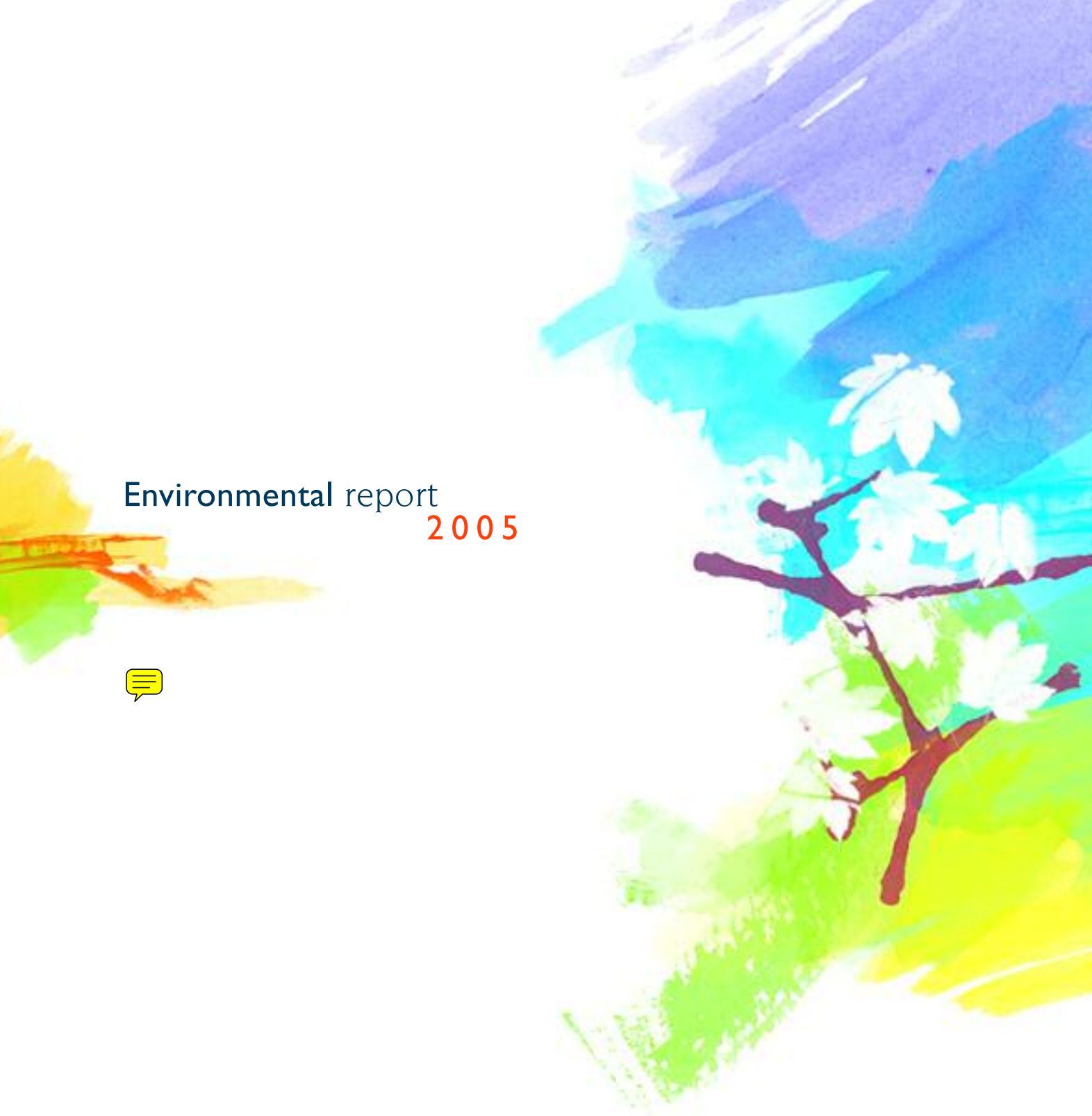
Environmental report 2005



RED ELÉCTRICA DE ESPAÑA

RED ELÉCTRICA DE ESPAÑA

CONTENTS

PRESENTATION

The search for profitability and growth and ensuring the satisfaction of shareholders, employees and clients are not the only objectives of companies in this day and age. They are, of course, important priorities, but the creation of value must also be directed towards society and the environment, and this means that social and environmental aspects are taking on greater importance in the policies and strategies of corporations.

Red Eléctrica is well aware of this, and for this reason we have always maintained our firm and decided commitment to integrate environmental protection into the normal development of our activities. This has led us to tackle environmental problems from a standpoint of ethical commitment towards society and our objective is to strike an efficient balance between our corporate activities and sustained development.

In complying with this objective during 2005, we have continued to conduct studies on environmental repercussions in all new facility projects, beyond our legal obligations as well as continuing to apply strict environmental criteria in all our activities, in accordance with the principles assumed in our environmental policy. In this way, we have reduced all ecological impacts caused by our facilities, irrespective of whether or not they are located in cities or rural areas.

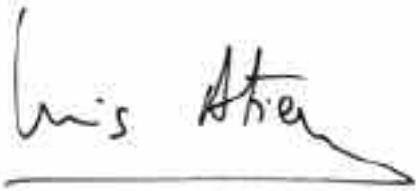
In this regard, all our projects have been carried out in accordance with the strictest environmental criteria and have been integrated into the community with the greatest possible social consensus. A good example of this is the setting up of the second underwater interconnection facility with Morocco (known as the REMO Project). The positive environmental declaration for this project was put into effect in 2005. This project, declared of community interest by the European Union, has been developed based firstly on a series of environmental actions that include a study on the possible effects of the electrical cables on *Cymodocea nodosa* oceanic meadows, and secondly, on a series of compensatory auxiliary measures to ensure the adequate integration of the project into the community.

In 2005, we have also dedicated a great deal of resources to environmental research. In this field, we should mention the actions taken to protect birdlife, and more specifically, the steppe-land birds in Andalusia; studies

on the electromagnetic fields in which research has been conducted into the transmission of current density induced in the main organs of an experimental animal; and new research has been started on the analysis of the noise and light pollution generated by electrical stations.

Likewise, we have continued to cooperate with different bodies for the purpose of promoting environmental development in their respective fields of activity. Consequently, in 2005 we have established collaborative projects with the autonomous communities of Aragón, Extremadura and Murcia, with the Higher Council of Scientific Research, with the Spanish Ornithological Society, with the Doñana 21 Foundation, with the Association of Environmental Information Journalists and with the Entorno Foundation, among other institutions of renowned prestige.

All these environmental activities we are carrying out to prevent or minimise the impact of our facilities on the environment have enabled us to form a part of the Dow Jones STOXX sustainability index, granting international prestige to our management systems, which are ethical and responsible towards society and the environment. The following pages contain information on all these activities, based on our conviction of having performed an excellent job, and our hope of continuing to improve year after year.



