators and supervisory bodies
- Relationship with suppliers
- Relationship with the media
- Relationship between employees and professional improvement
- Commitment of compliance
- Application and monitoring
- Disclosure

REN's Code of Conduct

Equality of treatment and non-discrimination



2.5 Our partners

Suppliers, contractors and service providers

Since a large part of REN's activity is supported by external hiring, suppliers, service providers and contractors are a relevant stakeholder group that has a significant role in the reliability and quality of services provided. In 2010, these partners made close to 4,296 thousand of hours worked for REN, dedicated to construction, project services and other services provided in our facilities.

Aware of the importance of their contribution to the company's results, we sought to establish with these stakeholders a relationship that induces the improvement of their performance, based on processes of close cooperation and communication.

In this context, we promote, since 2007, technical sessions on safety and award performance prizes, an initiative intended to distinguish and encourage good performance in safety and health during the construction of lines and substations of the electricity transmission grid.

On the other hand, we have a system of qualification and assessment of suppliers with demanding requirements, which includes technical and service quality features, as well as aspects related to social responsibility, safety at work and environmental management.

Landowners

The good relationship with the owners of the land crossed by our networks of gas and electricity is not only a commitment of our social responsibility policy but also a constant concern in the company's activity, mostly in the construction phase and, subsequently, in the maintenance of the infrastructure.

PROJECT: PROPERTY MANAGEMENT

Goal: To develop a platform guided to the property management of electrical lines and gas pipelines, in the construction phase, as well as projects that imply the acquisition of land for the set-up of new infrastructure, which guarantees the activities of management and organisation arising from exchange of information between REN and suppliers of external services, thereby ensuring necessary workflows and the record of validations/approvals.

During construction, this stakeholder group has a significant influence on the completion deadlines of investment projects. In the next phase, which is the operation of the infrastructure, the relationship with the

owners is very important again under the conservation activities of electrical lines and gas pipelines. Permanent dialogue with landowners is needed to adjust soil use in properties with the safety standards imposed by enforced legislation.

The establishment of property managements is regulated by specific legislation, under which we contact affected landowners, as well as other interested parties, to agree and establish formal compensation mechanisms for the use of their properties. The use consists of the establishment of administrative property or the acquisition of properties, in the case of construction or expansion of electric substations or gas stations.

In 2010, close to 4,200 landowners were contacted, from which 3,200 for the management of the electricity grid and the remaining of the natural gas network. Close to 50 properties were acquired for the set-up of electric infrastructure and close to 20 for the set-up of natural gas infrastructure. At 31 December 2010, the database of landowners related to our infrastructure had close to 44,000 records for the electricity grid and 17,000 records for the natural gas network, which shows the importance of this stakeholder group for REN.

In the most complicated situations of establishment of properties, other mechanisms contained in legislation are used, namely in the intimation process (electrical lines) and the request for the support of public authorities for work advances (gas pipelines). In 2010, REN had to use these mechanisms only 30 times in electrical lines, or close to 1% of cases, and twice in the natural gas network, or close to 0.5%. This result, which has been achieved in several years, is an indicator of the effort we make to reconcile the set-up and operation of infrastructure with the legitimate interests of affected people.

Direct communication with affected landowners aims at clarifying and sharing relevant information on infrastructure to be built, the rights and duties of landowners regarding the set-up of public infrastructure, the losses for its properties and the compensation and alternatives to improve the compatibility of the operation of infrastructure with other types of operation of properties. For the negotiation of properties and land acquisition, besides employees directly related to this area, we use service providers that represent the company when contacting landowners.

Since it is a critical area as REN's image is at stake, qualified suppliers for this activity are closely followed by REN employees, who assume all formal communications. Service providers related to the establishment of properties of electrical lines are bound to comply with a code of ethics that regulates its relationship with REN and landowners.

In addition, meetings with local authorities are promoted in the project phase to exchange information on planned works for the region, so that entities may inform the population.

2.6 Human capital

Question to Stakeholders:

Do you believe REN is a good company to work for?

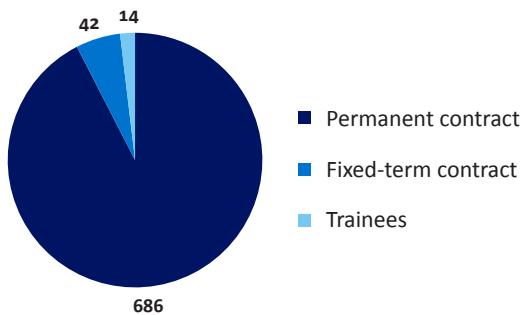
The commitment of our team to sustainable development translates into the implementation of policies, management systems and activities guided to increased satisfaction and internal motivation to reach a high-return development and performance.

REN's human resources policy favours training, ethics, development of potential and motivation by promoting flexibility, fostering merit, skills, participation and commitment and promoting focus on the company, which is completed by social benefits in the fields of study (including advanced training), health and social assistance.

This year, there was a 0.5% fall in the number of employees compared to 2009, regardless of the continuation of staff renewal. There were 63 departures and 48 admissions.

At 31 December, 94% of REN's 728 employees had permanent contracts.

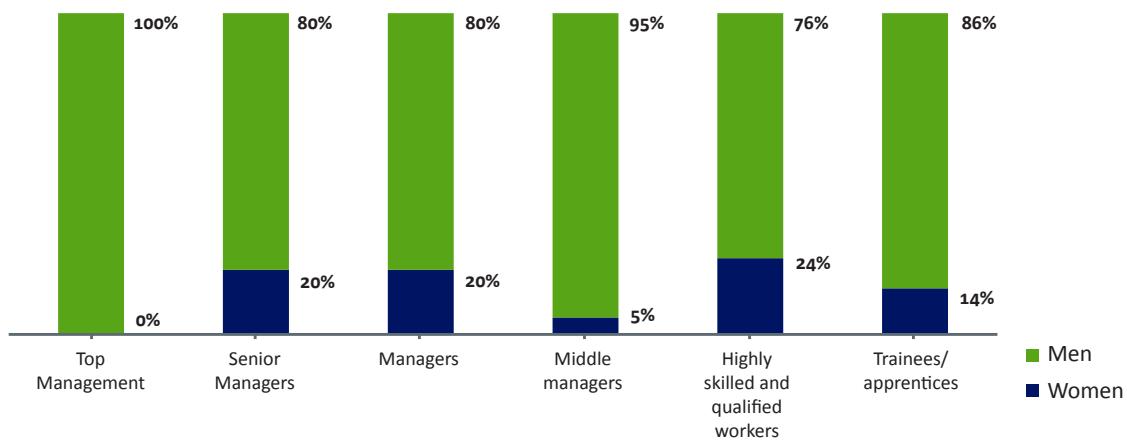
TYPE OF CONTRACT



In the last three years, the breakdown of employees by geographical region has remained constant, with approximately 70% of employees in the Lisbon area, and the remaining in the North/Centre area (22%) and in the South area (8%).

In 2010, there was a change in the breakdown of employees by professional category due to the standardisation of professional categories in the sectors of electricity and natural gas. The breakdown of employees by category is, as a result, significantly different than the one presented in 2009.

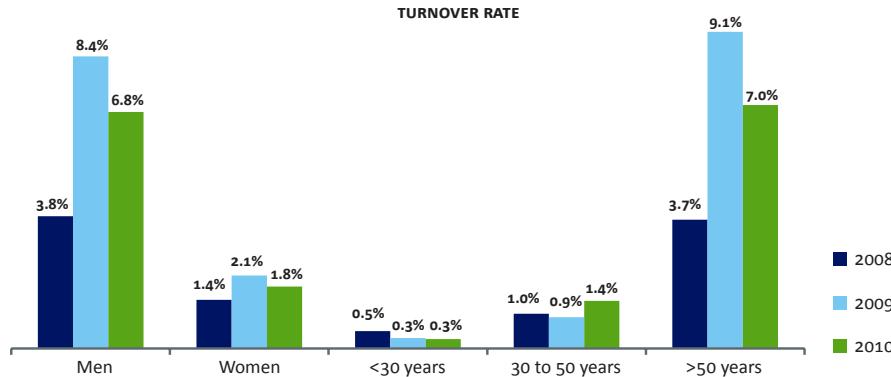
BREAKDOWN OF EMPLOYEES BY GENDER IN EACH PROFESSIONAL CATEGORY



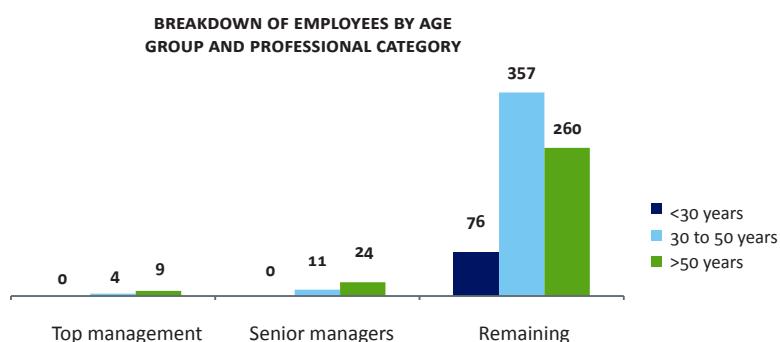
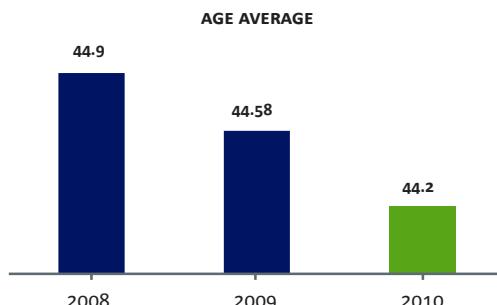
In 2010, the programme for staff adjustment and manager rejuvenation was completed, which led to 40 pre-retirements. This programme was started in 2008 and was performed in a trustful environment. In the

next five years, close to 12% of REN's employees are expected to leave due to retirement. In the next ten years, this number should rise to 36%.

When compared to the previous year, the number of departures went down by 20%, which led to a decrease in the overall turnover rate from 11% in 2009 to 8.7% in 2010.



As in previous years, the age structure of employees had a slight rejuvenation, with average age decreasing to 44.17 years. The predominant age group is the one from 30 to 50 years, with close to 51% of employees.



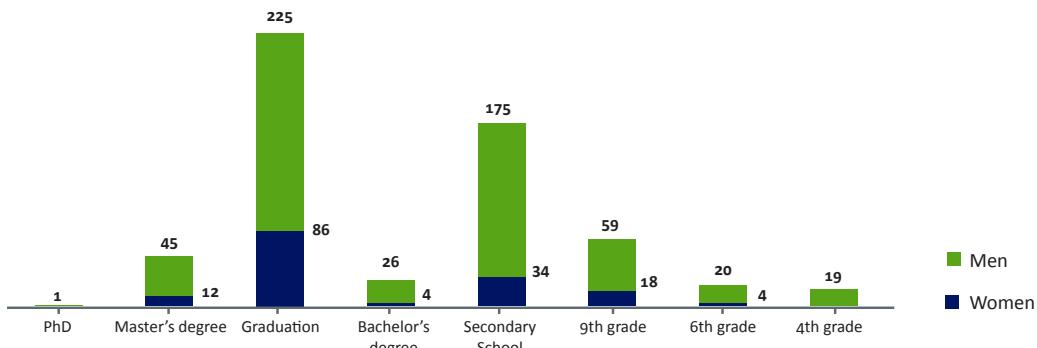
Development and personal evolution

To ensure the fulfilment of our mission, which is focused on technological areas, we require highly qualified staff, which makes the Group's human resources policy very demanding. This policy is guided towards the upgrade

and motivation of employees, along with an increasingly higher level of satisfaction.

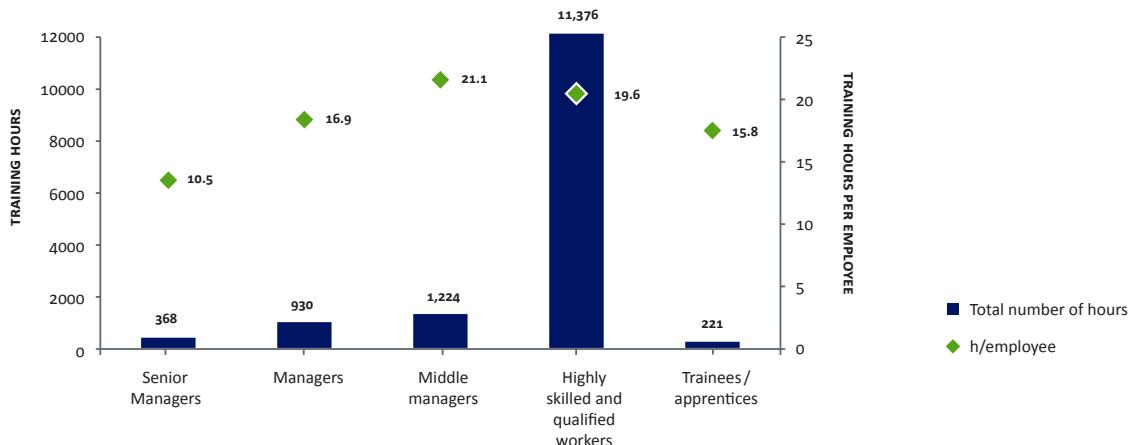
Our team is composed of 55% of employees with higher education qualifications, which reflects a 5% increase compared to 2009 and reinforces the trend of previous years.

ACADEMIC QUALIFICATIONS



In 2010, training sessions reached 14,118 hours, which contributed to the promotion of professional development and personal accomplishment. In spite of

the decrease of 18% in the number of training hours, the number of participants increased by 21% to 2,442 compared to the previous year.



During 2010, all REN's employees participated in training sessions, which translates into a participation rate of 100%.



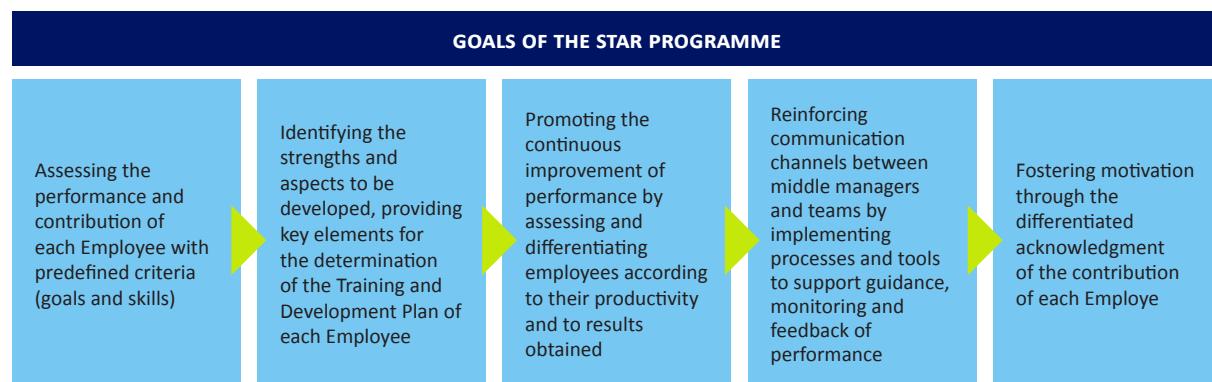
In addition to external training, we promoted 33 training courses with internal resources, we awarded eight financial grants to external training and, for the third

year running, we joined the *Novas Oportunidades – Aprender Compensa* initiative, with eight employees signed up.

Acknowledging performance

Following the commitment we assumed in 2009, with the launch of the Eficiência A+ project, to adopt new processes and policies of human resources management, we implemented, in 2010, the STAR

programme, the new tool of Performance Management of REN's Employees. The system arises from the integrative policy of Human Resources and covers all REN's areas.



The STAR programme is composed of three stages, which take place in two annual cycles: definition of goals, interim evaluation and final evaluation. In March 2011, the first cycle of application to the STAR programme will be completed, which corresponds to the performance evaluation of 2010.

The impacts of the STAR programme are:

- supporting the preparation of the Training and Development Plan of each employee;

- identifying the potential of each employee by supporting decisions on career and promotions;
- supporting decisions concerning salary increases;
- supporting decisions on the award of annual bonuses and their differentiation.

However, the application of these measures depends not only on the final assessment of the Employee's performance but also on the results achieved by the Department, the Branch, the Business Units and REN.

Compensation and Benefits

Currently, there are distinct realities associated with contracts established under the Collective Work Agreement (ACT in Portuguese) and the Individual Work Contract (CIT in Portuguese). In both situations, we

attribute a set of benefits to employees with Permanent contract (QP in Portuguese) and Fixed-term contract (CT in Portuguese), illustrated as follows:

BENEFITS	REN–Eléctrica ACT link		REN Gasodutos/Atlântico/Armazenagem CIT link		REN Serviços/Trading/SGPS CIT link	
	QP	CT	QP	CT	QP	CT
1. Work accident insurance	●	●	●	●	●	●
2. Personal accident insurance	●		●	●		
3. Health plan	●	●	●	●	●	●
4. Life insurance			●		● ⁽¹⁾	
5. Pension fund	●					
6. Electricity at lower prices	●					
7. Summer camps	●		●		●	

⁽¹⁾ It does not cover all employees.

In 2010, the benefit of summer camp was extended to employees of Permanent Contract and Individual Work Contract.

Since 2009, all Contracts of Employment, including Fixed-term contracts, assumed the designation of Individual Work Contracts, in accordance with law *Lei 7/2009*.

Communication and internal satisfaction



Internal cohesion, by sharing the mission, vision and values, has strategic importance for REN.

Acknowledging the importance of the welcoming moment of new employees for their future integration and the creation of internal cohesion, we implemented, in 2010, the VIVA programme, in which all employees who joined REN that year participated. This programme includes a set of actions to be implemented in the entire company, with the maximum duration of three months, to support and ease the quick integration of new employees in their position and at REN.

WELCOMING	INTEGRATION *
Employee's first day at REN	First three months
Welcome email	Training/information sessions on Business Units and REN's core tools and trips to facilities.
Welcome meeting with the Human Resources Department (delivery of the welcome kit)	Breakfast with the Chief Executive Officer (for permanent employees)
Welcome lunch with the middle manager	

* The integration sessions are organised for groups every three months and may include Employees who have been at REN for a while but did not have the opportunity to participate in the VIVA programme.

The VIVA programme was, without a doubt, an advantage in my integration in the REN Group, since it provided me interaction and contact with the new employees in a relaxed and casual environment and at the same time allowed me to get to know in detail each one of the Group's business activities. Overall, it was a very good initiative that contributed to welcome in a fun and assertive way those who, like me, chose REN to give a new course to their career.

Ricardo Loureiro
REN Trading, Sales

Participation in the VIVA programme allowed me to accelerate my integration process in REN's team and gave me the chance to know REN's Mission and Goals as well as its values and ethical principles. This programme was also an excellent opportunity to know better the Group's business activities, visit the places where they are developed and increase my network of internal contacts.

Fátima Soares
REN SGPS, Internal Audit Office

Also in the area of internal communication, the POP – Personal Opinion Programme was also important. Launched in June 2010, this programme provides the opportunity to all employees to express their opinion on several subjects about the company and aimed at:

- preparing the General Satisfaction Index of REN's employees;
- diagnosing REN's strengths and weaknesses through employees' opinion on a set of organisational aspects;
- analysing, in accordance with chosen segmentation, which are the groups that have a more favourable opinion and a less favourable opinion;
- drafting a brief set of recommendations that allow the increase of motivation and the overall satisfaction of employees, thereby reinforcing the development of REN's human capital.

The surveys were mostly filled up online, reaching a participation rate of 81.7%, which is a representative result.

1. Compensation and Benefits	5. Procedures and Rules	9. Commitment
2. Training and Development	6. Communication	10. Strategy/Mission and Values
3. Performance Management	7. Leadership	11. REN's Organisational Set-up
4. Teamwork and Cooperation	8. Infrastructure and Working Conditions	



77.9% of participants are happy to work at REN

REN 2010 ROADSHOW

"Information is knowledge" was the motto of the encounters we organised with all employees in October and November, which were aimed at presenting the drivers of REN's Strategic Plan for 2010-2016 and the findings of the POP programme with the respective Action Plan.

We consider these initiatives are important because "an organisation today cannot live without exchanging ideas" that "promote an overall vision", according to our Chairman.

Throughout the year, we maintained active internal communication with disclosure of information about the Group through the publication of a weekly news bulletin called REN Notícia@s and the constant update of Intr@REN and REN TV.

On 17 and 18 June, we gathered 100 managers of the Group in the REN 2010 Encounter – People in Network, under the motto "Teamwork/Network". This Encounter was an opportunity for employees to get together, meet new co-workers and work as a team, in a cheerful mood.



It was with great pleasure that I closely followed every edition of REN Notícias, as a result I congratulate the team that was engaged every week in its production, now that we have reached the 100th Edition.

REN Notícias has an extremely relevant role in the disclosure of relevant themes for REN and all that worked here, thereby fostering, at the same time, their interaction and integration, representing a medium where everyone can see themselves and to which everyone should contribute.

Within a strong policy of internal communication, which we will always try to follow, it becomes possible to develop a vision where people participate together and get involved in changing processes, stimulating the sense of belonging and commitment in all employees.

This way, REN Notícias will be increasingly the evidence of the culture of a business community, which we intend to build and strengthen.

This 100th Edition also represents the end of a cycle, which could not go unnoticed. First of all, for acknowledging the excellent work that the Sustainability Department developed with great dedication and involvement, improving at every new



Rui Cartaxo

edition and also because it represents the transfer of Internal Communication to the restructured Marketing and Corporate Communications Office.

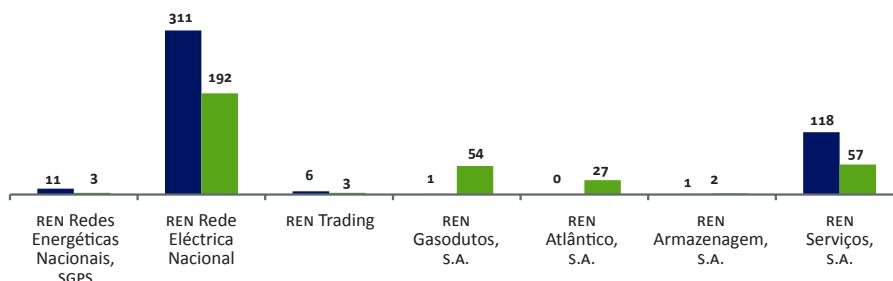
To All, my sincere Congratulations!

In 2010, we surveyed our employees on their opinion about the publication of REN Notícias. From gathered opinions, 99% considers its existence to be important.



Concerning dialogue and internal communication, good relationships with the Workforce Committee proceeded, which regularly convenes with the Executive Committee to expose and analyse concerns

and answers to questions made. On the other hand, regular meetings were held with unions, which account for close to 46% of employees, following initiatives of the company or requests from the unions.



■ Number of employees under the Collective Work Agreement (ACT)

■ Number of unionized employees

Health and Safety

We are committed to comply with the company's safety policy, preventing, by all means at our reach, the occurrence of serious accidents, work related accidents and occupational diseases. Ensuring that incidents and accidents involving employees or constructors and service providers are effectively solved and that its causes are investigated to prevent them from happening again is essential for the fulfilment of our mission.

Quality, Environment and Safety Policy Statement

In the fulfillment of its mission as a public service in the Portuguese energy sector, REN is committed to defending and promoting the principles of sustainable development and environmental protection, safety and health at work.

REN's Board of Directors is committed to adopting an ethical, socially responsible business model and seeks to give balanced consideration to economic, social and environmental perspectives in making decisions.

On the basis of these guidelines within the scope of its quality, innovation, environment, safety and occupational health management systems, the Board of Directors undertakes:

- ① To ensure compliance with legislation, regulations and requirements applicable to its activities and with others to which it subscribes on a voluntary basis
- ② To guarantee that relevant aspects of quality, environmental protection, safety and occupational health management systems are fully integrated
- ③ To develop and maintain quality, innovation, environment, safety and occupational health management systems, to set improvement goals and interim targets in these areas, to evaluate their performance and to take corrective action whenever necessary to improve the system's efficacy and to take the necessary corrective action whenever improvements are identified
- ④ To minimise the environmental impacts of its activities by promoting rational use of natural resources, prevention of pollution and support for the development of renewable energy sources
- ⑤ To use all means at its disposal to prevent serious accidents involving hazardous substances and occupational accidents and diseases in order to ensure and maintain high levels of safety and health at work and compatible health and safety conditions
- ⑥ To promote the vocational development of its employees and guarantee that their skills are appropriate to the jobs that they perform
- ⑦ To promote research, development and innovation in the field of the services it provides, through the exchange of experiences and communication within the company and in partnership with other entities
- ⑧ To involve not only all the Group's employees but also suppliers and service providers that supply products and services to different activities and initiatives in respect for the above principles and commitments

Lisbon, May 13th 2009

The Board of Directors



STRUCTURE AND RESPONSIBILITIES OF REN'S SAFETY MANAGEMENT

Functional set-up of the Integrated System of Quality, Environment and Safety Management	Organisational Set-up Sustainability Department and Management Systems	Committee of Safety and Health at Work
Executive Committee and Board of Directors Board of Corporate Responsibility EQS board Process Managers People in charge of Safety	Human Resources Department SVRH Other departments of Group companies Employees and their representatives	Representatives of workers Representatives of the company
<ul style="list-style-type: none"> • Setting goals and overall targets for each Company and the Group • Analysing the results from audits to SIGQAS and the performance of the management systems • Approving audit plans • Assessing the results of work accident reports and cooperating in the analysis of accidents and in the investigation of causes • Ensuring compliance with the legal requirements of safety • Promoting the identification and assessment of risks from activities • Ensuring the adequacy and update of Internal Emergency Plans 	<ul style="list-style-type: none"> • Coordinating the implementation of the integrated system • Ensuring relationships with official entities • Ensuring the draft and update of support documents on safety • Identify the vulnerabilities of energy transmission systems • Developing scenarios and streamlining procedures for emergency response and risk management • Conducting exercises and simulations • Coordinating the analysis and investigation of work accidents • Promoting medical exams of Occupational Health and conducting awareness campaigns on risk prevention • Making technical visits to facilities and positions • Coordinating and drafting the annual training plan 	<ul style="list-style-type: none"> • Drafting its operating system • Recommending necessary actions to develop employees' sensitivity to safety and health at work • Reviewing procedures to improve working conditions • Reviewing proposals for safety procedures • Proposing actions leading to good training of employees on safety and health at work • Reviewing statistics of work accidents • Making suggestions on equipment for individual and collective protection • Requesting and reviewing suggestions of employees on safety and health at work • Analysing reports on work accidents <p>Existing committees account for 78% of our employees</p>

Health

All employees are covered by a health insurance plan and we provide, besides what is set in legislation, a service of occupational health that allows medical exams and additional medical tests. In 2010, we opened two clinics, one in Sacavém and another one in Pombal, besides those already operating in the head office and in the facilities of Vermoim, Bucelas and Sines.

As in 2009, there were no occupational diseases in 2010.

Number of diagnostic tests (blood tests)	686
Number of medical exams	591
Number of nursing acts	2.046

We joined the Code of Conduct Companies and HIV in 2008, committing to non-discrimination of carriers of the human immunodeficiency virus (HIV), to provide information on HIV infection and to ease access to medical care and social protection in conditions of equality.



Safety

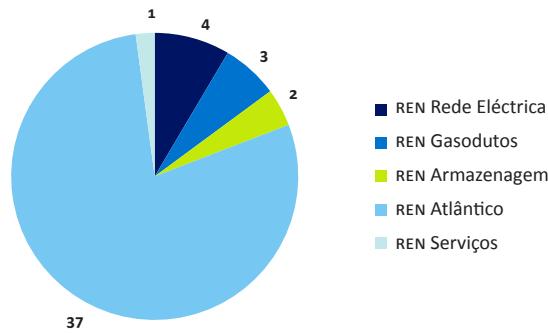
Activities related to the development and operation of energy transport network and the storage infrastructure of natural gas, mainly the ones concerning the construction or maintenance or repairing interventions, are exposed to several risks.

Aware of this fact, we have promoted and implemented all measures at our reach to minimise risks and mitigate possible consequences of predictable incidents.

In addition to attention complying with legal and standard requirements, we seek to apply the best practices in the sector of energy transport, adopting the following practices:

- conduction of audits and verification inspections and monitoring of working conditions;
- development of internal documentation of reference to guarantee compliance with safety requirements;
- organisation of on-the-job training sessions aimed at specific activities and additional training on activities, such as first aid – basic life support and fire fighting;
- availability of equipment of individual protection suited for each activity;
- assurance/supervision to ensure the good use of equipment through supervision at construction sites and coordination;
- supervision and coordination of safety at construction sites;
- conduction of simulations and exercises.

NUMBER OF SIMULATIONS AND EXERCISES



With these initiatives, we aim at covering not only employees but also constructors and the external service providers of companies of the Group. During 2010, 47 simulations and exercises were made.

Acknowledging the importance of involvement and training of external entities in the safety area, besides participation in simulations and exercises, we submitted 92 contractors to training and awareness sessions concerning safety in 2010.

The Sines LNG terminal is one of the infrastructures in Portugal prepared for a Safe Shutdown Earthquake (SSE) – an earthquake likely to happen every 10,000 years. In a situation of total destruction, the terminal has the capacity to empty the tanks in a safety shutdown. If there is an Operating Bases Earthquake (OBE), likely to happen every 500 years, the terminal will continue

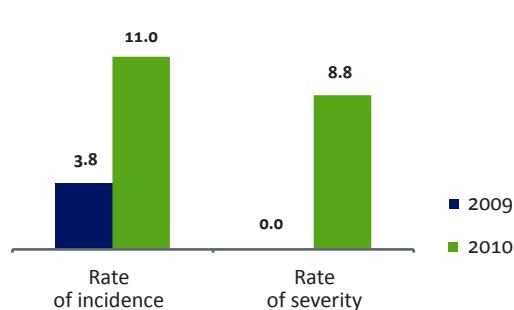
to operate. To control the risks and constraints related to public safety and Terminal safety, a System of Safety, Detection and Signalling was set up, to complement the one already operating. This system has active and passive safety measures for the identification and control of abnormal situations, such as leaks of LNG and gas, fires or intrusion by non-authorised people.

REN supported, in late 2009, the creation, in Lisbon, of a Centre for Public-Private Safety Policies of the United Nations Interregional Crime and Justice Research Institute (UNICRI). Following this

cooperation, REN's representative and member of REN's Advisory Committee was invited to make a lecture on those policies at SICUREZZA 2010, which took place in Milan.

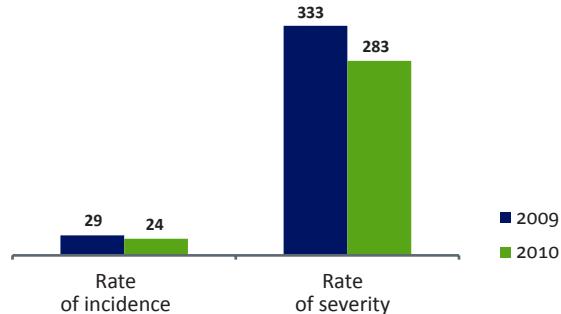
COMPANIES	Average number of employees	Number of hours worked	Number of accidents			Days lost
			Fatal	Not fatal		
REN Eléctrica	349	593,921	0	5		10
REN Serviços	175	292,065	0	3		1
REN Gasodutos	123	217,612	0	0		0
REN Atlântico	43	83,250	0	0		0
REN Armazenagem	11	19,483	0	0		0
REN Trading	8	11,682	0	0		0
REN SGPS	21	32,980	0	0		0
ENONDAS	1	338	0	0		0
Service providers and contractors	1,884	4,296,144	1	46		1,214

RATE OF INCIDENCE AND SEVERITY OF THE REN GROUP



Close to 45% of contractors of REN Eléctrica have safety management systems certified in accordance with OHSAS 18001/NP 4397 standards, which is an indicator of the policy of increasing demand of REN in this

RATE OF INCIDENCE AND SEVERITY OF SERVICE PROVIDERS



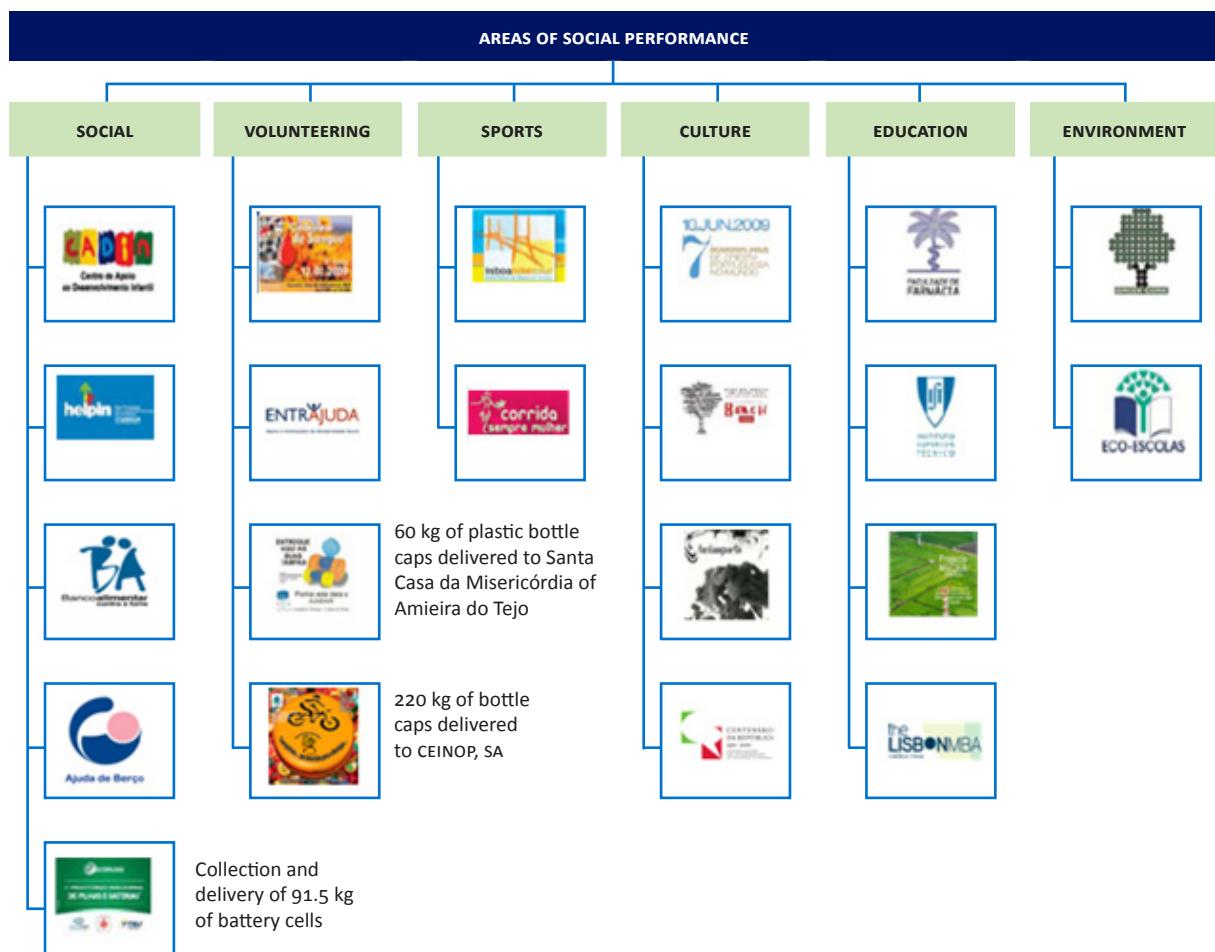
domain and the social responsibility of our partners. In recent years, the absenteeism rate of the Group decreased, reaching 2.2% in 2010.

	2008	2009	2010
Absenteeism rate	2.8%	2.3%	2.2%

2.7 Support to the community

Question to Stakeholders:

Do you believe REN's activity has an overall positive contribution to society?



Society and Philanthropy

REN's contribution to the community is considerable for the direct benefit of our activities as well as for the good corporate citizenship we show in several domains. In 2010, we supported initiatives of several municipalities and parish councils, as well as students' associations and amateur sports clubs. The focus on young people led REN to sponsor several initiatives of child development centres and youth centres located in several regions of Portugal.

Education

For the third year running, REN financially supported the Portuguese Physics Society in the MEDEA project, which This encourages secondary school students to write a paper on very low frequency electromagnetic fields close to school, at home and in the neighbourhood of lines of electrical energy transmission, and to search for scientifically reliable information about possible effects of these fields on human health.

In 2010, the first place was awarded ex æquo to Escola Secundária José Estevão de Aveiro, to *Os Radiantes* from Agrupamento de Escolas José Sanches de Alcains

and to *Os Hertzianos* from Escola Secundária D. Manuel I de Beja. *Os LSD* and *Os Voltímetro* from Escola Secundária de Lousada, and *Onda Ocidental* from Escola 2,3/S Pe. Maurício de Freitas, EBS das Flores, Azores, received honourable mentions. Overall, 110 students from 20 Portuguese secondary schools participated.

REN also contributed to initiatives of the Law Faculty and the Economics Faculty of *Universidade do Porto*, of the Faculty of Science and Technology of *Universidade Nova de Lisboa*, of *Instituto Superior Técnico*, of *Universidade Técnica de Lisboa* and of *Universidade de Coimbra*.

REN supports the Católica TOP+ programme since 2010 and The Lisbon MBA programme since 2008.

Culture

We maintain a supporting policy of cultural initiatives. Overall, we support over 50 cultural entities, including several associations with educational, social and recreational purposes.

In recent years, we sponsored hundreds of cultural initiatives, ranging from cinema to photography, documentary to animation, and theatre to music.

These initiatives include the *Music Days in Belém*, *Celebrações do Centenário da República*, *Fantasporto*, the election of the 7 Natural Wonders, and the year-end concert of *Orquestra Sinfónica Juvenil* from *Círculo Musical Português*. REN also has the status of founding member of the Serralves Foundation and is a patron of *Centro Nacional de Cultura*.

Community

We reaffirmed our support to various social institutions, such as the *Centro de Apoio ao Desenvolvimento Infantil* (CADIN), an institution with an important role in the support of children and youth with special needs. Aware of the relevance of our cooperation, we extended our help to *Banco Alimentar contra a Fome* and *Ajuda de Berço*. We supported *União Humanitária dos Doentes com Cancro* and *Abraço*. In our help to Haiti, we contributed to the initiatives of AMI, *Cáritas Portuguesa*, *Médicos do Mundo* and *Centro Español Lisboa*.

“Bring a toy, a garment... something that helps to create smiles” was the motto for the Christmas campaign launched by REN’s employees jointly with ENTRAJUDA, which brought joy to associations of children solidarity, namely the *Associação Criança e Vida*, in Porto, and the *Centro Social do Bairro 6 de Maio*, in Amadora.

Under a policy of closeness to Communities, we maintained an attitude of open doors, which is shown in the several visits to our premises not only of schools and universities but also of official entities, such as the Portuguese Environment Agency, which visited, in 2010, the construction works at the Batalha-Lavos line at 400 kv.