Luis Atienza Serna
Chairman of RED ELÉCTRICA DE ESPAÑA

CHAPTER 1

About RED ELÉCTRICA

We are the electrical energy carrier and the company responsible for operating the Electrical System and managing the transport network.

We operate the electrical system inside and outside the peninsula, guaranteeing the appropriate technical conditions for the constant supply of electricity from the generation centres to the consumption centres, through a transport network that distributes that energy throughout the whole country.

We own the Spanish high voltage electricity transport network. Our facilities consist of electrical control systems that direct and supervise the system operation; through 33,096 kilometres of high voltage transport lines circuit and 2,746 substation positions with a transformation capacity of 55,222 MVA.

Evolution of Red Eléctrica facilities

		2003	2004	2005
Lines (km of circuit)	**Kilometres of circuit**	**27,551**	**27,836**	**33,096**
	400 kV	16,308	16,548	16,808
	220 kV and less	11,243	11,288	16,288
Substations	**Number of positions**	**1,813**	**1,935**	**2,746**
	400 kV	683	740	881
	220 kV and less	1,130	1,195	1,865
	Transformation (MVA)	**32,166**	**36,153**	**55,222**

All the activities we perform are carried out in accordance with a strict Environmental Policy and based on an ethical attitude towards society, integrating environmental protection into business management in order to create lasting value. To achieve this, we have an Environmental Management System (SGMA) that was certified in May 1999 based on the UNE-EN ISO 14.001 guideline, which was registered in the Community Eco-management and Eco-audit System (EMAS) under registration number E-SB-000013 in October 2001.

We are the first business group in the energy sector to obtain the integrated triple quality, environmental and occupational safety and health certificate for all its companies.

In 2005 we started operating in the Dow Jones STOXX Sustainability Indexes, the European list of companies that are committed to sustained development. Our inclusion in this list makes us one of the highest-valued companies in terms of corporate responsibility.

Our Environmental Department is formed by 17 professionals with a varied range of training, who are experts on environmental affairs. These persons actively support all the organisational units in carrying out their everyday activities. Respect for the environment is the responsibility of all employees and all those who collaborate in the

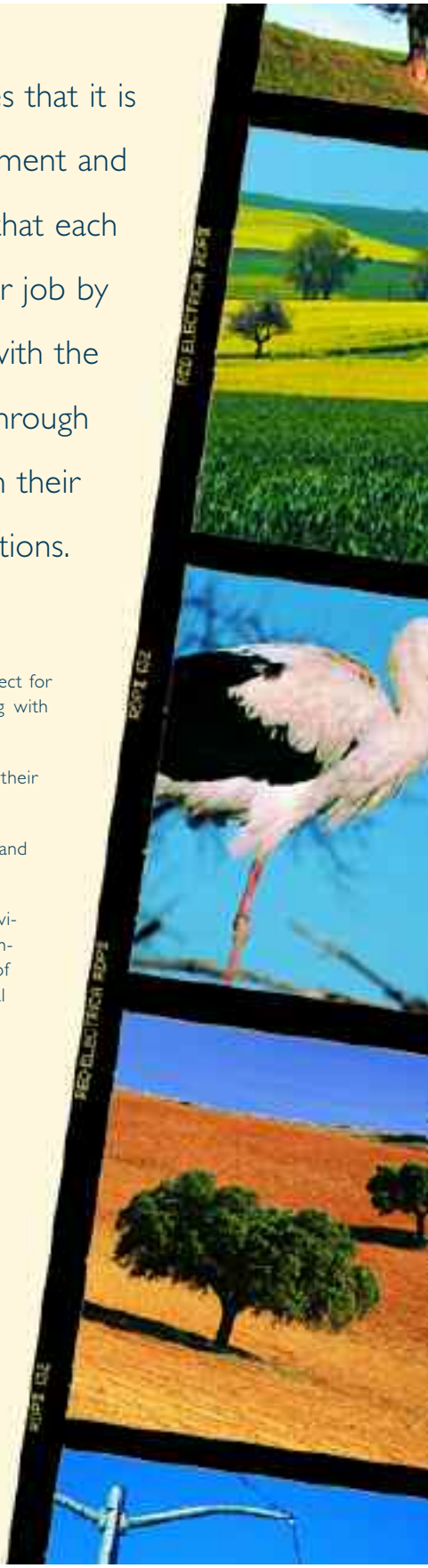
routine development of our activities, contributing to preserving the natural habitat, ensuring correct waste disposal methods and reducing consumption during the course of our work to a minimum.

CHAPTER 2

Environmental policy

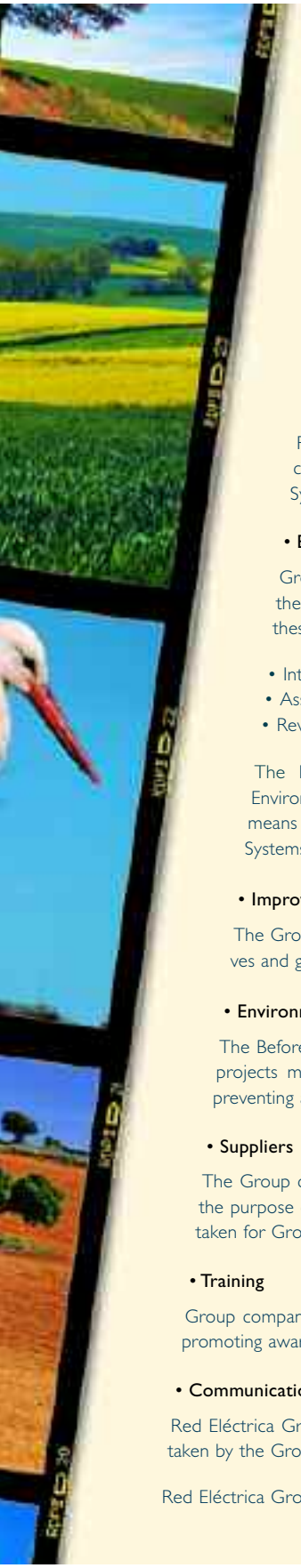
Red Eléctrica Group declares that it is committed to protecting the environment and undertakes to guarantee and ensure that each person in the Group performs their job by conciliating the demands of their work with the maximum respect for the environment, through on-going improvement in complying with their responsibility and functions.

RED ELÉCTRICA GROUP declares that it is committed to protecting the environment and undertakes to guarantee and ensure that each person in the Group performs their job by conciliating the demands of their work with the maximum respect for the Environment, through on-going improvement in complying with their responsibility and functions.