In the context of relationships with schools, we promoted, jointly with Bio3 and the Liga para a Proteção da Natureza, two sessions aimed at middle school students on the protection of birdlife under Greenfest.

Following this openness and the need to increasingly foster knowledge of REN and the integration and engagement of employees, the first of many visits to the company's facilities, namely to the substation of Lagoaça, was organised.

In 2010, we maintained the Cooperation Protocol between REN Armazenagem, the parish council of Carriço and the municipality of Pombal. With this

protocol, the parish council of Carriço benefited from REN's support in the social projects of Carriço, such as funding the construction of a social kitchen operating in *Parque Social do Carriço*, located in Silveirinha Pequena.

In addition to this Protocol, we continued to support social and associative groups, such as the *Associação Encontra Aventura* that supports the Scouts Group 891 of Carriço, the *Associação Cultural Recreativa Desportiva da Freguesia do Carriço* in the promotion of the Christmas party for the children of the parish council of Carriço and the *Grupo Desportivo Recreativo Vieirinhos* in the organisation of the xxiv Contest of Sea Sportfishing.

Sports

In line with the support policy to sport initiatives with a social component, we supported, in 2010, the Paralympic athlete Diana Guimarães, world champion in 50 metres breaststroke swimming. We sponsored the Open'10 Internacional de Natação Adaptada, organised by Anddemot – Associação Nacional de Desporto para Deficientes Motores, and the equestrian athlete Sara Duarte from the Academia Equestre João Cardiga.

Under an internal social responsibility perspective and to encourage our employees to practice sports, we continued to support the triathlete Carlos Gomes, the Freeride athlete Fernando Torrão and other initiatives, such as the MBT ride from Sines to Sagres. The employees also had the opportunity to participate in the Bike Tour initiative in Lisbon and Porto and in the Sempre Mulher race, events sponsored by REN.

Communication with society

Since 2008, we maintain the Webcegonhas project, in association with the Público newspaper, with the Foundation for National Scientific Computing (FCCN) and Bio3. This initiative has contributed to environmental awareness, while also disclosing the initiatives we develop for the preservation of the white stork.

This initiative led to another project, *Condoninho da Renata*, a 3D animation series intended to raise the awareness among young people for environmental issues, energy management and understanding about REN's activities, thereby attempting to contribute to demystifying some of the prejudices surrounding high voltage lines. This series was jointly developed with QUERCUS and had the support of ERSE.

Owners of crucial infrastructure for Portugal, REN always tries to be available to enlighten the community, which is why we participated again, in 2010, in the Porto Alive

programme of the Porto Canal broadcaster, where every week representatives of REN approached several themes related to the company's environmental concerns, with the purpose of raising the audience's awareness to these issues and to clarify their doubts on energy transmission. REN also participated in a television report of the RTP1's *Linha da Frente* programme, dedicated to renewable energy.

Transparent dialogue and communication with people who live near the infrastructure is also one of our main concerns, reflected in the contacts we maintain with municipalities, parliamentary groups, media and neighbourhood associations. REN was ranked as the ninth most transparent company in the Engagement Rating 2010, a study that assesses the transparency of the 25 biggest Portuguese and Spanish companies when communicating their sustainability performance.

Impact management

Fulfilling our mission of public service, we assume a diverse set of responsibilities not only concerning the guarantee and security of supply but also concerning the preservation of the surrounding environment and the well-being of citizens, mostly those who are directly affected by network infrastructure.

Under the assessment and management of environmental impacts in 2010, we highlight the participation in the National Conference of Assessment of Impacts 2010 (CNAI), of which we were one of the main sponsors. In addition to the presence of speakers of the company in several sessions, we organised a technical visit to the construction site of the Armamar-Lagoaça line at 400 kv and to the Armamar substation.

Public participation in the processes of Environmental Impact Assessment, Strategic Environmental Assessment

and the Electricity Transmission Grid Development and Investment Plan (PDIRET in Portuguese) allowed the improvement of the audience's perception of the strategic importance of the projects included in the grid development plan and disclosed the main environmental impacts of the electricity transmission infrastructure to a wider audience. In addition to being a social obligation of companies, training and raising the audience's awareness on the environmental impacts of energy transmission grid contributed, at a medium and short term to the existence of stakeholders more informed and aware.

For relationship with the community, REN participated in the panel discussion named *Social innovation. What companies are doing to be relevant in their communities*, which was organised in the Greenfest.

REN Award

In 2010, we organised another edition of the REN Award to promote cooperation between universities and the Industry and to praise engineering projects related to our sector. The REN Award 2009 was awarded to the following master's theses written by student finalists or recent graduates of courses in Electrical Engineering, Mechanics and Chemistry of Portuguese universities:

1st prize: Implementations according to Standard CEI 61850 of Automation Functions Specified by PETRI Networks – Application to Substations of Energy Transmission – Ricardo Emanuel Caldeira Cartaxo – IST

2nd prize: Wind Power Forecasting Based on Prospection Models of Historical Similarity – Tiago Filipe Ferreira dos Santos – FEUP

3rd prize: Design, Control, Simulation and Energy Evaluation of a DC Offshore Wind Park – André Madeira Marques – IST

In 2010, we launched a new challenge with the REN Award 2010, to be awarded in the first half of 2011.

PRÉMIO REN 2009

O Prémio REN 2009 destina-se a distinguir as melhores teses de mestrado realizadas por finalistas nos recentes concursos de cotação de Engenharia Electrotécnica, Mecânica e Química das Universidades Portuguesas (concluídas e classificadas nos anos letivos de 2007/2008 e 2008/2009).

O Regulamento do Prémio REN 2009 pode ser consultado ou obtido nos Secretariados das Faculdades ou na REN e em www.ren.pt

PRÉMIOS A ATRIBUIR

1.º Classificado	12 500 €
2.º Classificado	6 500 €
3.º Classificado	3 500 €

Apresentação dos trabalhos até 2010.01.15

3. Commitment to the future

3.1 Our challenges

Electricity

Portugal has an ambitious programme under way to develop renewable energy sources in the subsector of electricity, whose success will depend on the easiness and flexibility of its integration in public grids for electricity transmission and distribution.

The fulfilment of the national strategy for RES, drafted in the PNAER, the national plan of action of renewable energies to 2020, is essential for the fulfilment of the goals set out in the 20-20-20 strategy of the European Union.

Portugal has been able to implement several projects of RES, such as onshore wind energy and large hydro, which are only possible due to interaction between several agents of the sector, where REN has a relevant role. We have created conditions that allow the integration of this energy source, reinforcing the grid and adopting new methods of system management, incorporating and compensating the self-intermittency and the technical demands that the RES add to the system, with highlight to the wind energy. All this activity led to the acquisition and reinforcement of critical skills to strengthen our technical knowledge in innovation areas, which are essential for the execution of our business strategy.

The expansion needs of our network are identified in close cooperation with EDP – Distribuição de Energia, the concession holder of the high voltage transmission grid, with our Spanish peer Red Eléctrica de España and with the promoters of producing centres. The final goal is streamlining the investments in order to maximise the benefits of the National Electricity System in the medium- and long-term.

In recent years, we drafted several planning studies that ensured the necessary technical conditions for the progressive and successful integration of the high amounts of renewable production in SEN, particularly of wind energy. In 2010, new wind turbines were connected to the grid, accounting for close to 350 MW of power.

To continue this trend, we are currently developing a set of initiatives, such as:

NATIONAL STRATEGY FOR ENERGY 2020

In 2010, the Government defined the strategic guidelines for the energy sector by drafting the National Strategy for Energy (ENE 2020), which was approved by cabinet resolution *RCM n.º 29/2010*, of 15 April 2010.

The decisions of energy policy taken on in ENE 2020 are a growth factor of the economy, promotion of competition in the energy markets, value creation and qualified labour in sectors with high technological incorporation. The purpose is to keep Portugal in the technological frontier of renewable energy, boosting the production and export of solutions with high-added value, which decrease energy dependence on other countries and reduce greenhouse gas emissions.

ENE 2020 is based on five main axes, translating into a vision, a focused set of priorities and measures to execute them.

- AXIS 1** – Agenda for competitiveness, growth and energy and financial independence
- AXIS 2** – Focus on renewable energy sources
- AXIS 3** – Promotion of energy efficiency
- AXIS 4** – Guarantee of security of supply
- AXIS 5** – Economic and environmental sustainability

- integration, until 2020, of close to 6800 MW of wind production onshore, ensuring that Portugal is one of the EU countries with largest installed wind power/peak load ratio (approximately 70%) in the ENTSO-E;
- accommodation of new amounts of hydro production (5000 MW until 2020, of which close to 4000 MW have reversibility features);
- integration until 2020 of 1500 MW of solar production;
- construction of an electric platform at medium voltage to be connected to the substation of EDP Distribuição, of Vieira de Leiria, in order to collect and use electricity generation from wave energy in the pilot zone, in the sea corridor of S. Pedro de Moel;
- R&D projects to identify technical solutions that adapt to the intermittent nature of renewable production, including wind energy, among which estimated amounts of adequate operating reserve and the use, in case of reduced consumption, of the pumping power of hydroelectric plants to accommodate surplus production.

At REN, we try to follow the development trends of technology that uses RES so, as early as possible, we may assess alternatives and find the solutions that better serve the national goals of facilitating the connection of this type of production system, thereby ensuring the economic and environmental rationale of connections to new projects. We are certain we are giving our best contribution to the

integration of RES by reducing consumption of fossil fuel and, consequently, of CO₂ emissions and by stimulating the free exchange of energy among agents. We have a crucial role in the dynamics of the market and in the contribution (in the portion relating to grids) to make energy prices economically sustainable and competitive in the medium- and long-term.

Natural gas

One of our biggest challenges is the supply of new combined-cycle stations and the estimated increase of natural gas consumption expected for the next years. Ensuring the existence of infrastructure capacity and the sustained and efficient development of the network, along with the insufficient capacity of the Sines Terminal for forecast needs, were the main motivations for the execution of the Expansion Project of the Sines Terminal (PETS).

For 2012, we expect the completion of the new storage tank of Liquefied Natural Gas (LNG) with the inclusion of the new low-pressure pumps and the improvement of related systems, allowing an overall storage capacity of 390,000 m³ of LNG and a maximum emission capacity of at least 1,350,000 m³(n)/h.

In 2008, the International Public Tender to choose a contractor for the implementation of the Expansion Project of the Sines Terminal (PETS) was launched. The expansion of the terminal was not just the construction of a new tank. At the same time, construction works of a new sea water-intake system, pumping and rejection of seawater, were held, with the construction of a new structure that abstracts, treats, filters and pumps the seawater that is taken by the pipes up to vaporizers – and from another structure to discharge seawater. The construction of a new substation to ensure feeding to the new low and high-pressure pumps and other equipment in the new tank was also part of this project.

The project also includes the construction of the third bay of supply of tank trucks, which had been planned and prepared in the previous construction project of the terminal. Currently, the system of automatic supply of tank trucks supplies, on average, 3 thousand trucks a year that carry liquefied natural gas to the most remote areas of Portugal, where the network of natural gas still does not reach.

Currently, the LNG Terminal has three main functions:



Construction of the third tank – Sines Terminal

- Reception and unload of LNG tankers with capacities between 40,000 and 215,000 m³, with an unloading capacity of 10,000 m³/h;
- Storage with useful capacity of 240,000 m³;
- Regasification of liquefied natural gas and issue of natural gas (NG) to the Transmission Pipeline (maximal admissible operating pressure 84 Barg). Issue of base of 675,000 m³(n)/h and an emission peak of 900,000 m³(n)/h.

3.2 Integration of markets

Iberian Electricity Market (MIBEL)

As the European Transmission System Operators, we have been performing an important and coherent role aimed at the effective implementation of MIBEL and its subsequent integration in the European Electricity Market, the need to accommodate increasingly higher amounts of renewable production with intermittent characteristics and the obligation to promote the development of grids for the efficiency and streamlining of resources. The maximum pillar is adequate reliability and high standards of continuity and service quality.

We create conditions in the infrastructure for the operation of MIBEL with the effective reinforcement of our interconnection capacity, thereby simultaneously ensuring a minimum of operating restrictions. To this end, our capital expenditure plan includes a set of projects aimed to reach 3000 MW of interconnection capacity in the medium term.

The implementation of MIBEL ensures:

- the existence of competition between the agents that operate in the electric energy markets, with positive impacts in society thanks to the consequent price reduction;
- the complementarity and mutual increment in security of supply of the Portuguese and Spanish electrical systems;
- the streamlining of natural resources use and the promotion of energy efficiency in the Iberian Peninsula;
- the alignment with the European strategy, whose ultimate goal is the creation of a single internal electricity market.

Under the creation of conditions for the functioning of MIBEL developed in recent years, the Lagoaça substation (Douro Internacional) at 400 kV came into operation in 2010 and the new interconnection line at 400 kV, Lagoaça Aldeadávila, was set up, which, along with the refurbishment made in the 220 kV grid of the National Electricity Transmission Grid completed in the region in 2009, allowed an increase in the exchange capacity with Spain ranging from 200 to 400 MW. The construction programme of new facilities and interconnection lines proceeded, besides the internal reinforcements developed in conjunction with our Spanish peer, to achieve an interconnection capacity of approximately 25% of the peak of annual consumption in the medium term. Capacity must reach close to 3000 MW, in both the Portugal/Spain direction and the Spain/Portugal direction.

Outflowing renewable energy and reinforcing interconnections between Portugal and Spain are the main goals of the new Armamar-Lagoaça line at 400kV, under operation since 15 November 2010. With 87.2 km of length, this new line reinforced the transportation capacity between the strongly producing zone of Douro Internacional and the coast, thereby ensuring transport of most of the energy produced in hydroelectric power plants, located in the basin of river Douro, and the outflow of new wind production from the region of Trás-os-Montes. The new infrastructure significantly reinforced the capacity of energy exchange between the Portuguese and Spanish networks in the existing interconnections in the zone of Douro Internacional to ensure the necessary and adequate conditions to the good functioning of MIBEL. The new Armamar-Lagoaça line at 400kV has a multi-goal nature in the reinforcement of the transmission network.

Iberian Gas Market (MIBGÁS)

The integration of the Portuguese and Spanish systems of the natural gas sector benefits consumers from both countries and leads to the harmonisation of applicable rules and the mutual recognition of agents. MIBGÁS aims at:

- increasing security of supply through the integration of markets and the coordination of both systems of the natural gas sector and reinforcement of interconnections;
- fostering competition, due to the growth of the size of the market and the increase in the number of players;
- simplifying and harmonising the regulatory framework of both countries;
- encouraging the efficiency of regulated and liberalised activities, as well as market transparency.

The activities related to the creation of MIBGÁS have proceeded in the definition of base principles of the harmonisation of rules by regulators in Portugal (ERSE) and in Spain (CNE) and the technical cooperation between Technical Managers of System of both countries, REN and Enagás, respectively. In addition, Regulators have been developing the model of third party access to infrastructure for natural gas as well as the definition of the retribution methodology of

regulated activities and the calculation of access prices to infrastructure, under the enlarged area of the future MIBGÁS.

In 2010, the preliminary study and analysis of feasibility of a new interconnection between the gas systems of Portugal and Spain, between Mangualde and Zamora, were performed, aiming to increase security of supply and ease the access to the Iberian market through the availability of capacity to transport and store natural gas. The conclusions of this work resulted in a joint position of the two operators of the energy transport system for

the future development of this interconnection, which must be reflected on the final versions of planning in the energy sector of both countries, currently in preparation and discussion, namely the Plan for the Development and Investment in the National Transmission Network, Storage infrastructure and LNG terminals (PDIR) for the period between 2011 and 2014, in Portugal, which must be submitted to the energy department, the DGEG, until the end of March 2011, and *Planificación del Sector Energético 2012-2020*, in Spain, whose final approval and publication are expected for July 2011.

3.3 Security, reliability, quality and guarantee of supply

Question to Stakeholders:

Do you believe REN provides high-quality service, ensuring security, reliability and guarantee of supply?

National Electricity Transmission Grid (RNT)

Under our mission, we continued to develop expansion and streamlining studies of RNT, which set out the most favourable medium- and long-term strategy to ensure reliability and high standards of continuity and service quality.

We highlight the study aimed at correcting and stabilising the voltage levels provided by RNT, in some grid nodes, which is necessary to guarantee the compensation of the potency factor given the use of the grid by subsidised regime producers (PRE in Portuguese).

REN has developed studies on the expansion of the RNT not only to successfully accommodate and integrate the growing production of wind energy but also the significant increase in hydroelectric production forecast under the National Plan for Dams and the potency reinforcement of existing plants. Regarding the potency reinforcement of existing plants, we highlight the high concentration of potency in the region of high and medium Tâmega, of close to 1500 MW, distributed by the plants of Daivões, Alto Tâmega and Gouvães, and the reinforcement of the plants of the Cávado basin, totalling approximately 1300 MW.

The injection of reactive power in the National Electricity Transmission Grid (RNT) is directly related to the enforced tariff regulation. It is REN's role to promote close cooperation with ERSE, the regulator of the sector, to streamline the electrical system and to guarantee a grid structure with enough flexibility to compensate and manage the power factor, while maintaining reliability levels and high service quality standards.

Of this work, we highlight our effort to integrate the plant of Venda Nova III, located in the basin of Cávado, which includes two reversible groups (2x365 MW of production capacity) with innovative technological features (asynchronous machines with variable speed), allowing the adjustment of pumping potency of groups between 70 and 100% of installed potency. Conventional plants only have capacity to pump the maximum installed potency. Besides giving more flexibility to the RNT operation, this factor streamlines the accommodation of wind production in the void.

To integrate the power reinforcements of the hydro plants of Picote and Bemposta and the growth of the amounts of renewable production, mainly wind energy, we continued, in 2010, the reshuffle of the RNT in the area of Armamar (new substation) and Lagoaça, which included the set-up of a number of new circuits at 400

kV in the region and the execution of some interventions at 220 kV.

To establish a ring at 220 kV complementary to the Douro route between Pocinho and Valdigem, which reinforces the integration capacity of renewable energy sources and the interconnection capacity with Spain, the construction of a new line between Macedo de Cavaleiros and Valpaços will be started, where a new substation 220/60 kV will be built. This substation will provide the area of Chaves and neighbouring municipalities with better quality of supply. In a second

phase, the line between Valpaços and Vila Pouca de Aguiar will be built to close the ring.

The construction of a set of new substations to reinforce electrical supply to several regions of the country, like the substations of Valpaços, Feira and Fafe, will also be started. The substation of Fafe will allow the shutdown of the current temporary premises 150/60 kV of Guimarães, which is surrounded by the natural and gradual expansion of the city of Guimarães, thereby inducing significant environmental benefits.

SERVICE QUALITY

Global rate of availability of line circuits (%)	97.49
Global rate of availability of transformers and self-transformers (%)	98.66
Combined rate of availability (%)	97.78
Equivalent interruption time (EIT) (min)	1.15
Energy not supplied (ENS) (MWh)	114.9

More information on our performance in service quality may be read in the annual reports published in our website.

In 2010, there was a significant enlargement of REN's customer relationship and contract obligations, under the electrical sector, as a result of the publication of new legislation and regulation. Therefore, this relationship was extended for the first time to agents of the electrical sector that were out of our commercial sphere, namely the following:

- Cogenerators, under the creation by REN of the Entity for Origin Guarantees, an entity that issues origin guarantees, following the publication of government decree *Decreto-Lei n.º 23/2010*, of 25 March, changed by law *Lei n.º 19/2010*, of 23 August, which set out the legal and remuneration regime applicable to electric and mechanical energy and useful heat produced in cogeneration;
- Subsidised regime producers, under the agreement of connection to RNT and the management of delivery and reception of reactive energy to the National Electricity Transmission Grid, fulfilling the publication of the new Regulation of the Transmission Grid, through ministerial regulation *Portaria n.º 596/2010*, of 30 July;

- Interruptible clients, under service contracting of active management of consumption, following the publication of ministerial regulation *Portaria n.º 592/2010*, of 29 July, completed by ministerial regulations *Portaria n.º 1308/2010* and *Portaria n.º 1309/2010*, both from 23 December.