Principles

- To lead the Group towards sustained development by integrating respect for the Environment and the promotion of social progress and wellbeing with economic aspects, in order to create lasting value.
- To achieve Environmental leadership among the Group Companies, in their scope of activity.
- To ensure compliance with the environmental legislation, regulations and guidelines applicable to the Group companies.
- To guarantee that the activities carried out by the Group take the environment into account, in an attempt to prevent or reduce potential harmful repercussions on the environment by evaluating and monitoring of compliance with the Group's Environmental Policy and Environmental Management Systems.
- To set objectives and goals for environmental protection which are in keeping with our commitment to on-going improvement.
- To be familiar with and apply the best possible scientific advances and techniques available in relation to protecting the Environment within the Group's scope of activity.
- To conduct Environmental Studies in all projected new Group facilities.
- To guarantee that suppliers fulfil the environmental requirements demanded by the Group companies.
- To implement permanent activities for training, promoting awareness and motivating the Group's employees on environmental protection.
- To develop communications channels and systems for informing and establishing communications between all interested parties on the actions taken by the Group in respect of the environment.



Directives

• Environmental management system

Red Eléctrica Group will keep its Environmental Management Systems in place for the time it considers necessary, to demonstrate its solid commitment towards protecting the environment.

Red Eléctrica Group will promote the design of Environmental Management Systems based on the UNE-EN-ISO 14.001 guideline.

Red Eléctrica Group will gradually direct its Environmental Management Systems towards complying with the requirements of the Community Environmental Management and Audit System (EMAS).

• Evaluation and monitoring

Group companies will have tools at their disposal for evaluating and monitoring compliance with the Group's Environmental Policy and Environmental Management Systems. The most important of these are:

- Internal audits.
- Assessments of environmental aspects
- Reviews of the Environmental Management Systems

The Management department of each Company will verify the adaptation of the Group's Environmental Policy and its Environmental Management System to the Group/Company strategy, by means of assessing compliance of the Group's Environmental Policy and Environmental Management Systems, and will decide on the ensuing modifications or improvements to be made.

• Improvement

The Group companies will have tools for developing and reviewing the on-going improvement objectives and goals for environmental protection.

• Environmental Studies

The Before undertaking projects for new facilities, Group companies will analyse the repercussions such projects may have from the environmental, social and economic standpoint, setting up all necessary preventing and corrective measures to eliminate or reduce them by conducting the pertinent studies.

• Suppliers

The Group companies will have a methodology in place for assessing, rating and monitoring suppliers, for the purpose of guaranteeing environmental protection in all actions that have environmental repercussions taken for Group companies.

• Training

Group companies will have tools for implementing activities focused on permanent training, motivation and promoting awareness on environmental protection to all their staff.

• Communication

Red Eléctrica Group will develop communications channels and systems for furnishing information on actions taken by the Group in respect of the environment.

Red Eléctrica Group will set up permanent communications channels with all parties involved.

CHAPTER 3

Environmental objetives

Global compliance of the 2005 Environmental Programme was 84.55 %. Below is a chart of the objectives tackled during 2005 with an indication of all those in which compliance was not achieved 100%.

Environmental objetives 2005

Áreas of action		Objectives
SGMA Improvement		Incorporation of the whole Environmental documentation management process into the Documentary Management System.
		SGMA improvement in the facilities of the Balearic and Canary islands.
		Study on the feasibility of applying eco-efficient principles in the activities, processes and facilities of Red Eléctrica. (1)
Birdlife conservation		Agreement with the General Deputation of Aragón: Indication of what was established for the year 2005. (2)
Prevention of pollution	Incorporation of new elements into the SGMA	Environmental inventory and proposal of preventive and corrective measures on the installation of new elements that will be remote controlled directly by Red Eléctrica and integrated into maintenance prior to 30.09.05.
	Reduction in the risk of accidental tipping of waste	Preparation of three trenches in one substation.
		Inventory of 100% of the expansion tanks of machines and proposal for preventive measures, if necessary (those remaining from 2004).
		Implantation of a mechanism for containing leaks in the auxiliary transformer of one substation.(1)
		Completion of the auxiliary transformers inventory and proposal for preventive measures, if necessary.
		Ensure that specific absorbent materials exist for hydrocarbons in all substations in which there are power and/or reactance transformers.
		Compliance of the plan for analysis and elimination of equipment polluted by PCBs.
	Improved emissions control	Plan for measuring electromagnetic fields and noise: Implementing of measures in 30 substations.
		Analysis, selection and purchase of specific software for calculating and preparing noise maps. Adapting of the characteristics of the Red Eléctrica facilities.
		Setting up of a method for performing acoustic studies in substations.
		Proposal of preventing and corrective measures to prevent noise in substations. (1)
		Preparation of a method for evaluating and reducing luminous pollution caused by substations.
	Waste disposal	Execution of the 12 actions for improvement proposed as a result of the activities carried out in 2004. (1)
		Review of the procedure for controlling waste generated in the facilities, in accordance with the proposed actions for improvement.
Reduction of consumption		Definition of new indicators for measuring basic consumptions (units/nº of people).
		Feasibility of an action plan for reducing basic consumptions.
Environmental rating of suppliers		Definition and implementation of a scaled, hierarchical series of rating levels.
		Evaluation of the current Red Eléctrica supplier levels, in accordance with the above series.
Training		Offering the courses foreseen in the 2005 training plan. (1)
Communications		Collaboration agreement with the Association of Environmental Information Journalists (APIA).
		Definition and creation of an "Environmental improvements suggestions box" for all Red Eléctrica employees.
		Publication of "Red Eléctrica y la avifauna: 15 años de investigación aplicada". (Red Eléctric and birdlife: 15 years of applied research). (3)
		Publication of a leaflet containing information on the use of Red Eléctrica substations by the Falco Naumanni in Navarre and Aragón: the importance of this in conserving the species. (3)

(follow in the next page)

Collaboration with parties involved	Collaboration agreement with the Spanish Ornithology Society (SEO/Birdlife).
	Setting up preventive, corrective and compensatory measures for the REMO (Western Mediterreanean Electrical Reinforcement) Project.

(1) This has been carried over to 2006, due to it being impossible to terminate it during the year
(2) 33.4 km of the 34.1 km planned have been signposted
(3) This was carried out, but not within the foreseen term

Lastly, the following chart summarises environmental objectives planned for 2006.