At the same time, we proceeded the continuous improvement effort of the service provided to the agents of MIBEL, throughout 2010, and strengthened the use of the system of Service Desk of market, leading to a more efficient and auditable management of sales relationship with market agents and giving access to detailed information to characterise our sales relationship.

In 2010, new tools started being used, aiming at the improvement of both sales relationships and responsiveness to agents.

Direct access by Web-services was provided, being increasingly used by market agents, thereby contributing to increase transparency and ease clarifications. This tool proved important in the context of the settlement of services of the market deviation system, made by REN.

National Natural Gas Transmission Network (RNTGN)

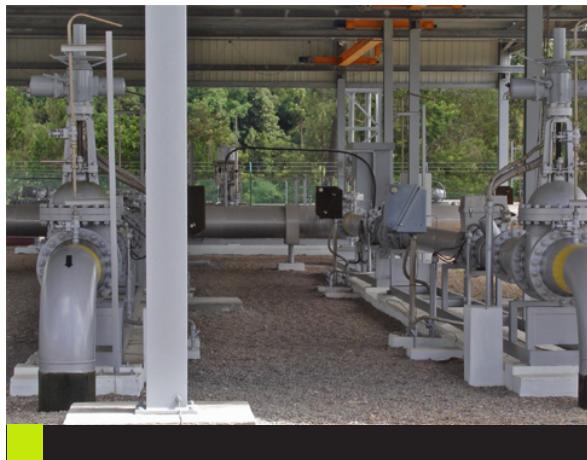
In 2010, we continued the implementation of the Plan for the Development and Investment in the National Transmission Network, Storage infrastructure and LNG terminals (PDIR), which corresponds to the three gas years comprised between 1 July 2008 and 30 June 2011. This plan includes a set of projects of development and expansion of the RNTGN, investments of internal reinforcement and refurbishment and connection to clients.

Under projects for connection to clients in 2010, the new branch came into operation, allowing the supply of the new combined-cycle gas turbine at Pego for Tejo Energia (5.27 km), in the Abrantes region. Supply to EDP-Gás for Vila Nova de Cerveira was started, and the new branch that supplies Galp-Petrogal, in the Porto Refinery in Leça da Palmeira (23.21 km), was completed.

Under the Plan for Development and Investment in the Network, we undertook the following projects:

Development of the RNTGN:

- we completed the works of capacity expansion, and improvement of functionalities of the Plants of Valongo and Chaparral, and started the expansion of the capacity of Plant of Pombal;
- we completed the projects of Basic Engineering and Licencing (including the study of environmental framework and risk analysis) for the set-up of the new Compression Station of Carregado;
- we completed the Base and Detail Project of the Mangualde-Celorico-Guarda pipeline, having the Environmental Impact Assessment obtained a favourable environmental impact statement, in



December 2010. This project is part of the first phase of the future third connection to Spain, and was approved by the European Commission (EC) for the EU funding under the European Energy Programme for Recovery (EEPR).

Reinforcement and refurbishment of the RNTGN:

- we developed the refurbishment project of 14 stations of the RNTGN with functionality from ICJCT to JCT, while the works in 11 stations have already been completed;
- we completed the set-up of emitters and receptors of mobile PIG for the execution of penetrations (Cartaxo and Chaparral);
- we conducted the inspection programme of piping integrity in 334.5km of pipeline, using an intelligent tool;
- we implemented and started using a new application of Management of Maintenance and Asset Control.

 www.ren.pt

Once again, we played the supply service of the transmission network of natural gas without interruption in supply and incidents in transport infrastructure at high pressure.

Concerning the characteristics of natural gas, all parameters were found to be in 2010 within the limits laid down in the Regulation of Quality of Service published by ERSE.

In the next gas year, the ATR computing platform acquired by REN Gasodutos, in the final stages of development, will support the relationship with our clients (Retailers, Operators of the Transmission Network and High-Pressure Clients) and will have a module management of Complaints/Enquiries that is traceable and auditable.

In 2010, 17 complaints were received, six of which related to contractual issues and eleven on technical issues. These complaints were answered within an average of 4.5 days, while the regulatory deadline for responding to complaints was 20 working days.

Supply and demand for electricity and natural gas – long-term planning

Electricity

According to the legislation, within its competencies as the concession holder of the RNT and its responsibility for security of supply to the National Electricity System (SEN in Portuguese), we cooperated with the energy department (DGEG) in the monitoring of SEN's security of supply. To this end, we should have benchmark prospective data on the evolution of the power system in the medium- and long-term and supply the elements DGEG deems necessary to prepare a proposal of Report on the Supply Security Monitoring (RMSA-E), to be submitted every two years to the approval of the Ministry of Economy and Innovation. In interim years, a simplified monitoring report is drafted.

Demand

Within the monitoring activities of SEN's supply safety and a more comprehensive work under the Iberian Electricity Market, evolution studies of electricity demand in the long term for Portugal Continental are drafted every year. These forecasts are made taking into account, in every year of the forecast period, the hypothesis of "average temperature", combined with several scenarios of economic growth translated into the evolution of variables such as GDP, national expenditure, gross disposable household income and gross value added by sector. In addition, the expected impacts of measures of energy efficiency and rational use of energy and the penetration of electrical vehicles in the long term on demand for electricity are included.

In 2010, a report was jointly prepared by REN/REE on the analysis of demand in MIBEL and forecast for the 2010-2020 period. These forecasts are the basis for studies on the coverage of Iberian demand. The monitoring bulletins of monthly demand in 2010 were published in the websites of REN and REE, which contain the analysis of demand broken down in its three basic components – economic activity, temperature and calendar effect – and of peak, for both MIBEL and for each market. In addition, monitoring bulletins include the forecast of demand and peaks for the following months.

Supply

In April 2010, the "Security of Supply in Electricity Production | 2011-2020 Period" report was drafted by REN and sent afterwards to DGEG, in which the main guidelines of the national energy policy were the guiding principles. In this report, the most important prospective elements on the evolution of the power system are presented, namely the security of supply and the requirements necessary for its maintenance in adequate levels, for the safety of network operation and intention of investment in interconnection capacity, for the share of renewable sources in consumption supply, for the evolution of consumption of fuel in the electrical sector (natural gas and coal), for environmental aspects and for the competitiveness of the national producing system, under MIBEL. These prospective studies on the evolution of the power system are drafted according to two different visions:

- "Energy Policy" – The evolution of the national power system is viewed against a backdrop of achieving the goals and objectives of the energy policy set out by the Government, namely in the new National Strategy for Energy until 2020 – ENE 2020 – approved in cabinet resolution *RCM n.º 29/2010*, of 15 April.
- "Security of Supply" – The development of the power system is viewed against a backdrop of both slower growth of supply capacity of the various components of production and further growth in demand to identify a benchmark framework for its development, which ensures the existence of appropriate levels of security of supply.

Natural Gas

According to the enforced legislation, REN as the concession holder of the RNTGN cooperates with DGEG in the process of monitoring the security of supply of the National Natural Gas System (SNGN). To this end, REN must possess prospective data of reference on the evolution of the RNTIAT in the medium- and long-term and supply the elements that DGEG deems necessary to prepare a proposal of Monitoring Report of Security of Supply of Natural Gas (RMSA-G), to be submitted until the end of the first half of each year to the approval of the Minister of Economy, Innovation and Development.

Demand

Under the activities of monitoring of the security of supply of the SNGN, studies on the evolution of demand for natural gas in the long-term for mainland Portugal are drafted every year. The development of these scenarios is based on forecasts broken down by markets: Conventional Market (Industry and Cogeneration sectors, Residential sector and Tertiary sector); and Electricity Market (consumption of natural gas for electricity generation through thermoelectric stations under the standard regime (PRO)).

Concerning the Conventional Market, the main difficulty in demand forecasting arises from the few existing observations, since natural gas is recent in Portugal. Under these circumstances, the application of some sophisticated econometric methods in the field of time series is impossible. With the maturing of the sector, the uncertainty related to forecasting may be reduced and the degree of sophistication of the methods applied may be higher. Regarding the expected evolution of natural gas consumption in the Electricity Market, the scenarios arise from prospective studies performed under the monitoring of the security of supply of the power system.

In 2010, the “Evolution scenarios of demand for natural gas | Period 2011-2020” report, which was drafted in 2010, was the basis for analyses to the supply side in the medium and long-term.

Supply

In June 2010, the “Security of Supply of Natural Gas | 2011-2020 Period” report was drafted by REN and, subsequently, submitted to DGEG, translating the view of the System Operator on the evolution of SNGN and, particularly, the outlook of the RNTIAT, the security of supply and the requirements for its maintenance in adequate levels in the medium and long-term. The main hypotheses and assumptions that supported the preparation of this report are in line with the main guidelines of energy policy. The prospective studies of the future configuration of the RNTIAT are aimed at ensuring minimum levels of security of supply that are translated into the sufficiency of infrastructure to meet consumption forecast in two perspectives:

- Supply capacity for the coverage, in annual peak periods (January), of critical situations;
- Storage capacity to ensure the formation and maintenance of the volumes of natural gas required to face critical situations, throughout time, of gas entrances in Portugal.

Under REN’s responsibilities in the process of monitoring of the security of supply of both SEN and SNGN, reports on the provisional conditions of security of energy supply in the summer period of 2010 and in the winter period of 2010-2011 were drafted. Both reports were submitted to DGEG.

Capital expenditure for transmission networks and energy storage

In spite of difficulties in the Portuguese economy, arising from the sovereign debt crisis, we were able to fulfil the entire capital expenditure plan for 2010, as well as place infrastructure into operation. In 2010, we highlight two projects completed by REN: the new interconnection with Spain in Douro Internacional, allowing an increase

in interconnection capacity, and the purchase by REN of the reserve capacity in the Portuguese pipelines that belonged to ENAGÁS.

Overall, we invested close to 443 M€ in the expansion of the transport networks, in the following segments (main projects):



REN Rede Eléctrica

49.7 M€ in the development of route “Douro Internacional Armamar”, at 400 and 220 kV
 43.3 M€ in the development of the “Portimão-Tavira” axis, at 400 kV, and its articulation with the grid at 150 kV between Tunes and Estói
 23.1 M€ in the refurbishment of the Substation of Ermesinde and related lines (first phase at 60 kV)
 19.3 M€ in the upgrade to 400 kV of route Armamar-Bodiosa-Paraimo
 18.3 M€ in the extension of the grid at 400 kV until the Substation of Fernão Ferro



REN Atlântico

71.7 M€ in the Expansion Project of the Sines terminal



REN Armazenagem

2.3 M€ in cavity 06



REN Gasodutos

16.4 M€ in the Mangualde-Guarda gas pipeline
 6.8 M€ in the change of 5 inserted derivation stations to junction stations
 4.4 M€ in the Branch of Leça
 1.5 M€ in the Branch of Pego
 1.4 M€ in the Branch of Barreiro

3.4 Research and technological development and innovation

Question to Stakeholders:

Do you believe REN is an innovative company?

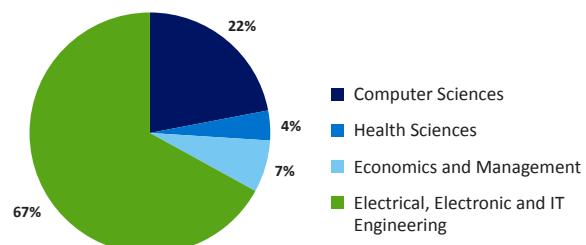
In 2010, as in previous years, we submitted applications to the SIFIDE funding programme, the tax incentives to corporate R&D system, of 2009, under the R&D activities of REN – Rede Eléctrica Nacional, REN Serviços and REN Gasodutos.

In this context, 27 projects were identified, which had the participation, in part-time, of close to 79 employees. Developed projects intended to improve operational efficiency of both electricity and natural gas

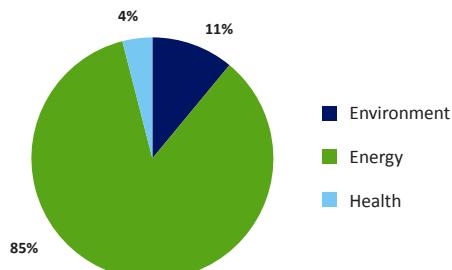
transmission networks, in the context of sustainable development, with particular relevance for health and the environment.

The projects submitted to the programme are distributed by the following scientific and technological areas: Computer Sciences, Health Sciences, Economics and Management, and Electrical, Electronic and IT Engineering, focused on diverse social and economic purposes such as Energy, the Environment and Health.²

SCIENTIFIC AND TECHNOLOGICAL AREAS



SOCIAL AND ECONOMIC GOALS



In 2010, the overall amount spent in R&D activities developed in the company was close to 1.7 M€. The amount of tax credit calculated on eligible expenses in r&d obtained with the applications to SIFIDE was estimated at approximately 601 k€.

A summary of some R&D projects in which REN participates is presented below:

PROJECT	FUNDING PROGRAMME	DESCRIPTION
ANEMOS.plus	FP6	ANEMOS – “Development of A Next Generation Wind Resource Forecasting System for the Large-Scale Integration of Onshore and OffShore Wind Farms.” This is a project aimed at implementing probabilistic forecast models for wind generation and forecast models for wind power generation.
PEGASE	FP7	The purpose of the European project PEGASE – Pan European Grid Advanced Simulation and State Estimation is to develop a methodology to implement the State Estimator of the European network and dynamic models in real time.
MERGE	FP7	Led by INESC Porto, the project MERGE – Mobile Energy Resources for Grids of Electricity aims at preparing the European electricity system to the massive use of electric vehicles.
REIVE	FAI (Support to Innovation Fund)	REIVE – <i>Redes Eléctricas Inteligente com Veículos Eléctricos</i> (intelligent electric grids with electric vehicles), is a project aimed at studying, developing and testing solutions and pre-industrial prototypes for the intelligent and active management of electricity grids with high penetration of micro-generation and electric vehicles.

² According to the terminology used in the IPCTN, the survey to the national scientific and technological potential, of the Portuguese department of science, technology and higher education

Research and development partnerships

The strategic importance we give to R&D is evident in the continuous share of knowledge and learning processes, through cooperation projects with domestic and foreign companies and academic and scientific partnerships, with the purpose of improving the management and operation of the national electricity grid and minimising the environmental impact related to the planning and construction of the national transmission grid.

In regular academic and scientific partnerships, the following stand out:

FCT – Faculty of Science and Technology of *Universidade Nova de Lisboa*

FEUP – Faculty of Engineering of *Universidade do Porto*

IDAD – Institute of Environment and Development of *Universidade de Coimbra*

IEP – Portuguese Electrotechnical Institute

INESC Porto – Institute for Systems and Computer Engineering

IST – *Instituto Superior Técnico*

LABLEC – Study, development and laboratory activities SA

UAlg – *Universidade do Algarve*

Internationally, our R&D cooperation was focused on partnerships with peer companies, such as Red Eléctrica de España (REE), under both MIBEL and the ENTSO-E, and on the participation in projects promoted by the European Union.

Participation in international bodies of the sector

In 2010, we maintained contact with the latest developments of the energy sector, having participated in several working groups of organisations and associations about pioneering topics for both the sectors of electricity and natural gas. We highlight the following participations:

- Cooperation with the *Conseil International des Grands Réseaux Électriques* (CIGRÉ) – REN is represented in 11 of the existing 16 study committees, in which current challenges for the sector are being discussed. In 2010, the SC C3 committee, Study Committee System Environmental Performance, distinguished the work developed at the CIGRÉ;
- The high level of representation at the ruling committee of the European Network of Transmission System Operators for Electricity (ENTSO-E) and the participation as a member of the European Network of Transmission System Operators for Gas (ENTSO-G), entities known as the most important debate forums on electricity and natural gas transmission in market environment. A number of REN employees participate in study committees of ENTSO.



ENTSO-E – European Network of Transmission System Operators for Electricity



ENTSO-G – European Network of Transmission System Operators for Gas



CIGRÉ – *Conseil International des Grands Réseaux Électriques*



GIE – Gas Infrastructure Europe



EGIG – European Gas Pipeline Incident Data Group



Marcogaz – Technical Association of the European Natural Gas Industry



EURELECTRIC – Union of Electricity Industry



WEC – World Energy Council

As a result of activities and projects developed, several scientific articles were published and lectures were made in 2010, and REN actively participated in international conferences and forums.

3.5 Energy of next generations

Wave energy

On 20 October 2010, REN signed the concession contract for the pilot zone through its ENONDAS subsidiary.

The pilot zone, created in January 2010, had long been awaiting its operation and was a great ambition for its promoters, which are companies developing machinery to use wave energy.

Since Portugal has a medium-high energy resource (average annual flow of 30 MW per kilometre of wave front in water with a depth of 50 metres), it has a potential of wave energy use from which an electricity generation of approximately 10 TWh/year (around 20% of our consumption) may be obtained.

The Atlantic shore has some of the best conditions in Europe for the development and use of wave energy. It is an abundant resource without being destructive, which happens in higher-latitude countries. We can say we have the entire Atlantic Ocean to collect energy.

Nonetheless, the sea is an aggressive means because of its strength, in the destructive action of its waves, and also because of its chemical (corrosion) and biological (sea life) phenomena that cause the abrasion of machinery and destruction of the systems. There is a path until the consequences of all these phenomena are minimised and the first competitive commercial machinery appears. That path includes leaving the laboratory or the workshop and going meet and test the ocean.

Investments and equipment and its operation in the sea are expensive due to its nature, and since many promoters struggle with financial difficulties it would make no sense to ask them, in an initial and research phase, to invest besides its machine in infrastructure, which, in the case its technology fails or is not competitive, is lost. It is not economically profitable that each one has its infrastructure/connection to the sea. In this phase, such investment would be a waste of resources and a sign of inefficiency.

Along with this effort for national and international development, ENONDAS has a crucial role



Wave energy – signing of the Concession Contract of the Pilot Zone

for creating conditions for the technological development of renewable energy generation from the sea, maintaining and equipping a space in the Atlantic dedicated to its early development, and to its sustainable exploration in the future.

ENONDAS has a vital role in supporting the development of such technologies by creating and managing a maritime space equipped for its establishment and progress. In the future, ENONDAS is expected to support commercial exploration so Portugal can assert itself in the sea by becoming one of the leading players in the sustainable development of the sea.

This activity is expected to have a multiplier effect on national development by revivifying professions and industries related to the sea. It will stimulate complementary activities like the naval industry, the electric components industry, port activities and the mastery and seamanship activities. In a country where the merchant marine has nearly disappeared and where fishing struggles with growing difficulties, we believe that the new opportunities that will arise with offshore energies will contribute to boost the sector by creating new opportunities for a declining activity.

At last, it will make Portugal save money in imports of fossil energy, thereby reducing its energy dependence, while contributing to decrease CO₂ emissions.

Source: DGEG, the energy department

Electric Vehicles

In the current context of policies and trends of the energy sector, the possibility of using electric vehicles is an important challenge for companies in the sector, whether it is from the point of view of consumption (growth in electricity demand) or from the point of view of supply guarantee. Consequently, this is an area we have been studying in our research and development activities. In electric vehicles, we highlight our participation in the REIVE project – intelligent

electric networks with electric vehicles, currently under way, whose purpose is studying, developing and testing solutions and pre-industrial prototypes for the intelligent active management electricity grids with great penetration of micro-generation and electric vehicles. The project is partly funded by FAI, a fund that supports innovation, and the consortium responsible for its development is composed of a set of companies and entities related to the electricity sector.