Environmental objectives 2006

Areas of action		Objectives
Environmental Management System Improvement		Environmental policy review.
Birdlife conservation		Analysis of the R+D+I "Save the birds" project results. Termination and conclusions.
Flora conservation		Digital guide of trees and shrubs that are compatible with electric lines.
Pollution prevention	Incorporation of new elements into the SGMA	Environmental inventory and proposed preventive and corrective measures for new elements from INALTA.
	Reduction in the risk of accidental tipping	Construction of 10 trenches and channelling of oil collection in 9 substations from INALTA.
		Application of the pertinent preventive measures in the expansion tanks of the power machines in 10 substations.
		Application of the pertinent preventive measures in the auxiliary transformer of 7 substations.
		Conditioning of oil collection trenches in one substation.
		Preparation of a project for constructing an oil-collecting trench in one substation.
	Improvements in emissions control	Proposed preventive and corrective measures for noise in substations.
		Verification of the evaluation method for luminous contamination caused by substations.
		Feasibility study on reducing the intensity of lighting in substations in operation.
	Waste disposal	Review of the final disposal of waste generated during maintenance and proposed improvements.
Reduction of consumptions		Reduction of total electricity consumption by 5%.
		Reduction of total water consumption by 10%.
		Reduction of total paper consumption by 10%.
		Reduction of total toner consumption by 10%.
Environmental rating of suppliers		Incorporation of the envir. construction certificate into internal guidelines.
		Increase the number of suppliers with certified SGMA by 10%.
Training		Increase the number of employees receiving environmental training by 8%.
Communications		Increase the number of visits to the environmental section of the corporate website by 30%.
		Collaboration agreement with Valladolid Territorial Office of the Environmental Department, of the Castilla y León Regional Government.

CHAPTER 4

Environmental actions

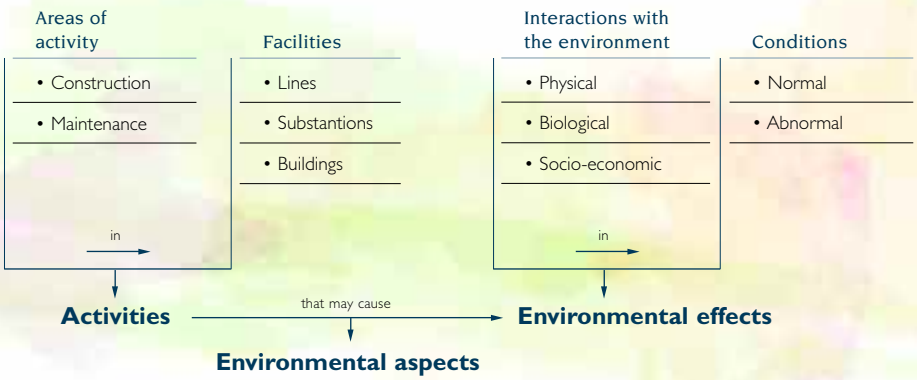
We are committed to the environment in all our operations, integrating environmental protection with the normal development of the activities we perform every day.

During the project phase we carry out environmental studies on all facilities in which we define alternatives that are feasible in technical and economic terms, and have the least possible repercussion on the natural and social environment.

In the construction phase, we perform an exhaustive environmental supervision of all the work in progress, both new facilities and modifications to existing facilities.

During the maintenance phase, we make systematic regular reviews and audits on the facilities in operation, which enables us to define and apply preventive and corrective measures, detect environmental incidents and check the effectiveness of the measures adopted during the construction phase.

In all the project and construction activities, and during maintenance work performed on facilities in operation, we identify and evaluate all direct and indirect environmental repercussions that could interact with the environment and cause a negative impact, both under both normal and abnormal operating conditions.



4.1. Environmental actions in projected facilities

As set forth in our Environmental Policy, we perform environmental studies on all new facility projects. These studies are submitted to the competent environmental Body for processing.

As a result of these studies, in 2005 the Environemtnal Body gave the go-ahead for the construction of the following facilities.

Facilities
2nd Spain-Morocco Circuit
L/ Abanto-Ziérbena E.S. Abanto
L/ Trunking Galapagar-Trunking San Sebastián de los Reyes
L/ Mesón Do Vento-Puentes de García Rodríguez
E/S in E.S. Muruarte- L/ Cordobilla-Orcoyen
New E/S in E.S. Galapagar
L/ Penagos-Güeñes
L/ Soto-Penagos
E.S. Penagos

During the year, a total of 53 projects have been processed with the competent Environmental Authorities, with 31 remaining pending at year-end.

(SEE MAP IN ANNEXE 1)

4.2. Environmental actions in facilities under construction

Environmental supervision has been performed during the construction of new lines and electric substations and also in extensions, renovations and improvements made to facilities already in operation. This supervision consists mainly of checking the application of the preventive and corrective measures defined in the project and verifying their efficacy.

In 2005 we performed environmental supervision work on the construction of 7 new lines, 10 new substations and the extension, renovation or improvement of 9 lines and 146 substations. (SEE MAP IN ANNEXE 1)

Below is a list of construction activities carried out on lines and substations that could have environmental implications:

Activities with environmental implications
Use of machinery
Storage and moving of oils and fuels
Storage and disposal of waste
Excavation and filling activities
Compacting activities
Applying of concrete and cleaning of containers
Clearing of brushwood, pruning and felling
Laying of cables
Assembly of equipment (substations)
Creating of work sites (substations)

The following environmental aspects were significant in the construction of lines and new substations in 2005, indicating the percentages of facilities in which such aspects were detected.

Significant environmental aspects		% of facilities with significant aspects	
		Lines	Substations
Affecting fauna		50	10
Affecting the ground		25	50
Affecting historic-cultural elements		50	30
Affecting flora		50	30
Generation of dust		●	70
Tipping from work sites		●	20
Non-hazardous waste	Insert waste (excess earth from excavations)	25	●
	Solid urban waste	25	80
	Plastics	25	80
	Wood	25	80
	Paper & cardboard	●	60
	Scrap	●	80
	Vegetable waste	●	30
Hazardous waste	Cloths impregnated with hazardous substances	50	100
	Recipients which contained hazardous substances	75	100
	Ground polluted by hazardous substances	50	60
Fire risk		50	50
Risk of oil and fuel tipping while using machines		50	30
Risk of oil and fuel tipping while storing and moving oils and fuels		●	40
Risk of oil tipping while assembling equipment		●	50
Risk of polluting water while moving earth		●	40
Risk of affecting birdlife		75	●

● Non-identified aspects

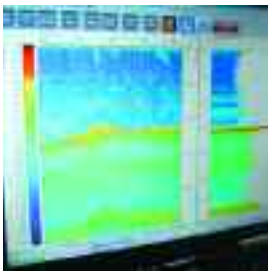
Of all the environmental actions taken during the construction of new facilities in 2005, the following are highlighted:

• Remo Project (2nd cable interconnection between Spain and Morocco)

Project declared of community interest by the European Union, since it crosses a protected natural reserve known as LICs (Places of Community Importance) and ZEPAs (Special Zone protected for Birds) known as Parque Natural del Estrecho (Tarifa) which is included in Red Natura 2000.

Cymonocea nodosa community in the Estrecho Nature Reserve

Collecting of film gear used for the study of marine fanerogams



Side-Scam image for the study of marine fanerogams

Most important enverinonmental actions
A study has been carried out on the location of marine fanerogams *(Cymodocea nodosa)* meadows with respect to the cables, to prevent them from being affected.
Different biological halts have been implemented: 1. Respecting the migratory paths of birds in the spring and autumn through the Strait of Gibraltar 2. Respecting the passage of the red tuna in the waters of Tarifa 3. Due to the presence of birds of interest *(Charadrius alexandrinus)* and Apus caffer) on the beach of los Lances
Protected species of flora (sarcocornia and spartina) have been removed and replanted in areas not affected by the work on the beach of Los Lances
A microbatimetric and biological study has been carried out on the intertidal seabed of the beach of Los Lances to determine corrective measures to be adopted there.
The electrical supply used on the beach of Los Lances for carrying out the work consisted of an autonomous system based on renewable energies (solar panel and wind generator).

Furthermore, an agreement has been reached with Fundación Migres to determine the compensatory and accompanying measures that must be implemented.

Compensatory measures taken
As part of the actions taken to conserve the rivers and coastal streams in the southernmost half of Cádiz, a follow-up of the *Aphanius baeticus* population was made in the river near Tarifa. This species was located in the Jara river in 2002. The Regional Government of Andalusia classified it as an endemistic species (a species that is only found in this region and nowhere else on the planet) and it is considered to be in danger of extinction in both Spain and Europe.
Actions have been taken to evaluate the influence of underwater activities on the seabed.
A feasibility study was carried out on the ecological and cultural use of the island of las Palomas in Tarifa.
Construction of an ornithological observatory on the river Palmones.

Accompanying environmental measures taken

Re-edition of classical Works on the natural wealth of the Strait of Gibraltar.

Preparation of documentaries on the phenomenon of bird migration.

• L/ Nueva Escombreras-El Palmar

Relevant environmental actions

Protected species of flora have been removed by hand from the LIC in Sierra de Carrascoy, to the south of the city of Murcia, and temporarily taken to a nursery so that they can be replanted in their place of origin, once work has been terminated.

Removal of protected vegetable species by hand

Protected vegetablespecies in the nursery

• Muruarte Substation

Relevant environmental actions

Selective felling in the presence of a large group of Holm oaks at the main entrance to the substation.

Laying of the second Spain-Morocco interconnection cable in the Estrecho Nature Reserve

Lastly, we should mention that landscaping activities have been performed on 2 lines and 5 substations in order to minimise visual impact and integrate the facilities into the surrounding area.

Landscaping activities

L/ Balboa-Portuguese Border	During the construction phase, it was necessary to fell 23 Holm oaks and 6 eucalyptus trees. The Environmental Impact Declaration established a ratio of 5 to 1 as a compensatory measure. 900 Holm oaks and 100 pines have been planted.
L/ Lomba-Trives	This line has been extended with the regeneration of four entrances shaping the hillsides, and watercourses added along the paths.
E.S. Cornatel (1)	This is located in an area classified as a LIC and ZEPA, and cleaning, regeneration and sowing activities have been performed on the platform near the work area.
E.S. Ondinas (1)	This is located in an area classified as a LIC, ZEPA and Natural Protected Area, and cleaning, regeneration and sowing activities have been performed in the area surrounding the work site.
E.S. San Agustín (1)	This is located in an area classified as a LIC and cleaning, regeneration and sowing activities have been carried out near the work site.
E.S. Moncayo and E.S. Oncala	Landscaping of buildings has been done, by decorating them with stones.

(1) Substations acquired from other electrical companies

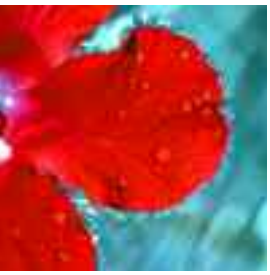
Line Balboa-Portuguese frontier

Below is a chart with some of the indicators resulting from the environmental actions taken with respect to construction during the course of the year.

Environmental behaviour indicators		2003	2004	2005
Repercussions on biodiversity	km of lines constructed in LICs during the year / km of lines constructed during the year	-	-	1.82 %
	Nº of lines constructed in ZEPAs during the year / Nº de lines constructed during the year	-	-	1.82 %
	Nº of substations in LICs constructed during the year / Nº of substations constructed during the year (1)	-	-	0 %
	Nº of substations constructed in ZEPAs during the year / Nº of substations constructed during the year	-	-	0 %
Habitat restored / protected	Nº of new facilities constructed during the year with landscaping activities performed / Nº of new facilities constructed during the year.	33 %	14 %	50 %
	Nº of new facilities with archaeological activities carried out during construction during the year / Nº of new facilities constructed during the year.	47 %	62 %	65 %

(1) Constructions that are now terminated

4.3. Environmental actions in facilities in operation



Below is a chart showing the activities performed in operating facilities that could give rise to environmental implications.

Activities giving rise to environmental implications	
Presence of buildings	
Presence of lines	
Presence of substations	
Energy transportation and transformation	
Maintenance of gardens and electrical parks	
Street maintenance of lines	
Support maintenance of lines	
Use of machinery during line maintenance	
Use and maintenance of equipment:	• Electric generator
	• Fuel tanks
	• Evaporation condensers
	• Air conditioning equipment
	• Intensity and capacitive transformers
	• Power machinery
	• Auxiliary transformers
	• Oil-collection trenches
	• Equipment with hexafluoride
Transfer of oil for equipment maintenance	
Stocking and/or storage of pollutant materials	
Consumptions	
Waste	

Of all the environmental aspects identified, the most significant following the 2005 evaluation are those indicated below. Measures have been taken in respect of each, which are described later in this document.

Significant environmental aspects
Risk of oil spillages in power machinery
Risk of leaks or spillages of oil in auxiliary transformers
Risk of leaks or spillages in equipment containing PCBs
Risk of spillages in oil-collection trenches
Consumption of water, electricity and paper
Storage and disposal of waste

Of all the environmental actions taken during the maintenance of facilities in 2005, the following are of special importance:

With reference to activities aimed at **birdlife protection:**

- Monitoring has been initiated of the 10 kilometres shown in the line crossing the "Sierra de Almenara, Las Moreras and Cabo COPE" ZEPA in Murcia. No collisions at all have been detected, following this monitoring activity.

- The experimental signposting installed on a line in southern Spain has been continued. At present, the results are not conclusive.

- Signposting activities have been carried out using bird-protection spirals in the regions of Aragón and Extremadura, as a result of the agreement signed with both regional communities for the correction of electrical cable-laying. In Aragón, a total of 33 kilometres have been signposted and in Extremadura, 23 kilometres, of lines running through ZEPAs.