The electric systems face now the major challenge of preparing for the massive integration of plug-in electric vehicles. The features of electric motors – performance close to 100% and available maximum binary since lower regimes – related to the possibility of promoting the integration of generation for renewable sources, make the electric vehicles an essential factor to achieve the ambitious goals of decreasing CO₂ emissions and, simultaneously, reducing dependence on imports of fossil fuels.

The main barrier to overcome is energy storage in vehicles, guaranteed by batteries that currently present a low energy density, which compromises the autonomy

and relative competitiveness of electric vehicles. Nevertheless, the massive use of electric vehicles may occur in short time as that limitation is overcome.

Since we are responsible for the operation of the national electricity system and the development of the infrastructure of the national transmission network, we are particularly sensitive to the issue of electric vehicles and the development in the area of Smart-Grids, which will ensure the operation of a new interface paradigm between infrastructure of the electricity system and all agents – smalls and big producers, consumers, consumer-producers, marketers, concentrating agents.



MERGE

Mobile Energy Resources in Grids of Electricity

From the ongoing initiatives on the integration of electric vehicles, we highlight our participation in the consortium that is developing the research and development project MERGE – Mobile Energy Resources in Grids of Electricity, funded by the European Commission under the FP7 – Energy-2009-1. The MERGE project, led by INESC Porto, the Institute for Systems and Computer Engineering, is one of the largest research projects with funding from the European Union, budgeted in 4.5 M€. This project covers 16 institutions, among which is REN.

The MERGE project aims to develop a strategy to support the conversion to electric mobility and to prepare a set of tools that model, analyse and streamline the planning and future management of systems that integrate electric vehicles in a great scale, according to the concept of “mobility of energy resources relating to their connection to the network”.

These resources may be consumers (electric vehicles in charging mode) or energy generators (if the batteries of electric vehicles reinsert energy in the grid).

The development of a specific set of instruments of computational assessment able to simulate real electric systems (generation, transmission and distribution) will allow the assessment of the suitability of the preliminary interfaces of intelligent control of electric vehicles that are going to be developed in the project. On the other hand, through surveys on mobility patterns and availability of the drivers to adjust to electric mobility requirements, the impacts on the profiles of the electricity consumptions are being assessed and the evolution scenarios for the penetration of electric vehicles in several countries (including Portugal) are being made. Based on these elements and using developed models, there will be an analysis of the impacts of the presence of electric vehicles on the integration of intermittent renewable energy sources, on the stability of the system and on the adjustment of operational reserve, as well as regulatory aspects and market mechanisms.

4. Commitment to the environment

4.1 Environmental impact



Principles of
environment
protection

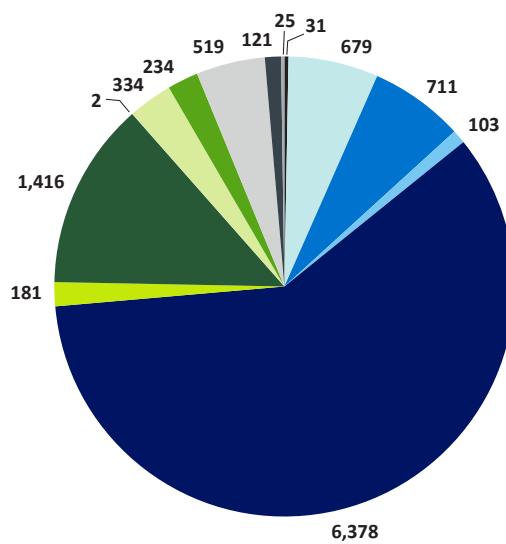
Question to Stakeholders:

Do you believe REN is an environmentally responsible company?

Environmental protection, reduction of environmental impact, rational use of natural resources, prevention of pollution and support to the development of renewable energy sources are the main guidelines of the environmental policy, published over eight years ago.

In 2010, costs and investments in environment protection summed up 10.7 million euros, which were distributed by the following categories:

ENVIRONMENTAL COSTS AND INVESTMENTS (THOUSAND EUROS)



Quality, Environment and Safety Policy Statement

In the fulfillment of its mission as a public service in the Portuguese energy sector, REN is committed to defending and promoting the principles of sustainable development and constantly endeavours to create value for its shareholders and other stakeholders.

REN's Board of Directors is committed to adopting an ethical, socially responsible business model and seeks to give balanced consideration to economic, social and environmental preservation aspects, when making decisions.

On the basis of these guidelines and within the scope of its quality, innovation, environment, safety and occupational health management system, the Board of Directors undertakes:

- ① To ensure compliance with legislation, regulations and requirements applicable to its activities and with others to which it subscribes on a voluntary basis
- ② To guarantee that relevant aspects of quality, environmental protection, safety and occupational health are systematically taken into consideration
- ③ To develop and maintain quality, innovation, environment, safety and occupational health management systems, to set improvement goals and interim targets in these areas with a view to ongoing improvement; to regularly assess results in order to evaluate the systems' efficacy and to take the necessary corrective action whenever appropriate
- ④ To minimise the environmental impacts of its activities by promoting rational use of natural resources, prevention of pollution and support for the development of renewable energies
- ⑤ To use all means at its disposal to prevent serious accidents involving hazardous substances and occupational accidents and diseases in order to ensure and maintain high standards of performance in matters of occupational health and safety
- ⑥ To promote the development of its employees and guarantee that their skills are appropriate to the jobs that they perform
- ⑦ To promote research, development and innovation in the field of the services it provides, corporate organisation, processes and communication within the company and in partnership with other entities
- ⑧ To perfect stakeholder relations mechanisms in order to improve REN's performance and the satisfaction of its employees and other stakeholders by learning more about their needs and expectations
- ⑨ To involve not only all the Group's employees but also suppliers and service providers that cooperate with REN in its different activities and initiatives in respect for the above principles and commitments

Lisbon, May 13th 2009

The Board of Directors



- Landscape integration
- R&D partnerships and projects
- Compensatory measures
- Waste management
- Florest cleaning
- Birdlife protection
- Requalification of lines
- Acoustic study
- Audit, consulting and environmental communications
- Diverse equipment for environmental protection
- Monitoring
- Other costs
- Management of water treatment plants and wastewater treatment plants

Systems of Environmental Management

Since management systems significantly contribute to standardise procedures and to set objectives and goals that lead to environment protection and performance improvement, REN has invested in this area by gradually increasing the scope of certified activities.

To maintain the effort of developing management systems of quality, environment and safety and certifying all the companies of the Group, Councils of Quality, Environment and Safety, which meet at least once a month, were created. It is an advisory body to the company's Board of Directors on quality, environment, safety and social responsibility, with a view to:

- proposing objectives and goals of the company, in terms of quality, environment, safety and social

responsibility, aligned with corporate goals, and formulating the respective activity plans;

- commenting the results of audits to management systems conducted in the company and the follow-up of corrective actions undertaken;
- issuing opinions on the documents of the management systems that comprehend the entire company and on periodic reports of the performance of the management systems and contributing to the review report of the management systems.

In February 2010, REN Armazenagem and REN TELECOM were granted certifications of quality, environment and safety, an achievement that completed the certification in the three areas for all REN's activities.

	REN ELÉCTRICA	REN SERVIÇOS	REN TRADING	REN GASODUTOS REN ATLÂNTICO	REN ARMAZENAGEM	REN TELECOM
2010					ISO 9001 OHSAS 18001 ISO 14001	ISO 9001 OHSAS 18001 ISO 14001
2009				ISO 9001 OHSAS 18001 ISO 14001	ISO 9001 OHSAS 18001 ISO 14001	
2008	ISO 9001 ⁽²⁾ OHSAS 18001 ⁽²⁾ ISO 14001 ⁽²⁾	ISO 9001 ⁽²⁾ OHSAS 18001 ⁽²⁾ ISO 14001 ⁽²⁾	ISO 9001 ⁽²⁾ OHSAS 18001 ⁽²⁾ ISO 14001 ⁽²⁾			
2005	ISO 9001 ⁽¹⁾ OHSAS 18001 ⁽¹⁾					
2003	ISO 14001 ⁽¹⁾					
2000	ISO 9001*					

* Certification granted to the activities of construction of lines and substations of the Division of equipment of Rede Eléctrica Nacional

1) Certification granted to the object of concession of the Rede Eléctrica Nacional

2) Transfer of certifications to REN SGPS. Extension of certifications in the three areas to REN – Rede Eléctrica Nacional, REN Trading and REN Serviços

The environmental impacts of our activity



IMPACTS		MEASURES OF MINIMISATION AND MONITORING
LANDSCAPE	Visual impact of lines and substations	Projects of landscape integration of infrastructure Dismantling and shutdown of electrical lines at the end of useful life
NOISE	Discomfort	Encapsulation and replacement of power transformers in substations Implementation of noise monitoring plans Replacement of conventional insulators by composite insulators in lines and busbars of substations Replacement of marker spheres in electric lines to reduce noise
WATER RESOURCES	Changes to habitats	Monitoring of biological and ecological marine factors, in the rejection of seawater from the liquefied natural gas (LNG) heating circuit
AIR QUALITY	Contribute to greenhouse effect and air pollution	Monitoring of gases from burning gas in boilers and in cogeneration Control of natural gas purges Set-up of thermal solar panels at GRMS Training and certification of technicians that use SF ₆
FAUNA, FLORA AND USE OF THE LAND	Collision of birdlife with the electricity grid, changes to habitats and use of the land	Placement of nesting platforms and nests transfer Lines marking to reduce collision of birds Monitoring of fauna in the brine discharging area and of the biological status of dune depressions due to the construction of natural gas storage cavities Promotion of a feeding area for endangered species Heightening of lines Restriction of the intervention area to the limits of the property corridor and cleaning of the corridors of energy transmission grids

Environmental impact assessment

Depending on the lifecycle phase of operations (planning, project, construction, operation, maintenance or shutdown), different tools of environmental assessment are applied:

- Strategic Environmental Assessment (AAE)
- Environmental Impact Assessment (AIA)
- Study of environmental incidences/environmental framework
- Significance and environmental risks assessment

In 2010, there were four processes of environmental impact assessment, which guaranteed that potential environmental consequences and impacts of a project were analysed, assessed and approved.

The strategic environmental assessment (AAE), set out by government decree *Decreto-lei n.º 232/2007*, of 15 June, is the instrument focused on the planning phase. The main purpose of this instrument is to integrate environmental values in the strategic decision-making process.

As mentioned in the Sustainability Report 2009, the Electricity Transmission Grid Development and Investment Plan 2009-2014 (2019) – PDIRT, which

includes investments to be made in the electricity area to ensure the harmonised and integrated operation of the National Electricity System (SEN), was subject to an environmental assessment (AA).

The environmental assessment culminated in the preparation, in 2009, of the Environmental Statement – Development and Investment Plan of RNT 2009–2014 (2019), where the measures of assessment and environmental control related to plan execution are listed.

In 2010, we submitted to the Portuguese Environmental Agency (APA) the first Environmental Control and

Assessment Report, relative to 2009, following the legislation applicable to the assessment and control of effects on the environment arising from the implementation of PDIRT and to the verification of the adoption of measures set out in the Environmental Statement. This report summarises the monitoring of the execution of PDIRT during 2009 and includes the main changes in the technical terms of decisions concerning the evolution of the National Electricity Transmission Grid (RNT) and in the environmental front assumed in PDIRT's Environmental Assessment.

CHANGES ON PROJECTS FOR THE SUPPLY OF CONSUMPTION

The feeding solution at 220 kV to the Ermesinde substation was reformulated to minimise the impact on territory planning. The new solution considers the opening of a new 400/220 kV substation in the Alfena area and the construction of two connections, partly overhead and partly underground, between Alfena and Ermesinde, which allows the full decommissioning of the three 150 kV lines between the substations of Vermoim and Ermesinde.

In Greater Lisbon, a new connection was established between the substations of Alto de Mira and Carriche, in an underground 220 kV line, providing a reinforcement of the 220 kV connection between these two points.

CHANGES TO THE FEED OF HIGH-SPEED RAILWAYS

The timeline of projects related to the feeding of the high-speed Lisbon-Madrid railway were adjusted due to the updated forecasts from the high-speed railway grid (RAVE). The joint work of project streamlining between REN and RAVE proceeded, namely on the contiguous location of the substations of each entity to feed the traction substations, thereby minimising cumulative impacts.

MEASURES FOR ENVIRONMENTAL PROMOTION

In the substation of Batalha, the disqualification of two former transformation units of 220/60 kV with high noise level was decided in 2011, which were replaced by two new 400/60 kV units with lower noise levels. With the same purpose, the replacement of an ancient transformation unit of 220/60 kV in the substation of Alto Mira in 2012 was decided.

CHANGE TO THE TYPE OF TECHNOLOGY IN CONSTRUCTION OF SUBSTATIONS/SWITCHING STATIONS

The construction in armoured technology of six new substations and switching stations, provided for in PDIRT to have conventional technology for air isolation, which leads to lower visual and noise impact, was decided. In almost all cases, they are facilities in urban areas or reasonably urbanised. Given space limitations, a similar decision was made concerning the reconstruction of Picote switching station.

The report presents the status on the implementation of the Management and Planning Guidelines and the Monitoring Guidelines, which were set out in the Environmental Assessment (AA). From the broad range of consultations with city halls, coordination and regional development committees, the Portuguese Environmental Agency (APA), the institute for the preservation of nature and biodiversity (ICNB) and non-governmental organisations (NGO), we improved the perception of these entities on the importance of projects under PDIRT, thereby disclosing to other stakeholders information on the main environmental impacts of RNT's infrastructure and the new planning decisions and changes undertaken.

In 2010, REN started, under paragraph 11 of government decree *Decreto-lei 232/2007*, an execution process of the new Transmission Grid Development and Investment Plan, ranging the timeline target of 2022. This new investment plan will be subject to a similar process regarding the Strategic Environmental Assessment and the public consultation, which is

scheduled for the first half of 2011. The release of the final version of PDIRT is scheduled for July 2011.

This way, it is crucial to maintain a permanent dialogue and cooperation with the several entities involved in both the preparation of PDIRT and its implementation, in order to ensure the existence of proper conditions for its execution.

In the context of the activities for expanding and improving the energy network, other environmental assessment procedures were implemented, as shown in the following table.



PROCESSES	2008	2009	2010
Processes of Environmental Impact Assessment	15	12	4
Post-Assessment Processes of Environmental Impact	3	11	6
Environmental Impact Statement	7	11	7
Study of incidents/Environmental Framework (EIncA/EEA)	7	8	9
Environmental Impact Studies (EIA)	8	5	9
Environmental Compliance Report of the Execution Project (RECAPE)	3	10	2

Concerning monitoring and supervision activities, monitoring actions were implemented in 2010 in several works in the following descriptors:

DESCRIPTORS	Number of monitored works	
	2009	2010
Birdlife	11	10
Soundscape	10	15
Electromagnetic fields	1	1
Water resources	1	1
Flora	1	2
Iberian Wolf	1	1

Furthermore, 25 works in lines/pipelines and six in substations were subject to environmental monitoring and supervision.

In 2010, REN created the Methodological Guide for the Environmental Impact Assessment of the Infrastructure in the National Electricity Transmission Grid – Substations. This guide is the result of the streamlining procedure of the Environmental Impact Assessment applied to substations, following the protocol signed by REN and the Portuguese Environmental Agency (APA). The working version of this guide was disclosed in REN's website and was available for consultation from May 7th to June 8th of 2010. An email address for feedback and improvement suggestions was created. A formal opinion was requested to 40 entities. Following the consultation period, a report with the analysis of the opinions received was published in September 2010. Afterwards, REN analysed its applicability to the guide.

Compensatory measures

In 2010, we continued the measures for monitoring and compensating impacts on the following lines of the electricity grid:



Principles of environment protection

ALQUEVA-BROVALES LINE, OF 400 KV (PORTUGUESE SECTION OF THE ALQUEVA- BALBOA LINE)



Implementation state: First phase of the project was completed.

Compensatory measures for the crane and the little bustard

Goals:

- minimising the crossing of the Spanish Alqueva-Spanish border line, of 400 kV, by cranes and little bustards, reducing the chances of collision

Accomplishments up to date:

- in 2009, there were 159 deaths considered as the result of collision with the line
- most collisions occur in the autumn. Some of the causes of these results are the rise in the number of birds of some species, migrating birds passing by and the gathering of some resident species in flocks
- the fallows with height between 10 and 30 centimetres assume a crucial importance for the little bustards
- cranes used regularly the compensatory piece of land. Its presence was recorded in the cereal fields as well as in the fallow

TUNES-ESTÓI LINE



Implementation state: The second phase of the project is under way (2009-2014)

Specific monitoring for the Bonelli eagle

Goals:

- monitoring reproductive parameters, mortality and adult renewal
- monitoring interaction with the line
- monitoring by satellite telemetry
- studying the diet

Accomplishments up to date:

- in September and October no birds were seen. In November, at least one bird of the pair was seen
- not enough material was gathered to allow the study of the diet

Measures of promotion of the wild rabbit

Goals:

- management of the habitat
- monitoring and advising on hunting activities
- making exceptional restocking
- monitoring and making sanitary control

Accomplishments up to date:

- final calculation of variety, quantity and density of seeds and fertilizers to be used in each piece of land
- evidence of the presence of the wild rabbit in surrounded land
- animals presented good physical conditions, since there were no deaths due to handling and/or transportation
- sanitary reports of monitoring

SINES-PORTIMÃO LINE 3

Implementation state: The implementation of compensatory measures was completed and a new protocol, approved by the institute for the preservation of nature and biodiversity (ICNB), was drafted. According to this protocol, the implementation of the second phase is expected to occur in 2011

Measures of promotion of the wild rabbit

Goals:

- monitoring the set-up/renewal of cultures for the fauna
- assessing the success of the initial germination of seeds
- assessing the restart of reproduction and monitoring deaths within surrounded land and in the surrounding area, and the food available inside that area
- assessing the state of preservation of selective exits of surrounded land
- monitoring on a monthly basis the relative density of wild rabbit in surrounded land and monitoring on a quarterly basis the relative abundance of wild rabbit in the Intervention Area

Accomplishments up to date:

- good development of sowing in the three hunting areas
- sowing in the surrounded area were almost all consumed
- pastures in the outskirts of the surrounding land with abundant green food
- indices of reproduction occurrences
- selective exits in good conditions

**BRANCH BETWEEN THE
MOGADOURO-VALEIRA
LINE AND THE MACEDO
DE CAVALEIROS
SUBSTATION**
(RS2009 PAGE 65)

Implementation state: We have sent the final report of the three years of implementation of the compensatory measures to the APA and the ICNB. In addition, we have also sent the protocol of the second period (2011-2014) to the APA and the ICNB, whose opinions are awaited

Measures of protection of the Bonelli's Eagle and Golden Eagle couples

Goals:

- increasing food available for prey species through the improvement of surviving conditions of their preys (wild rabbit and red-legged partridges)
- establishing protocols with the managers of the hunting areas of Castro Vicente and Valpereiro, Lagoa and Azinhoso
- recovering and restocking six traditional dovecots

Accomplishments up to date:

- successful reproduction of the Golden Eagle with the birth of three offsprings
- the routes of Bonelli's eagles were located nearby the restocked dovecots



Principles of
environment
protection

Environmental Performance Promotion Plans (PPDA)

The environmental performance promotion plans (PPDA), voluntary regulation instruments promoted and coordinated by ERSE, aim at promoting the environmental performance of regulated companies in the sectors of electricity and natural gas. Currently, there are PPDAs defined for REN – Rede Eléctrica Nacional, REN Armazenagem, REN Gasodutos and REN Atlântico, each plan contains the definition of

the measures to be applied in the respective period. Execution reports of PPDAs are periodically prepared, in which the main activities undertaken in the period of reference for each measure are described. The environmental merit of the activity, the presentation of efficiency and fulfilment indicators and the results of budget execution, with the explanation of possible deviations, are also described.

PPDA 2009-2011 REN – REDE ELÉCTRICA NACIONAL (MAIN MEASURES)	PPDA 2008-2010 REN ARMAZENAGEM (MAIN MEASURES)
Projecto LIFE + Steppe birds Goal: Promoting the preservation of the bustard (endangered species), the little bustard (vulnerable species) and the lesser kestrel (vulnerable species), in the habitat of the cereal steppes of Baixo Alentejo (further information in page 70 of the SR)	Monitoring the status of biological conservation of dune depressions at Osso da Baleia Goal: Monitoring possible impacts of the aquifer exploration activity, for the leaching station, in the development of vegetal species from the surrounding ecosystem and improving REN Armazenagem's environmental performance to minimise any consequences of the exploration of this resource (further information in page 65 of the SR)
Preservation of protected species – cork and holm oaks Goal: Minimising the impact of corridors of RNT's lines on the cork forest and the holm oak forest by heightening lines	
Assessment of the effectiveness of anti-collision devices with birds (partnership with Quercus) Goal: Assessing the effectiveness of anti-colliding devices with wild birds (further information in page 70 of the SR)	
Protection of birdlife – nests and perches Goal: Setting up nesting platforms, anti-perching devices and transfer nests (further information in page 69 of the SR)	
"A vida do condoninho" project Goal: Raising awareness through the "Renata" entertainment series	

PPDA 2008-2010 REN GASODUTOS (MAIN MEASURES)	PPDA 2008-2010 REN ATLÂNTICO (MAIN MEASURES)
<p>Achievement and maintenance of the environmental front of the Integrated Management System of Quality, Environment and Safety Goal: Renewing the EN ISO 14001:2004 certificate</p>	<p>Maintenance of the environmental front of the SIGQAS Goal: Renewing the ISO 14001:2006 certificate</p>
<p>Dedicated protection of the Natural Reserve of Lagoas de Santo André and Sancha (RNLSAS) Goal: Ensuring the improvement of conditions for the permanence of birdlife, minimising the impact on habitats with priority of the margins and making natural gas transport compatible with the preservation of the integrated habitats of RNLSAS</p>	<p>Monitoring of marine ecological and biological factors Goal: Assessing potential impacts related to the discharge of cold (arising from the process of regasification of natural gas – LNG) and injecting sodium hypochlorite in marine environment</p>
<p>Innovation and development projects in alternative and renewable energy Goal: Setting up thermal solar panels in gas regulating and metering stations (further information in page 64)</p>	

Our performance

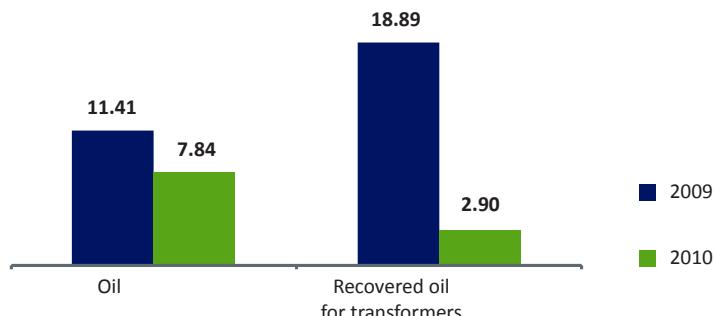
CONSUMPTION OF MATERIALS ¹	2009	2010
Nitrogen (m ³)	758	1,119
Lubricating oils (t)	0.93	8.87
Lubricating grease (t)	0	0.01
Oil (t)	11	8
pH reducing agent: H ₂ SO ₄ at 38%	5,075	1,770
Caustic soda (t)	0.23	0.10
Sodium hypochlorite (t)	146	147
Gas odouriser (THT) (t)	48	55
Reused oil (t)	19	3
Ink cartridge and toner (no.)	1,639	1,282
Paper for administrative use (t) ²	28	30
Recycled paper for internal use (t)	6	3

¹ The consumption of materials is estimated based on the amounts purchased for restocking

² The consumption of paper includes the consumption of virgin paper, recycled paper and stationary (envelopes, stationary paper, etc.)

The process of reusing recovered oils was significantly reduced due to the change in technology (replacement of circuit breakers with insulating cut technology – hydraulic, by breakers at SF₆ with control spring). The decrease in these amounts is expected to continue in the coming years.

CONSUMED AND RECOVERED OIL (T)

**ENERGY CONSUMPTION**

	2009	2010
Electricity of infrastructure and buildings (GJ)	241,040	255,465
Natural gas (cogeneration, boilers, pilots and controlled flare burning) (GJ)	295,205	288,760
Diesel in other equipment (GJ)	228	506
Propane gas (GJ)	N.A.	74
Natural gas (GJ)	182	7,894
Fuel for the vehicle fleet (GJ)	28,837	27,177
Losses from the electricity transmission grid (GJ) ³	2,048,062	2,820,852
Losses from the gas transport network – purges (GJ)	3,658	3,281

ENERGY GENERATED/SOLD

Primary energy generated (cogeneration) (GJ)	10,290	5,975
Direct primary energy sold (cogeneration) (GJ)	7,091	3,942

GREENHOUSE GAS EMISSIONS

Direct emissions (t CO ₂ eq)	2009	2010
Natural gas purges (CH ₄)	1,294	1,161
Flare burning	948	2,028
Self-consumption of boilers	14,352	13,467
Cogeneration	1,440	818
Sulphur hexafluoride (SF ₆)	683	839
Natural gas	10	443
Diesel in other equipment	17	37
Fuel for the vehicle fleet	2,099	1,979
Indirect emissions (t CO ₂ eq)	2009	2010
Electricity	23,730	16,092
Losses of electricity in the grid	201,598	177,667

³ In 2010, the emission factor used was 226.74 gCO₂eq/kwh, below 2009 (354 gCO₂eq/kwh), which is the figure provided by REN's energy supplier, EDP Serviço Universal.

In 2010, losses from the electricity transmission grid increased substantially, which is a result of the climate conditions in 2010 and the geographical location of the different typologies of generation plants.

The year was very rainy (wet year) and windy, leading to a significant increase in energy generation from hydroelectric power stations and wind farms, which are associated with higher losses. Energy generation was followed by a significant decrease in the generation from large thermal plants.

There are high losses in transportation when the weight of renewable energy is larger due to its location: they are located in the North and in inland areas of Portugal, connected to the 150 kV and 220 kV grids, in locations where the grids are less spotted and where distances to big consumption centres are higher. Large thermal plants are mostly located by the shore, where there is higher consumption, and are connected to the 400 kV grid, which has higher transmission capacity and lower losses.

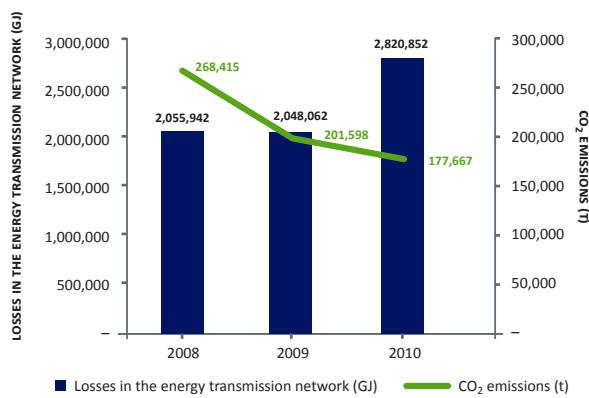
This way, the energy had to travel, in 2010, longer distances between generation and delivery, with many kilometres of 150 kV and 220 kV grids, leading to higher losses in transmission.

However, in spite of the increase in losses from the electricity transmission grid, CO₂ emissions fell significantly as a consequence of the expanding integration of renewable energy in the grid. Once more, REN's role is crucial to guarantee the reception of renewable energy, thereby reducing greenhouse gases emissions from electricity generation.

There was a global increase in electricity consumption in the infrastructure and premises of the REN Group. Electricity consumption in REN Gasodutos increased by close to 9% in 2010 as a result of the construction and start of operations of new gas regulating and metering stations and the conversion of the natural gas heating systems in several gas regulating and metering stations, thereby increasing installed electrical charges (burners of boilers and water circulation pumps). In REN Rede Eléctrica, the 27% increase was due to the rise in the number of facilities taken into account and to the inclusion of a second counter in the premises of Ermesinde, which was not considered in previous years.

In 2010, there was a 44% decrease in consumption of gas from REN Gasodutos, following a stop in the cogeneration set-up, with the consequent reduction of primary energy generation and rise of natural gas consumption.

Consumption of electricity from infrastructure and premises (45%) and consumption of natural gas (50%), as a result of the operation of cogeneration, boilers, pilots and controlled flare burnings, account for almost the total amount of REN's energy consumption.



On 2 May of 2010, the Capacitors Battery Panel 60 kV-1x30 Mvar, in the Trafaria substation at 150 kV/60 kV, came into operation. The set-up of capacitors batteries in the electricity grid aims to compensate reactive power generated, which leads to the following benefits:

- reduction of voltage drops;
- reduction of losses from conveyances heating;
- improvement of capacity in the Transmission Lines.

WATER AND EFFLUENTS

Consumption of water from the public network (m ³)	82,284	90,936
Water abstraction from underground sources (m ³)	1,846,617	1,548,250
Use of seawater (m ³) ⁴	72,835,000	73,115,000
Discharge of brine into the sea (m ³)	1,764,157	1,167,472
Discharge of brine for treatment (m ³) ⁵	611,604	266,399
Free chlorine – annual average (mg/l)	0.56	0.34

⁴ Abstraction and discharge of seawater used in the regasification process of Liquefied Natural Gas

⁵ Discharge of water resulting from the construction of salt cavities for storing natural gas

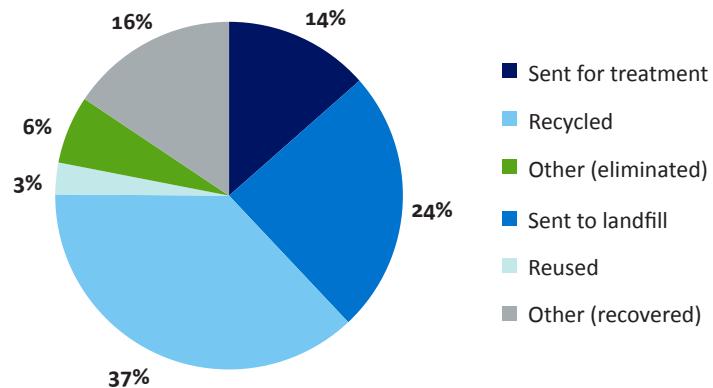
The use of seawater for recirculation accounts for 98% of the Group's total water consumption. In 2010, consumption of water from the public network went up by 26% in REN Atlântico due to a leak in the water supply line at the entrance of the Sines Terminal Atlântico.

WASTE	2009	2010
Hazardous (t)	1,439	41
Non-hazardous (t)	49,578	195

The substantial reduction of the amount of waste sent for appropriate disposal is due to the fact that, until the end of 2009, the waste produced by infrastructure maintenance activities and construction works were fully managed by REN. From 2010 onward, the responsibility for sending waste to the disposal destination was

passed to contractors, as producers, since they hold the majority of waste produced.

In 2010, 56% of waste was sent to one of these three disposal destinations – recycling, reusing and other recovery.



4.2 Climate change

In the context of its activity as a commercial agent, REN Trading is also an active company regarding climate change. The management of the plants that have Power Purchase Agreements (CAE), Tejo Energia and Turbogás, is conditioned by the rules and limits set out in PNALEII¹ and, accordingly, is framed in the European Union Emissions Trading Scheme (EU ETS).

To minimise the annual charge with the acquisition of emission licences and the total charges of consumers with electricity acquisition, REN Trading operates in the market through its participation in the BlueNext, ICE/ECX (Intercontinental Exchange/European Climate Exchange) and NordPool exchanges.

REN Trading is in charge of managing the portfolio of CO₂ emission licences and formulating a management strategy for these environmental obligations for both

plants, which comprises the purchase and sale of licences and the swap of licences awarded in the context of CELE by certificates of emission reduction created in projects of Clean Development Mechanism.¹

With ceiling limits for CO₂ emissions, REN Trading's decisions on the placement of the production of these plants in the market always take emissions into account and its cost in CO₂ licences. This means the integration of CO₂ costs into overall production costs of the Pego coal plant may reverse its competitiveness in the electricity market and lead to its replacement by a less pollutant production. Through the mechanism created by the EU ETS and the operation of the Iberian electricity market, there is a real influence on the combined emissions of plants and on Portugal's operation programme.

National Strategy for Adaptation to Climate Change

On 1 April 2010, cabinet resolution *Resolução do Conselho de Ministros 24/2010* was published in the *Diário da República*, which approved the National Strategy for Adaptation to Climate Change. This document is intended "to provide the country with a tool that promotes the identification of a set of guidelines and adaptation measures to be applied, through sector instruments, since the combat against climate change is a comprehensive challenge, which requires the involvement of a broad range of sectors and an integrated approach".

Regarding companies, the strategy points to the integration of risks related to climate change in risk analyses for businesses, as well as the execution of measures that prevent, minimise or eliminate those risks, under strategies coordinated with the Portuguese state. For companies operating in the energy sector, the Strategy refers to the following: "Following a rise in sea level, generation plants

and other facilities located by the coast may be affected not only because of the risk of flooding but also due to possible needs of refurbishment in infrastructure connected to port facilities (e.g. the LNG Sines Terminal). Regarding transmission and distribution of electricity, there may be increases in losses in the grids. The rise of air temperature leads to higher resistive losses in cables of transmission and distribution of electricity. This impact is estimated in close to 1.5% of additional losses. Moreover, the increase in extreme climate phenomena may boost the risk for activities in the electricity sector, which might range from brief unavailability of service to the full destruction of assets (generation plants, lines, substations, etc.). This way, considering the potential effects mentioned above, special importance must be given to the monitoring level of supply safety".

Invited by DGEG, REN participates since the end of 2010 in the working group that will implement a set of measures of the National Strategy for Adaptation to Climate Change in the energy sector.

¹ National plan for the award of CO₂ emission licences

“Monitoring of the biological preservation state of dune depressions at Osso de Baleia (Pombal) project”

The Mediterranean is one of the areas where a significant reduction of water availability and, consequently, an increase in the risk of desertification is expected, in the context of the global climate change. Under these circumstances, coastal dunes are habitats with ecological interest and definite preservation interest, possessing a specific and very rich flora, particularly sensitive to stress and disturbance. With this project, the purpose is to follow possible changes in the composition, structure and behaviour of plant communities of coastal dunes under the influence of the fall of the phreatic level arising from climate change.

According to available data, studied species vary widely in the intake and use of water available in the soil, with a clear difference between the periods

of greatest (winter and pre-spring) and lowest (summer) water availability.

REN Armazenagem must maintain predetermined exploration conditions, record and assess any change in the performance and behaviour of the plant community, especially in the summer, the period of major environmental stress.

This leads to the conclusion that, in general, the level impact of phreatic exploration was very little and had no negative consequences for the studied ecosystem. However, the strong seasonality of the region, in particular during the driest period (from spring to the end of the summer), as well as space heterogeneity, makes us suggest the continuous monitoring of the composition and behaviour of the plant community. In addition to this environmental monitoring, the maximum water flow of extraction and the minimum predetermined water levels for each abstraction well must continue to be fulfilled. The implementation of a space/time model of the answer of crucial species to changes in phreatic levels is recommended.

Acknowledging the importance of the use of renewable energy sources in the national energy policy, we completed the set-up of the systems of thermal solar panels in two selected gas stations (Seixal and Frielas), in December 2010. With this measure, included in the PPDA of REN Gasodutos, we were able to reduce self-consumption of natural gas arising from burning in boilers and greenhouse gas emissions and other pollutants, such as pollutant NO_x that induces tropospheric ozone.

In a scenario of greater relevance of environmental issues, it is important to measure the total amount of avoided emissions in both climate change, due to GHG emissions, and CO₂ or equivalents arising from thermal solar set-up.



GHG EMISSIONS AVOIDED WITH THE SET-UP OF THE SOLAR SOLUTION IN THE GAS REGULATING AND METERING STATION 1209 – FRIELAS

SOLAR SOLUTION DIRECTED TO SOUTH WITH A 33 DEGREE INCLINATION

SOLAR SOLUTION DIRECTED TO WEST WITH NO DEGREE INCLINATION

Tonnes of CO ₂	69.9	75.8
Tonnes of equivalent CO ₂	72.2	78.4

We intended to reduce greenhouse gas emissions arising from transport, through the promotion and incentive to videoconferences as an alternative to travelling from

employees. In 2010, 426 videoconferences were held, up 104% against last year. The number of air travels between Lisbon and Porto decreased by 41%.

4.3 Biodiversity

Question to Stakeholders:

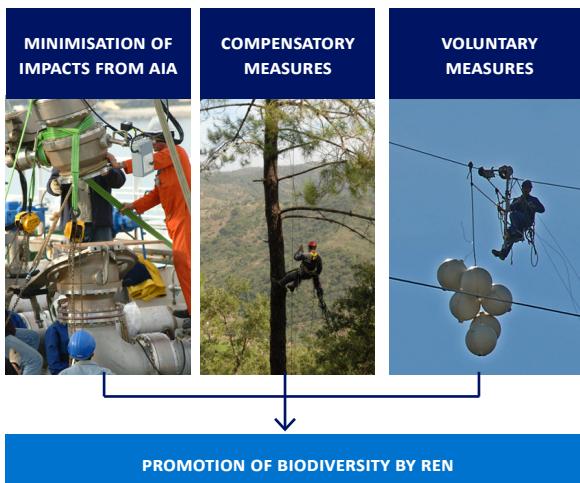
Do you believe REN is concerned with the preservation of biodiversity?

We have continued the implementation of measures intended to minimise effects in areas with high biodiversity value by setting up several partnerships with environmental non-governmental organisations in order to develop studies that allow the mitigation or compensation of the impacts on biodiversity caused by our activities.

REN's guidelines in this domain are the following:

- identifying the activity's impact on biodiversity;
- assessing risks and adopting measures to minimise negative impacts;
- promoting initiatives with positive impacts;
- integrating biodiversity in REN's overall activity;
- setting up partnerships with entities and organisations;
- supporting initiatives of nature conservation;
- engaging all employees, suppliers and service providers.

OCCUPATION IN SENSITIVE LOCATIONS	AREA/LENGTH	PERCENTAGE OF OCCUPATION ON THE TOTAL
Stations/Facilities	0.46 km ²	5%
Extension of pipelines/ lines	1,146.69 km	12%



**ANO INTERNACIONAL DA
BIODIVERSIDADE
DIÁRIOS DA BIODIVERSIDADE**



In the International Year of Biodiversity we supported the "Biodiversity Diaries" competition, aimed at stimulating young and children's interest for Life Sciences and mostly at raising the awareness of new generations for the preservation of nature and biodiversity and also for the sustainable management of species and natural habitats of fauna and flora in our planet.

Flora and soil use

The main impacts of REN's activity on these environmental descriptors are related to land occupation by our infrastructure.