Monitoring of stork nesting

Installing of bird-protection under voltage

- Monitoring has been continued with regard to nesting of the white stork (Ciconia ciconia) as well as on the effectiveness of devices aimed at preventing nesting along some of the lines running though Extremadura, Castilla-La Mancha, Castilla y León and Madrid. As a result of this monitoring, we can indicate that in 50% of cases, the devices installed proved to be effective (more information is available in chapter 6).

- Support is still being given to technicians from the wildlife section of the Territorial Service from the Department of the Environment of Castilla y León with respect to the follow-up and inventory of species of the pilgrim falcon (Falco peregrinus) located in nests on the supports of electrical lines belonging to Red Eléctrica (more information is available in chapter 6).

With respect to activities aimed at **protecting the surroundings:**

- Landscaping activities have been carried out in the substations of Boimente and Cartelle consisting of planting autochthonous vegetation, clearing brushwood, pruning, sowing of meadows and phytosanitary treatment.

- A computer simulation has been carried out on gardening inside the substation of Mudarra.

With regard to actions taken to **prevent pollution:**

- In 2005 an environmental review was performed of virtually all the substations acquired from Endesa and Unión Fenosa (156 substations) in December 2002. The review was performed in order to ascertain the current environmental status of these facilities and, based on the results obtained, actions were set up (preventive or corrective measures) for the environmental protection of these substations.

Measuring of electromagnetic fields and noise

In addition, a socio-environmental inventory was made of the lines acquired from the same companies (375 lines) in which all the intersections with natural areas forming part of Red Natura have been included. In this case, they were also defined based on the results of the preventive measured implemented.

In 2006 we are continuing with the review of new elements (acquired from INALTA and Viesgo) as well as setting up the necessary measures for reducing all possible environmental risks.

- A review of the expansion tanks in the power machinery and the auxiliary transformers has been carried out, and based on the results obtained, a series of preventive measures to be undertaken during 2006 will be proposed.

- 82% of the measures programmed for 2005/2006 in the PCBs reduction/pollution Plan have been carried out, and as a result there has been a reduction in the number of transformers polluted with PCBs (> 50 ppm) to 10 polluted items.

With respect to activities for controlling **electromagnetic fields and noise:**

In 2005 the plan for measuring electrical fields, magnetic fields and noise started in 2004 was continued. The objective for 2005 was to evaluate the level of exposure of workers.

We should say that the electrical and magnetic field levels are way below the thresholds marked by the European Directive in normal working places, such as park vials, cabins and offices. With respect to audible noise, the limit set by the applicable legislation was under no circumstances exceeded.

Environmental behaviour indicators		2003	2004	2005
Ground surface area in habitats that are rich in biodiversity	km of lines in LICs/total km of lines	-	-	13.12 %
	Surface area of lines in LICs/Total surface area of LICS in Spain	-	-	0.097 %
	km of lines in ZEPAs/km of total lines	-	-	9.10 %
	Surface area of lines in ZEPAs/Total surface area of ZEPAs in Spain	-	-	0.096 %
	Nº of substations in LICs/Total Nº of substations	-	-	8.37 %
	Nº of substations in ZEPAs /Total Nº of substations	-	-	7.41 %
Objectives and programmes for protecting and restoring ecosystems and autochthonous species in spoilt areas	km of lines with signs indicating the presence of bird-protection devices	-	-	631
	km of lines with signs indicating the the presence of bird-protection devices / km of existing lines	-	-	2.84 %
	km of lines indicated as being in ZEPAs / total km of lines passing through ZEPAs	-	-	10.21 %

Measuring of electromagnetic fields and noise

4. 4. Consumption of natural resources

During the course of our daily work we consume natural resources that form part of our environment, and excessive consumption of these would lead to their being used up. We are well aware of this, and our work is performed based on the idea of reducing basic consumptions, such as water, electricity, paper, fuel, etc.

Thanks to this approach, extremely satisfactory results have been achieved, not only in reducing consumptions but also in terms of achieving greater involvement and collaboration on the part of our employees.

The actions taken to promote awareness among employees and the campaigns set up by the government in the face of the drought problem have succeeded in promoting awareness among all employees and this has led to an important decrease in water consumption.

	2003	2004	2005
Water consumption (m^3/employee)	13.14	11.23	8.39

* The above data correspond to all those facilities on which data are available.

Although an important campaign was carried out among employees, there was an increase in electricity consumption. This increase is largely due to the inclusion in the consumptions control of two new work centres in the Canary and Balearic islands, but even so, the campaign currently in progress will be stepped up to ensure greater awareness is instilled among the employees.

	2003	2004	2005
Electricity consumption (kWh/employee)	6,829.77	6,697.4	7,165.17

* The above data correspond to all those facilities on which data are available.

The awareness campaign showed positive results with a fall in electricity consumption in the home.

	2004	2005
Electricity consumption by employees at home (kWh/employee)	10,206.58	10,091.87

There was an important decrease in paper consumption. This was due, not only to the awareness campaign implemented by the company, but also to the implantation of a documentary management system that enables easy access to documentary stored, and reduces the need for making paper copies.

	2003	2004	2005
Paper consumption (kg/employee)	49.77	47.01	34.79

As an improvement in consumptions control, a control has been implemented on the consumption of DVDs and CDs and fuel consumed by vehicles forming part of our fleet.

	2005
Consumption of CDs/DVDs (un/employee)	3.08
Fuel consumption (l/vehicle in fleet)	2,108.69

These positive results have led us to continue along this line, and set more demanding objectives. In 2006, an action plan for reducing basic consumptions will be implemented, and work will be carried out to ensure we manage to persuade employees to take a more active part in these campaigns.

Action plan for reducing basic consumptions in 2006

Áreas for reduction	Reduction objective	Actions
Water	10 %	Modification of the garden design in the Company Headquarters
Electricity	5 %	Replacing incandescent lamps by low-consumption lamps
		R+D+i Project on ecoefficiency in the buildings of the Company Headquarters and installation of renewable energy systems
		R+D+i Project on luminous contamination of substations.
Cds and dvds	10 %	Search for alternatives to using cds and dvds
Fuel		Substitution of fleet vehicles by other, low consumption vehicles (hybrid engines)
Paper	10 %	Establish printing on both sides of the paper as an internal requisite
		Use of recycled material

4.5. **Waste**

The activities performed in the maintenance and construction of new or existing facilities generate waste which is disposed of in such a manner that it causes no harm to the environment.

During maintenance work carried out on existing facilities a great variety of types of waste is generated, resulting from activities such as repairs, oil supply, substitution of equipment due to having reached the end of their useful life, breakdowns, accidents, pruning, office activities, etc.

In view of the types of activities that generate waste during maintenance work, it is difficult to reduce them and consequently the most important actions are aimed at improving internal management and the most appropriate final disposal, in an attempt to promote reuse, recycling/regeneration and evaluation.