In 2010, we requested the permission of the Portuguese forest authority to fell 627 cork oaks, in the context of the construction of the Pego high-pressure pipeline branch and the Industrial Branch of Leça, of REN Gasodutos. To fulfil our legal obligations, we created a project for supporting the restocking of cork oaks in the national forest of Mestras and the management plan, *Beneficiação de Povoamento de Sobreiros da Mata Nacional das Mestras e Plano de Gestão*, and a project for supporting the restocking of cork oaks in the forest perimeter of Soajo-Peneda (plot 14) and the management plan, *Beneficiação de Povoamento de Sobreiros no Perímetro Florestal Soajo-Peneda (plot 14) e Plano de Gestão*, which are specific compensatory measures of the requested fell.

The supported areas, in a total of 28.16 ha, are located in the south of the national forest of Mestras and in the west side of a hill in Lugar da Cumeeira, by the Couso village, and were subject to the following interventions:

- control of spontaneous vegetation by cleaning the woods;
- densification of the restock by planting cork oaks using certified plants.

There was a fire, an unpredictable and frequent situation in that area, about 15 days before our visit, which was successfully stopped in the delimited firebreak perimeter.

The conversion initiatives of land use in protection corridors started in 2000 as a result of REN's difficulty in executing maintenance actions every three years in



certain areas. From the advantages of these initiatives, which only in 2010, with the Batalha-Lavos line, integrated the tender books, we highlight the following:

- making vegetation and the presence of the line compatible, avoiding at the same time the proliferation of fast-growth species that affect the operation of the infrastructure;
- appreciation of the landscape while promoting the variety of vegetable species and higher profitability of land exploration by the owners, in compatibility with the line;
- reducing maintenance costs incurred annually by the company in the corridors of protection of lines;
- decreasing fire risk, which is also part of the national strategy of forest fire fighting and fulfils current legislation that states the creation of corridors for fuel management in the corridors of the electricity transmission lines, according to the municipal plans for the protection of forest against fires.

The corridor of protection to the line consists of the land corridor beneath the line with 45 metres of maximum width, delimited by two parallel lines at 22.5 metres from the axis of the outline, where trees needed to ensure the minimum length set out in decree *Decreto Regulamentar n.º 1/92*, of 18 February, can be cut or trimmed.

The conversion of the corridor of protection to the line consists of pulling out the stumps of fallen trees in surpassed areas and in the consequent reforestation with vegetable species that allow the fulfilment of the minimum lengths of safety between drivers and vegetation.

Regarding integration of electrical lines into the forest landscape, government decree *Decreto-lei n.º 124/2006*, of 26 June (republished by government decree *Decreto-lei n.º 17/2009*, of 14 January) sets out the obligation, by the entity in charge of the exploration, of managing fuel in a corridor corresponding to the vertical projection of the external conductive cables added with a corridor with no less than 10 metres of width to each side throughout high voltage and very high voltage lines of electricity transmission and distribution (Article 15º).

In 2010, this conversion was conducted in 56 kilometres of lines, in 141 towers/support and in over 1500 owners, which are scheduled for completion in May 2011.

In this particular work, of a total area of 183 ha where grove was felled, 173 ha will be converted by planting 145 thousand trees, where stone pine (95%) will predominate, followed by cork oak (4.7%) and other species such as cork oak and olive (0.3%).

The selection of species used in reforestation depends on edaphic and climate conditions, on the features of

the species, as set out by the Code of Good Practices for Sustainable Forest Management, on fire risk, on the intervention's goals and on its compatibility with the line. While REN is responsible for suggesting the most appropriate species for each location, the owners are in charge of choosing the species, being co-responsible for the management of areas affected by the presence of the line. This proactive behaviour of the company in the search for economically viable alternatives for the exploration of these areas furthered negotiations with owners, who welcomed the conversion of their lands.

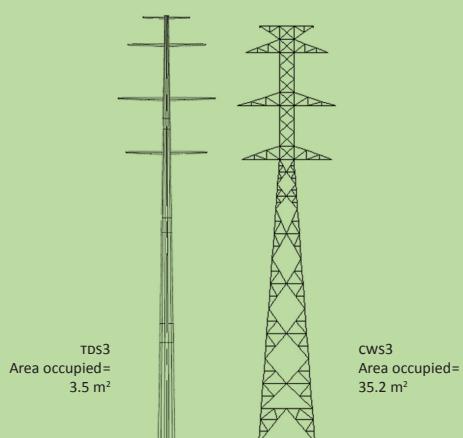


Tubular supports

The implementation of this project arises from the need to refurbish the 150 kV line in the area surrounding Greater Porto, namely the connections between the substations of Vermoim and Ermesinde. This area is characterised by limitations in terms of land use and by the high relevance of landscaping issues. Although the project of line refurbishment has been abandoned, it was considered that line projects may be developed in neighbouring areas of urban roads with permanent highways. This type of support may be important for lines to use the space-channel of those highways.

Implementation status of the project: The new family of tubular supports, TD, is an improvement in dimension and weight regarding the tubular supports of 220 kV being used in the National Electricity Transmission Grid. Once the trial phase of prototype assembly of this new group of support is completed, the licencing phase by the energy government department is started, after which tubular supports may be used in lines of the national electricity transmission grid.

Reduction of the level of land use: with this new group of tubular supports, a reduction of some 90% in the area of land used is achieved, in comparison with traditional truss supports, since the tubular hoisting tower with an useful height of 36.6 m, TDS3, occupies an approximate area of 3.5 m² while the corresponding truss support, cws3, occupies close to 35.2 m².

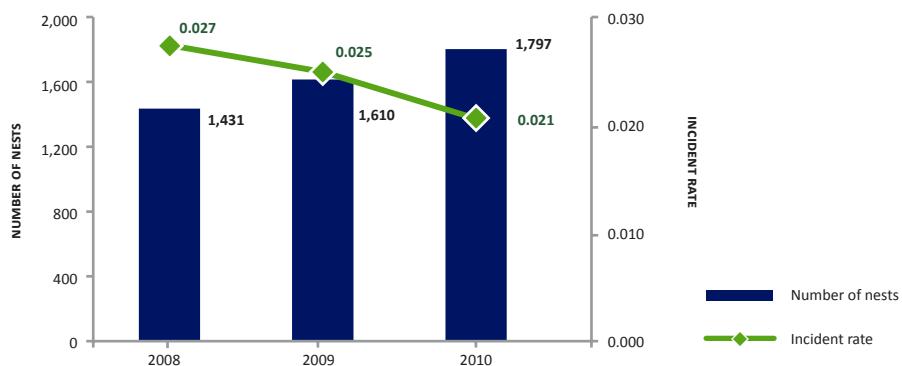


Birdlife

In 2010, we continued to implement control actions of the white stork nesting with the following initiatives:

- assembly of 724 anti-perching devices;
- assembly of 124 nesting platforms;
- transfer of 66 white stork nests to platforms built in low risk locations;
- set-up of 5,414 equipments to reduce bird collision.

As a result of measures taken over the years, the rate of incidents involving the white stork has decreased. In 2010, there were 0.021 incidents per kilometre of line circuit, which corresponds to 37 incidents in 1,797 nests, 17% less than in the previous year.



The area occupied with the infrastructure of the national electricity transmission grid includes areas whose habitat is potentially occupied by 44 species classified according to the Red List of Threatened Species of the International Union for Conservation of Nature (IUCN) in the following categories:

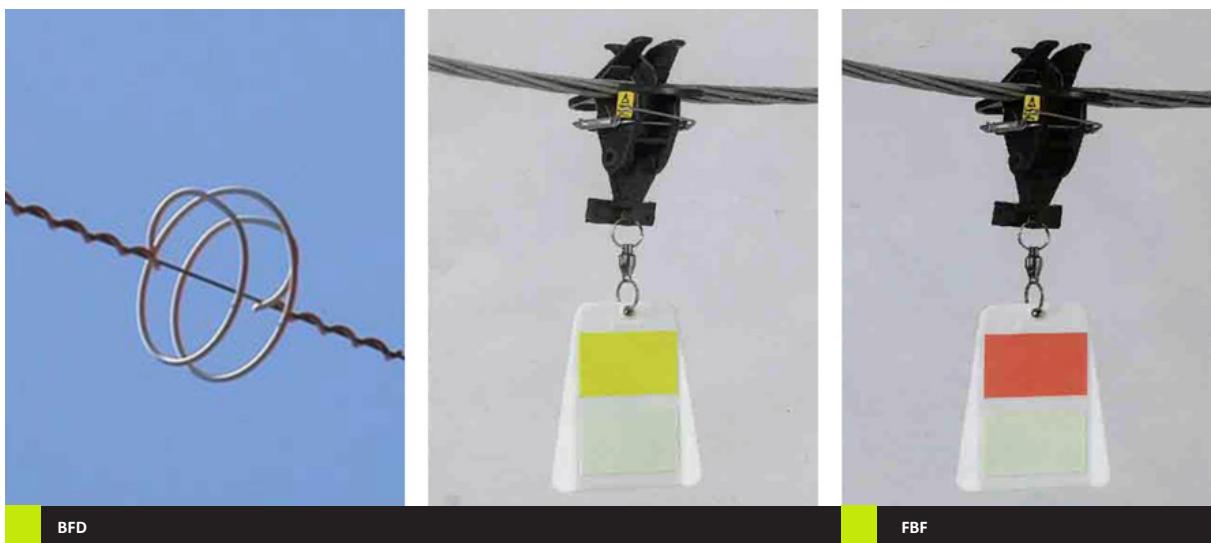
IUCN CLASSIFICATION	NUMBER OF THREATENED SPECIES	
	2009	2010
Critically endangered	2	2
Endangered	2	2
Vulnerable	17	17
Near threatened	28	23

We are concerned with the coexistence of birds and overhead electric lines, given the possibility of birds colliding with the cables of very high voltage overhead lines. We use anti-collision signalling devices in the electricity transmission lines that pass through sensitive locations.

These devices are bird-saving spirals or anti-collision spirals Bird Flight Diverters (BFD) and are set up in guard cables with the purpose of making them more visible by birds.

In addition, we tried Firefly Bird Flappers (FBF), new devices to be implemented in the Ferreira do Alentejo-Évora and Palmela-Évora lines, both at 150 kV, where the signalling of 60 kilometres in each identified line beyond the control areas is expected, with 30 kilometres of signalling with BDF and 30 kilometres with FBF signalling.

In March 2008, we joined Business and Biodiversity to promote the preservation of nature, namely in the execution of actions to mitigate identified impacts on bird species.



PPDA Rede
Eléctrica

LIFE Steppe birds project



The LIFE Steppe birds project – “Preservation of the bustard (*Otis tarda*), the little bustard (*Tetrax tetrax*) and the lesser krestrel (*Falco naumanni*) in the cereal steppes of Baixo Alentejo” aims to actively contribute to the preservation of these three steppe bird species.

According to the most recent progress report, drafted by the Portuguese league for the protection of nature (LPN), the project is achieving



Signalling of a fence with devices

defined environmental goals, since it is positively contributing to the preservation of the three targeted species by signalling electricity lines, setting up and signalling fences, installing drinking fountains and providing environmental education.

Appendices

Energy glossary

CAE	PDIR
Power Purchase Agreements	National Transmission Network, Storage Infrastructure and LNG terminal Development and Investment Plan
CEER	PDIRT
Council of European Energy Regulators	Electricity Transmission Grid Development and Investment Plan
CER	PNALE
Certified Emissions Reductions	Portuguese Plan for the Award of CO ₂ Emission Licences
CIGRÉ	PPDA
<i>Conseil International des Grands Réseaux Électriques</i>	Environmental performance plan
EEPR	PRE
European Energy Programme for Recovery	Subsidised regime producers
EIT	PRO
Equivalent Interruption Time	Standard producers
ENE 2020	RECS
National Strategy for Energy 2020	Renewable Energy Certificate System
ENTSO-E	REE
European Network of Transmission System Operators for Electricity	<i>Red Eléctrica de España</i>
ENTSO-G	RES
European Network of Transmission System Operators for Gas	Renewable energy sources
ERGEG	RNT
European Regulators Group for Electricity and Gas	National Electricity Transmission Grid
ERSE	RNTGN
Portuguese regulator of energy services	National Natural Gas Transmission Network
EU ETS	RNTIAT
European Union Emission Trading Scheme	National Natural Gas Transmission Network, Storage infrastructure and LNG terminals
GIE	SEN
Gas Infrastructure Europe	National Electricity System
GRMS	SEP
Gas Regulating and Metering Station	Public Electricity Supply System
HV	SNGN
High voltage	National Natural Gas System
IEP	TSO
Internal Emergency Plans	Transmission System Operators
LNG	VHV
Liquefied natural gas	Very high voltage
MIBEL	
Iberian Electricity Market	
MIBGÁS	
Iberian Natural Gas Market	
NG	
Natural gas	
OMEL	
<i>Operador del Mercado Ibérico de Energía – Polo Español, s.a.</i>	
OMI	
Operator of the Iberian Energy Market	
OMIP	
Operator of the Iberian Energy Market (Portuguese centre), S.A.	

GRI index

INDICATOR	GC	NUMBER OF PAGE – ASSESSMENT
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1.2 Impacts, risks and opportunities		Pages 5, 6, 19, 39, 40, 41
ORGANISATIONAL PROFILE		
2.1 Name of the reporting organisation		Page 2
2.2 Primary brands, products and/or services		Pages 9, 10
2.3 Operational structure		Page 10
2.4 Location of the organisation's headquarters		Page 86
2.5 Countries in which the organisation operates		Pages 14, 15
2.6 Nature of ownership and legal form		Page 2
2.7 Markets served		Pages 9, 10
2.8 Scale of reporting organisation		Pages 7, 8
2.9 Significant changes during the reporting period		Pages 4, 10, 47
2.10 Awards received		Special mention for the work developed in CIGRÉ, the sc c3 committee (Study Committee System Environmental Performance) Page 4
EU1 Installed capacity (MW), broken down by energy source and by country or regulatory regime		REN's businesses do not include energy production. Not applicable.
EU2 Net energy output broken down by energy source and by country or regulatory regime		REN's businesses do not include energy production. Not applicable.
EU3 Number of residential, industrial and commercial clients		REN's businesses do not include energy production. Not applicable.
EU4 Length of transmission and transportation lines		Page 7
EU5 Allocation of CO2 emission licences by country and regime		REN's businesses do not include energy production and is not subject to the allocation of emission licences. Not applicable.
REPORT PARAMETERS		
Report profile		
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3.3 Reporting cycle		Page 2
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SCOPE AND BOUNDARY OF THE REPORT		
3.5 Definition of report content		Page 2
3.6 Boundary of the report		Page 2
3.7 Specific limitations		Page 2
3.8 Basis for reporting		Page 2
3.9 Data measurement techniques and the bases of calculation		Pages 2, 80, 81
3.10 Re-statements of information provided in earlier reports		There were no changes when compared to previous reports.
3.11 Significant changes		There were no changes when compared to previous reports.
GRI CONTENT INDEX		
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3.13 Policy and current practice with regard to seeking external assurance for the report		Pages 2, 83, 84, 85

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4.4	Communication mechanisms for shareholders and employees	Pages 19, 20
4.5	Linkage between compensation and the organisation's performance	Page 30 Page 28 of the corporate governance report
4.6	Conflicts of interest	Page 23 Page 11 of the corporate governance report
4.7	Qualifications and expertise of directors	Pages 42, 43, 63-67 of the corporate governance report
4.8	Mission, values, codes of conducts and principles	Pages 3, 12, 23
4.9	Supervision processes of the economic, environmental and social performance	Pages 21-23, 29, 33, 34 Pages 42-45 of the corporate governance report
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4.11	Approach to the principle of precaution	7 Pages 21-23, 34, 35, 54-58
4.12	Participation in initiatives that the organisation subscribes	7 Pages 4, 20
4.13	Participation in associations and national/international entities	7 Page 49
STAKEHOLDER ENGAGEMENT		
4.14	List of stakeholder groups	Page 19
4.15	Basis for identification of stakeholders	Page 18
4.16	Approaches to stakeholder engagement	Page 20
4.17	Key topics and concerns of stakeholders and answer	Pages 19, 20

Economic performance

INDICATOR	GC	NUMBER OF PAGE – ASSESSMENT
Management approach		Pages 5, 6, 11, 21, 22, 23, 53
Element: availability and reliability		
EU6 Sectorial Availability and reliability in energy supply		Page 43
Element: management demand		
EU7 Sectorial Programmes of demand management, including residential, commercial and industrial programme		The nature of REN's businesses does not allow the development of demand management programmes.
Element: research and development		
EU8 Sectorial Research and development approach		Pages 48, 49
Element: shutdown of plants		
EU9 Sectorial Provisions for the shutdown of nuclear plants		In Portugal, there are no nuclear plants.
Element: economic performance		
EC1 Core Creation and distribution of value		Page 7 Pages 11 and 53 of the annual report
EC2 Core Financial implications, risk assessment and opportunities arising from climate change	7	We identify the risks and opportunities arising from climate change, though we have not yet assessed the financial implications. The development of a risk management system for the entire REN Group and the assessment of financial consequences are under way. Our expectations are to fully report the indicator in 2012. Pages 64, 65 Partial answer to the indicator
EC3 Core Coverage of the organisation's defined benefit plan obligations		Page 28 AR Pages 81 and 122, appended note 20, of the annual report
EC4 Core Financial assistance to capital spending		Page 48 Page 85 of the annual report
Element: market presence		
EC5 Add Ratio of standard entry level and the national minimum wage	6	The minimum wage at REN is 1.47 times the national minimum wage in 2010 (475€).
EC6 Core Spending on locally-based suppliers		The process for contracting goods, services and works is based on the rules of public contracting, namely the Code for Public Contracts. This process entails restricted calls for tenders issued to companies on a list of qualified suppliers for different types of supply. In 2010, the average payment period was 50 to 80 days.
EC7 Core Hiring of senior managers	6	REN has no policy limiting hiring of senior management from a particular region of Portugal, the only country in which it operates.
Element: indirect economic impact		
EC8 Core Development and impact of commercial investments in the community, not charged or in kind		Pages 35-38
EC9 Add Portrayal of the indirect economic impacts significant to public benefit		Pages 50, 51 Partial indicator
Element: availability and reliability		
EC10 Sectorial Long-term coverage of demand (including reserve)		Pages 45, 46
Element: demand management		
EC11 Sectorial Average generation efficiency by energy source and by country or regulatory system		REN does not generate energy. Therefore, this analysis is not made.