Waste generated during maintenance activities

	Quantities managed (kg)		
	2003	2004	2005
Non-hazardous waste			
Silt from septic tanks	37 *	37 *	67 *
Metal scrap	1,859,244	1,054,951	691,856
Inert substances	407,932	100,920	928,629
Paper and cardboard	87,609	75,155	72,024
Toner	466	530	1,253
Wood	73,385	46,010	64,850
Vegetable waste	611,780	349,540	(1)
Non-hazardous electrical and electronic waste	-	-	65
Plastics	750	5,260	-
Vegetable cooking oil	320	320	320
Hazardous waste			
Used oil	51,925	61,042	72,650
Oil and water mixtures	178	58,760	0
Transformers with PCB	0	0	459 (2)
Oil with PCBs	3,238	0	180
Lead batteries	3,436	3,750	1,102
Nickel/cadmium storage batteries	13,323	16,084	2,327
Batteries	120	141	227
Fluorescent tubes	258	356	428
Earth impregnated with hydrocarbons	10,495	4,762	26,940
Containers of hazardous substances	1,134	164	673
Absorbent materials, filtering materials, cleaning cloths and protective clothing contaminated by hazardous substances.	1,909	1,139	663
Silicagel	113	328	0
Non-halogenated solvents	0	0	29
Halogenated solvents	0	0	500
Hazardous electrical and electronic waste	0	0	35
Water-based cleaning fluids	0	0	200
Paint waste	0	0	2

*Quantities in m^3
(1) No data available, mostly evaluated by owners or incorporated into the land.
(2) REE has drawn up a plan for eliminating/ decontaminating transformers contaminated with PCB. –There are 10 pieces of contaminated equipment (> 50 ppm and <500 ppm).

During the construction of a new facility or the modification of an existing one, waste is generated which are disposed of by suppliers, who are informed of the most appropriate environmental method for disposing of it, from the time it is generated to its final destination.

Waste generated during construction activities

Non-hazardous waste
Excess earth from excavations
Forest waste
Rubble
Paper and cardboard
Plastics
Wood
Scrap
Solid Urban Waste
hazardous waste
Paint waste
Absorbents and cloths contaminated with hazardous substances
Earth impregnated with hydrocarbons
Containers of hazardous substances

4.6. Enverinonmental accidents

We are well aware of the consequences of any accident on the environment and for this reason, we take preventive measures to prevent this and/or to ensure that if such accidents occur, the effect on the environment is reduced to a minimum. Thanks to the application of these measures, the accidents taking place in our facilities have had extremely minor consequences.

Practicing fire fighting.
Red Eléctrica's emergency group

Fire prevention measures

- Selective felling and pruning of vegetation in streets and maintenance of minimum safety distances. (In 2005 this entailed a cost of 3,498,942 euros).

Measures taken to prevent leaks and spillages

- Preventive maintenance work on equipment containing oil.
- Presence of trenches and/or vats underneath the equipment and/or storage of potentially contaminating substances.
- Handling of equipment and contaminants on impermeable surfaces.

In addition, in 2005 the status of the preventive measures taken to prevent oil spillages in power machinery and auxiliary transformers was reviewed and the allocation of material for preventing spillages was considerable increased.

The following able shows the type of accidents occurring and the number of times they took place over the past three years.

Accidents occurring	2003	2004	2005
Construction activities*	-	3*	15
Oil leaks and spillages due to errors in filling the transformer	-	1	0
Oil and hydrocarbon leaks and spillages due to minor breakdowns during the use of machinery in construction	-	2	15
Maintenance activities	5	9	7
Fires due to failures in lines	3	2	0
Explosions in intensity and capacitive transformers	1	0	1
Oil and hydrocarbon leaks and spillages during the use and maintenance of substation equipment	1	7	5
Flooding	0	0	1

* Construction accidents have been recorded since 2004

CHAPTER 5

Research and development

In our research and development activities we perform our research and innovation work with reputed researchers to attain objectives and results that will add value to our activities.

8.85% of total expenditure on R+D+i was used for environmental projects.

We continue to make an important effort to develop new research lines that make our company's activities compatible with **birdlife protection.**

Study of the great bustard

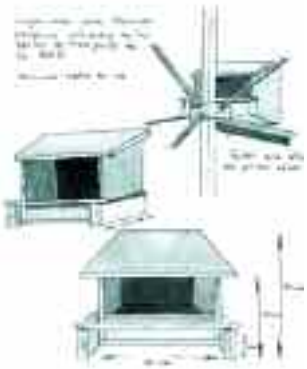
- **Protection of steppe-land birds:** we have started a research study that involves researchers from the Doñana Biological Station (Higher Council for Scientific Research (CSIC)) and the Natural Science Museum of Madrid (CSIC) with the objective of analysing the repercussions of our lines on Andalusian steppe-land birds and in particular the great bustard (Otis tarda), in addition to defining possible measures for controlling the habitat of this bird that will reduce the risk of them colliding with the lines.

The study is being carried out in steppe-land areas in the province of Córdoba, where there is an important population of steppe-land birds that feed off the cereal crops in that area.

- **Protection of birds of prey:** we continue to collaborate with experts from the wildlife area of the Territorial Service in Valladolid of the Department of the Environment for Castilla y León in placing artificial nests and in monitoring and making an inventory of species of the pilgrim hawk *(Falco peregrinus)* located in natural or artificial nests placed on supports along electric lines.

Pilgrim hawk eggs in an artificial nest

Pilgrim hawk chicks in an artificial nest



Experimental blade bird-saving device

The electrical line supports are the substrata most often used by the pilgrim hawk in the province of Valladolid, and give the hawks the opportunity to nest in a habitat that has no traditional substrata, thereby lessening the risk from potential predators.

Population trend

Year	Total Nº of nests	% in Natural environment	% in electrical lines
2003	29	36	64
2004	33	36	64
2005	40	30	70

- **Protection of long-legged birds:** the nesting of the white stork *(Ciconia ciconia)* in electrical line supports is a great problem today for all the companies operating in the sector. In this regard, many research projects have been undertaken with a view to finding a way to make the nesting of the birds compatible with the correct operation of the facilities. As a result, a design was developed and a method was tested to prevent them from nesting, which was registered as a public utility modelin 2000.

Since that year, work is still in progress to monitor the efficacy of the measures taken along the lines running through the regions of Extremadura, Castilla-La Mancha, Castilla y León and Madrid. The result of this monitoring shows that in 50% of cases, the dissuasive methods implemented had the desired effect.