Element: system efficiency

EC12 Sectorial Efficiency in energy transportation and distribution Page 43

Environmental performance

INDICATOR			GC	NUMBER OF PAGE – ASSESSMENT
Management approach			Pages 5, 6, 52-56	
Element: materials				
EN1	Core	Materials used	8	Page 60
EN2	Core	Percentage of recycled materials used	8,9	Page 60
Element: energy				
EN3	Core	Direct consumption of energy	Page 61	
EN4	Core	Indirect consumption of energy	Page 61	
			Our electricity supplier is EDP Universal and information on primary energy related to electricity production may be read at:	
			http://www.edpsu.pt/pt/origemdaenergia/ Pages/OrigensdaEnergia.aspx	
EN5	Add	Energy conservation and efficiency improvements	8,9	Page 65
EN6	Add	Initiatives to provide products and services based on energy efficiency or on renewable energy sources and decrease in consumption achieved	8,9	Page 65
EN7	Add	Initiatives to reduce indirect energy consumption and reductions achieved	8,9	Page 65
Element: water				
EN8	Core	Total water consumption	8	Page 63
EN9	Add	Affected water resources	8	Page 63
EN10	Add	Recycled and reused water	8,9	Page 63
Element: biodiversity				
EN11	Core	Land in protected areas or in areas of high biodiversity value outside protected areas	8	Pages 66-70
EU13	Sectorial	Comparison of the biodiversity of recovered habitats to the biodiversity of original habitats	REN implements monitoring plans at the sites of work on lines and substations for high-impact environmental aspects. REN does not have information on the original state of the habitats where old facilities are located.	
			Pages 54-60	
EN12	Core	Significant impacts on protected areas or areas of high biodiversity value outside protected areas	Pages 59, 60, 67	
EN13	Add	Protected or restored habitats	8	Pages 56-60, 67
EN14	Add	Management of impacts on biodiversity	8	Pages 52, 53, 54-60, 67-70
EN15	Add	Number of species referred in the Red List of the IUCN and in the list of national conservation of species with habitats in areas affected by REN	8	Page 69
Element: emissions, effluents and waste				
EN16	Core	Direct and indirect emissions of greenhouse gases	Pages 61, 62	

EN17	Core	Other indirect emissions of greenhouse gases	8	REN does not yet have internal mechanisms for quantifying greenhouse gas emissions from travel suppliers. However, in the next Sustainability Report, REN will report greenhouse gas emissions related to plane journeys made by employees of the Company under their professional activity.
Partial indicator				
EN18	Essencial to REN's sector	Initiatives to reduce greenhouse gas emissions	8,9	Page 65
EN19	Core	Emission of substances that deplete the ozone layer	8	We do not make products or have services that use substances that deplete the ozone layer. We have been replacing the ventilation equipments containing harmful gases for the ozone layer according to our equipment replacement plan.
EN20	Core	NO _x , SO _x and other significant atmospheric emissions	8	As a result of our activities, we do not have significant emissions of NO _x and SO _x . In addition, this indicator was not considered relevant by our stakeholders.
EN21	Core	Rejection of waste water	8	Page 63
EN22	Core	Production of waste by type and final destiny	8	Page 63
EN23	Core	Occurrence of spills during activities	8	In 2010, 13 spills of hazardous substances, two of which were classified as significant, took place. Of significant spills recorded, we can only measure one, whose spill was up 600 litres of oil in the soil and whose impact was considered little serious. In 2011, our goal, under continuous improvement, is to raise the awareness of REN's employees and environmental monitoring teams to always record the spilled amounts of hazardous substances.
EN24	Add	Production of waste according to the Basel Convention	8	This indicator is not applicable, since waste produced by REN is sent to Portuguese waste management operators.
EN25	Add	Water resources and habitats affected by discharges of waste water	8	Page 63
Element: products and services				
EN26	Core	Initiatives to assess and mitigate environmental impacts	8,9	Pages 52-60
EN27	Core	Recovered percentage of sold products and respective packaging	8,9	This indicator is not applicable to REN's businesses, since the Company does not sell packaged products.
Element: compliance				
EN28	Core	Sanctions and fines for non-compliance with legislation on environmental matters	8	In 2010, 16 environmental administrative offences were charged against REN, which are still under way. Eleven environmental administrative offences were closed, in which REN was deemed not guilty (no fine). Overall, 36 environmental administrative offences from previous years were not solved in 2010.
Element: transport				
EN29	Add	Environmental impacts arising from transport	8	Page 61
Element: general				
EN30	Add	Costs and investments on environmental protection	8,9	Page 52

Social performance – labour practices

INDICATOR			GC	NUMBER OF PAGE – ASSESSMENT
Management approach			Pages 5, 6, 25, 28-32, 53	
Element: employment				
EU14	Sectorial	Retention and renewal of skilled workforce		Pages 26-28, 31
LA1	Core	Workforce by type of employment		There are no part-time employees. Page 25
LA2	Core	Rate of employee turnover by age group, gender and region		Pages 25,26 The turnover rate by region does not apply to REN as it only operates in Portugal. Partial indicator
EU15	Sectorial	Percentage of employees eligible to retire in the next 5 to 10 years		Page 25
EU16	Sectorial	Policies and requirements related to health and safety of employees, contractors and subcontractors		Pages 32-34
EU17	Sectorial	Average of outsourced employees		Page 34
EU18	Sectorial	Training of outsourced employees		Page 33
LA3	Add	Benefits for full-time employees	6	Page 28
Element: relationships between employees and management				
LA4	Core	Employees covered by collective bargaining agreements	3	Page 31
LA5	Core	Minimum notice periods regarding operational changes	3	The notice periods defined are those arising from the General Law of Labour.
Element: health and safety at work				
LA6	Add	Employees represented in safety and occupational health committees		Page 32
LA7	Core	Rate of injury, occupational diseases, lost days, absenteeism and number of work-related fatalities		Page 34
LA8	Core	Programmes related to serious diseases		Page 33
LA9	Add	Health and safety topics covered in formal agreements with trade unions		The topics covered are described in Title xv and appendix iv of the Collective Bargaining Agreement.
Element: training				
LA10	Core	Annual training per employee		Page 27
LA11	Add	Programmes of skill management		Pages 26-28
LA12	Add	Employees receiving performance and career-development assessment		Page 28
Element: diversity and equal opportunities				
LA13	Core	Employees by diversity indicators	1,6	Pages 25, 26 At REN, there are 3 employees with disabilities.
LA14	Core	Ratio of basic salary of men and women by employee category	1,6	Our Code of Conduct comprises equality of opportunities for all employees. Salaries at REN depend on occupational category and on skills demonstrated rather than on gender. The salary ratio is 1 for all functional categories.

Social performance – human rights

INDICATOR			GC	NUMBER OF PAGE – ASSESSMENT
Management approach			Pages 3, 5, 6, 23, 53	
Element: investment and procurement practices				
HR1	Core	Investment agreements with human rights clauses	1,2, 4,5, 6	According to REN Gasodutos's tender books and the construction site's general regulation, the contractor must present an authentic statement which states not to hire at any time, directly or through subcontractors, illegal or child labour. In the contracts of construction and maintenance of the electrical grid, documents related to the General Contract Conditions and Technical Specifications contain demands that guarantee the non-existence of illegal workforce. In REN Armazenagem and Atlântico alike, technical staff from service providers is previously identified and subject to work permit. Both companies are certified according to the Seveso Directive and are subject to the annual assurance audit. However, in Portugal these aspects are included in the Constitution and in the General Law on Labour. Therefore, the remaining tender books used by REN do not have explicit requirements on human rights.
HR2	Core	Suppliers assessed on human rights	1,2, 4,5, 6	Compliance with legislation is checked during supervision subcontracting and during audits. REN abides by Portuguese legislation and follows human rights, which are reflected in our Code of Conduct (see answer HR1).
HR3	Add	Training of employees regarding human rights	1,4, 5	Our Code of Conduct includes respect for Human Rights (see answer HR2).
Element: no-discrimination				
HR4	Core	Incidents of discrimination and actions taken	1,6	REN obeys Portuguese laws on human rights and is a signatory of the United Nations Global Compact Principles. No incidents of discrimination were identified in 2010.
Element: freedom of association and collective bargaining				
HR5	Core	Right to freedom of association and collective bargaining	1,3	Pages 23, 31 We ensure the right to freedom of association and collective bargaining in accordance with the ethical principles and standards of conduct established in the Code of Conduct. In 2010, situations where the right to freedom of association and collective bargaining was at risk were not identified.
Element: child labour				
HR6	Core	Risk of child labour	1,5	REN abides by Portuguese law, which forbids child labour. REN also subscribes to the United Nations Global Compact Principles. Compliance with legislation is validated during supervision and audits.
Element: forced and compulsory labour				
HR7	Core	Risk of forced and compulsory labour	1,4	REN abides by Portuguese law, which forbids forced labour. REN also subscribes to the United Nations Global Compact Principles. Compliance with legislation is validated during supervision and audits.
Element: security practices				
HR8	Add	Security personnel trained in human rights	1,2	REN abides by Portuguese law on human rights and subscribes the Union Nations Global Compact Principles.
Element: indigenous rights				
HR9	Add	Cases of violation of indigenous peoples' rights	1	REN operates in Portugal, so this indicator is not applicable.

Social performance – society

INDICATOR			GC	NUMBER OF PAGE – ASSESSMENT
Management approach			Pages 5, 6, 35-38, 53	
Element: community				
EU19	Sectorial	Decision making processes participated by communities		Pages 54, 55
EU20	Sectorial	Management of impacts arising from involuntary changes/displacements		The notice periods defined are those arising from the General Law of Labour. The measures defined in Chapters II, section I of REN's Collective Bargaining Agreement are fulfilled.
EU21	Sectorial	Planning and response to disaster/emergency situations		Pages 21-23, 33, 34
SO1	Core	Management of impact on communities		Pages 24, 38
EU22	Sectorial	Displacement of people as a result of the expansion or construction of production centres and transport lines, in an economic and physics point of view		The construction of REN's infrastructure in Portugal has a strong component supported by outsourcing. Most outsourcing is made locally.
Element: corruption				
SO2	Core	Assessment of corruption risks	10	The Group's accounts are subject to external audit and legal certification, under applicable standards. Therefore, the company does not analyse the risk of corruption in its business units or activities. At present, there are no corruption charges in the inquiry phase against any of the Group companies. REN subscribed the anti-corruption letter (September 2009).
SO3	Core	Training of employees in anti-corruption practices	10	Although the company did not organise any specific training session on anti-corruption policies and procedures, the Whistleblowing Policy sets out that "employees must report to any member of the management and supervisory bodies, especially to the audit committee, any irregular practices coming to their knowledge or that they reason to suspect in order to prevent irregularities that may cause financial losses or damage REN's image". In addition, REN signed the United Nations Global Compact Principles.
SO4	Core	Actions taken in response to incidents of corruption	10	Page 23
Element: public policy				
SO5	Core	Stance on public policy and the practice of lobbying	10	REN helps in government studies and forums for the sector. In addition, REN participates in several projects and working groups of international organisations in the electricity sector, namely EURELECTRIC, CIGRÉ and ETSO, which actively influence the formulation of European policies and foster good practices in the sector.
SO6	Add	Financial contributions to political parties		REN does not fund political parties. It is forbidden by law for companies in Portugal.
Element: anti-competitive behaviour				
SO7	Add	Legal actions for anti-competitive behaviour, anti-trust and monopoly practices		REN is the only concession holder for energy transmission in Portugal and its activity is regulated. Therefore, REN plays no part in pricing.
Elements: compliance				
SO8	Core	Monetary amount of significant fines and total number of non-monetary fines due to the non-fulfilment of laws and regulations		In 2010, there were no fines or sanctions.

Social performance – product

INDICATOR		GC	NUMBER OF PAGE – ASSESSMENT
Management approach		Pages 5, 6, 23, 53	
Element: accessibility			
EU23	Sectorial	Programmes, some of which in partnership with the Government, to improve and maintain access to electrical services	See the answer to indicator s05.
Element: availability of information			
EU24		Practices to address language, cultural, educational and physical barriers to access and use electrical services in safe conditions	REN does not distribute energy for retail or to end consumers. Nonetheless, whenever necessary, REN publishes information for the public at large on relevant issues related to the impact of energy transportation.
Element: customer health and safety			
PR1	Core	Health and safety related to products and services	Pages 23, 42, 43
PR2	Add	Incidents of non-compliance with regulations related to the impact of products and services on health and safety	REN did not record any incidents of non-compliance related to the health and safety of clients.
EU25	Sectorial	Number of injured people and deaths, including diseases, inflicted by REN's infrastructure to people external to the Company	There were no occurrences in 2010.
Element: product and service labelling			
PR3	Core	Information on products and services required by regulations	8 Pages 42, 43
PR4	Add	Cases of non-compliance with regulations concerning products and services and labelling	8 There were no cases of non-conformity regarding information provided by REN in 2010.
PR5	Add	Customer satisfaction	Pages 43, 44
Element: marketing communications			
PR6	Core	Programmes for adherence to voluntary codes related to marketing communications, including advertising, promotion and sponsorship	The principles to which REN abides in terms of communication are included in the Code of Conduct (article 14º).
PR7	Add	Number of incidents of non-compliance with regulations related to marketing communications, including advertising, promotion and sponsorship	In 2010, there were no incidents of non-compliance related to communication, marketing, advertising, promotion and sponsorship.
Element: customer privacy			
PR8	Add	Complaints regarding breach of customer privacy	REN complies with the Portuguese legislation regarding confidentiality of information. This principle is included in REN's Code of Conduct. There were no complaints of breach of customer privacy.
Element: compliance			
PR9	Core	Fines for non-compliance concerning the provision and use of products and services	REN was not fined due to the illegal unfulfilment of the provision and use of products and services, in 2010.
Element: accessibility			
EU26	Sectorial	Percentage of population not supplied in licenced distribution areas by rural and urban areas	REN's activities do not include distribution and so this indicator is not applicable.
EU27	Sectorial	Number of residential disconnections for non-payment by duration of disconnection	REN's activities do not include distribution and so this indicator is not applicable.
EU28	Sectorial	Interruption of supply	Page 43
EU29	Sectorial	Average power outage duration	Page 43
EU30	Sectorial	Average plant availability factor by energy source, country and regulatory regime	REN's activities do not include distribution and so this indicator is not applicable.

Calculation criteria

INDICATOR	DEFINITION
EN16 Direct and indirect emissions of greenhouse gas emissions	Total amount of greenhouse gas emissions, which are emitted both directly (SF_6 used as dielectric isolator, CH_4 of pipeline purges and CO_2 of boiler burning) and indirectly through electricity consumption and grid losses. In 2010, the emission factor used was of 226.74gCO ₂ /kwh, the equivalent of the amount supplied by EDP Serviço Universal, REN's energy supplier (source: http://www.edpsu.pt/pt/origemdaenergia).
EN21 Wastewater discharge	Wastewater discharge due to the regasification of LNG and leaching of natural gas storage caverns for underground storage.
LA7 Absenteeism rate	Quotient between the sum of paid absences (due to disease, accident, maternity or other reasons) and unpaid absences, and the total number of theoretical working hours.
EU28 Average power interruption frequency (SAIFI)	Quotient of total interruptions at delivery points during a certain period by total number of delivery points in the same period. Electricity: The average power interruption frequency is the average number of accidental interruptions lasting over three minutes at delivery points in a certain period of time. Natural gas: The average power interruption frequency is the number of accidental interruptions at delivery points in a certain period of time (generally one year).
EU29 Average power interruption duration (SAIDI)	Quotient of total interruptions at delivery points during a certain period by total number of delivery points in the same period. Electricity: The average power interruption duration for a certain time period (generally one year) is the average time of accidental interruptions lasting over three minutes at delivery points. Natural gas: The average power interruption duration (generally one year) is the average time of accidental interruptions at delivery points.

GRI A+ statement



Statement GRI Application Level Check

GRI hereby states that **REN-Redes Energéticas Nacionais, SGPS, S.A.** has presented its report "Sustainability Report 2010" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level A+.

GRI Application Levels communicate the extent to which the content of the G3 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3 Guidelines.

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 7 July 2011

Nelmaria Arbex
Deputy Chief Executive
Global Reporting Initiative



The "+" has been added to this Application Level because REN-Redes Energéticas Nacionais, SGPS, S.A. has submitted this report for external assurance. GRI accepts the reporter's own criteria for choosing the relevant assurance provider.

The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance.
www.globalreporting.org

***Disclaimer:** Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 9 May 2011. GRI explicitly excludes the statement being applied to any later changes to such material.*

Assurance report



Deloitte & Associados, SROC S.A.
Inscrição na OROC nº 43
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REVIEW REPORT

Free translation of a report originally issued in Portuguese.

To the Board of Directors and the stakeholders of REN – Redes Energéticas Nacionais, SGPS, SA.

Introduction

1. We have performed a review to the Sustainability Report 2010 of REN – Redes Energéticas Nacionais, in order to verify:
 - If it was prepared in order to assure adherence to application level A+ of the 2006 v3.0 version of the Global Reporting Initiative Guidelines considering the electric utilities supplement, which covered the conformity and reliability of the contents included in the Sustainability Report relating to the “Strategy and Profile” items and of 2010 data relating to the core performance indicators set out in these guidelines, including the sector specific ones; and
 - The information provided by REN about the application of the principles of Inclusivity, Materiality and Responsiveness established in AA1000 *AccountAbility Principles Standard* 2008, as described in the Sustainability Report, in chapters “About the Report”, “2.1 Sustainability Strategy”, and “2.2 Stakeholder Engagement”.

Responsibilities

2. The Board of Directors of REN is responsible for preparing the Sustainability Report, as well as defining, implementing and carrying out adequate processes, procedures and criteria for collecting, processing, presenting and validating the information contained therein. Our responsibility is to express an opinion, based on the procedures referred to below, on the information referred to above.

Scope

3. We conducted our review in accordance with the International Standard on Assurance Engagements 3000 – ISAE 3000, issued by the *International Auditing and Assurance Standards Board*, for assurance engagements other than audit or limited reviews of historical financial information, for a limited level of assurance. Was also considered *AccountAbility 1000 Assurance Standard* 2008, for type 2 reviews and a moderate level of assurance.
4. These standards require that we plan and perform procedures and apply audit skills and techniques, in order to obtain an adequate understanding of the subject matter and, considering the circumstances, to obtain sufficient appropriate evidence on which to base our opinion. In a limited assurance engagement (equivalent to a moderate assurance level), the evidence-gathering procedures consist primarily of inquiries of company personnel and analytical procedures, including tests on a sample basis. The procedures performed are more limited than in an engagement aimed at obtaining reasonable assurance and, therefore, less assurance is obtained.

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5. The main procedures performed were:

- Interview of those responsible in REN for the management of sustainability, preparation of the Sustainability Report and for the data reported, in order to know and understand the management principles, as well as the systems and procedures applied;
- Review of compliance of the Sustainability Report content, or other documents, as stated in the GRI Index, with the GRI Guidelines requirements for level A+;
- Review of the contents of the Sustainability Report relating to adherence to the principles of Inclusivity, Materiality and Responsiveness of AA1000APS;
- Review of the processes, criteria and systems in place to collect, accumulate, present and validate the quantitative data for 2010, relating to the indicators reviewed by us;
- Analytical data review, and tests, on a sample basis, of the company's calculations relating to the quantitative data subject to our review, as well as tests to confirm the quantitative and qualitative data included in the scope of our work, by obtaining and reviewing related evidence thereof; and
- Verification of the consistency of the information included in the Sustainability Report with the results of our work and that it does not contradict any relevant data provided by REN in its Annual Report 2010.

Opinion

6. Based on the work performed, as described in paragraph 5 above, which was executed to obtain a moderate level of assurance, nothing has come to our attention that causes us to believe that:

- The Sustainability Report 2010 of REN has not been prepared, in all material respects, in order to assure adherence to application level A+ of the GRI Guidelines and is not free from significant errors in the revised data; and
- REN does not apply, in all material respects, the principles of Inclusivity, Materiality and Responsiveness defined in standard AA1000 APS, as described in the Sustainability Report.

Independence and competence of the team

7. We comply with the policies of independence of Deloitte, which are based on and comply with the Code of Ethics of the *International Federation of Accountants*.
8. Our team consists of Deloitte employees who have the skills and experience required to perform this work.



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Observations and recommendations

9. The following main improvement opportunities, which do not affect our conclusions, were communicated to REN:
 - Principle of Inclusivity: Formalize the periodicity of the review of stakeholders mapping and for evaluating the effectiveness of mechanisms for the participation and communication with them;
 - Principle of Materiality: Define and communicate a frequency of updating of the materiality analysis; and
 - Principle of Responsiveness: Include in future sustainability reports further analysis on compliance with the principles of AA1000APS, as well as, demonstrate in greater detail the stakeholders questions and suggestions for the year under review and the answers to these by REN.

Lisbon, 2 May 2011

Deloitte & Associados, SROC S.A.

Deloitte & Associados, SROC S.A.
Represented by João Carlos Frade



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