Evolution in the nesting of the white stork in Red Eléctrica supports

Year monitored	Total Nº of nests
2003	362
2004	384
2005	426

Evolution of the population of the white stork in Spain *

Year of census	Nº of couples included in census
1992	10,000
1994	16,643
2004	33,215

* Information extracted from the "Atlas de las aves reproductoras de España" (Atlas of reproductive birds in Spain) published by the Ministry of the Environment and SEO/BirdLife), Madrid, 2003

- **Anti-collision measures:** we are continuing with the research study we started last year with the Doñana Biological Station (CSIC). The aim of the study is to compare the efficacy of the bird-protection model used to date (bird-protection spiral) with a newly-designed experimental model (bird-protection blade) (registered as a public utility model in 2005)-.

Experimental bird-protection device

Spiral bird-protection device

Vibration test

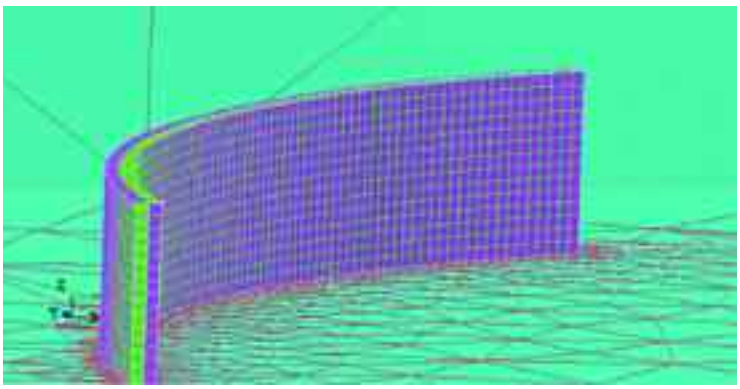
Both models were installed in the Palos-Guillena line in southern Spain. A total of approximately 10 km was used, of which 8 were signposted with bird-protection spirals in three different colours, and 2 with the new bird-protection blade.

In 2005 the efficacy of these indication measures installed was monitored. No conclusive results were obtained, given the small number of birds passing through the area, and therefore monitoring will be continued for another year.

In carrying out the research studies related to **electric and magnetic fields**, we collaborate with universities, research centres, official bodies and companies operating in the sector, as well as other national and international entities of great repute.

For the past two years we have been actively collaborating in a new study alongside specialists from the Institute of Applied Magnetism in the Universidad Complutense de Madrid-RENFE-CSIC and UNESA. The purpose of this study is to develop a model for calculating the current density induced by electric and magnetic fields inside the human body.

View of platinum electrodes on the kidney of an in vivo experimental animal



Detail of the computarised model of the skin

In 2005 an in vivo and in vitro analysis was performed on the mode for the transmission of the density of the current induced in the most important organs (kidney, heart, liver) in an experimental animal (a pig), was analysed, given the structural similarity of its organs with those of humans.

Based on the results obtained, a computerised model of each organ was developed. This made it possible to ascertain the currents induced in each organ, based on the fields to which they are submitted.

A new line of research has been opened up with the study on the **acoustic emissions** generated by the substations.

This study commences with the development of a computer programme that enables environmental noise in the substations to be predicted. To do this, the sound sources are identified and a work method has been established for conducting the studies on the acoustic impact through a graphic representation of the emission levels on noise maps.

Future Bescanó electrical station plant project

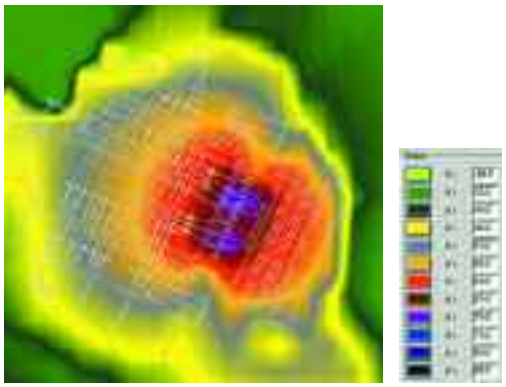


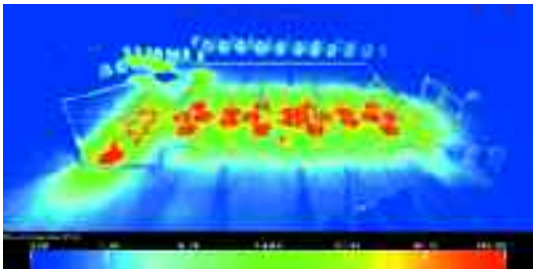
Image of the future Bescanó electrical station plant noise map

Depending on the results obtained, preventive measures will be implemented to minimise acoustic emissions by the substations as much as possible.

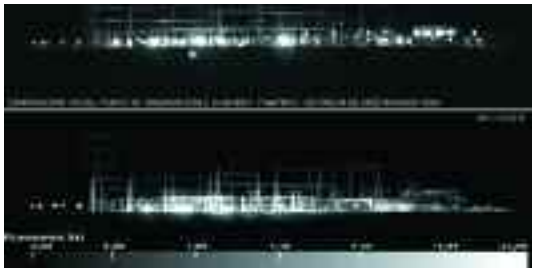
In the field of **luminous contamination**, a new research line has also been opened up. A method and data-processing tool have already been developed to permit the analysis of potential luminous contamination by electrical substations.

Two substations were selected and the types of lighting used inside them, shields, buildings, coatings and surfaces inside them and in the surrounding areas were analysed and modelled.

Based on the data obtained, a study method was developed that will enable us to draw up a list of recommendations when installing lights in substations.



Lighting map of the Penagos electrical station



Comparasion of lighting in a real photo of the subtation with 3D simulation

CHAPTER 6

Training and awareness

We consider environmental training a strategic line for creating a team that is increasingly more aware of the need for environmental protection. The training activities carried out go far beyond mere professional training, since they are also intended to contribute towards improving environmental habits during the daily work, and family life of each employee.

In 2005, 5.3% of our employees received specialised environmental training, with a total of 3,382 training hours. Environmental training was given in the following areas:

Environmental training areas

Environmental management and sustained development
Corporate social responsibility
Iberian fauna and flora
Restoring of spoiled areas
Use and measuring of environmental indicators
Hazardous waste disposal in Red Eléctrica
Environmental management systems
Environmental awareness in the electrical sector
Coefficiency criteria in business processes
Appraisal engineering and evaluation of vegetable species
Visit to hydraulic stations and wind farms

The work envolved in promoting awareness during the present year was carried out through the following communications channels.

- Internal website, with a page describing environmental activities developed by the company, sound environmental practices for using both at home and at work, external environmental events and publications or articles on the environment promoted by the company.

- Quarterly bulletin of news on 50/60 Hz electrical and magnetic fields.

- Entre Líneas. A magazine containing important news, activities and events to do with the company, including articles about the environment.

- Red en Línea. An *on-line* publication informing on company activities, with environmental news items.

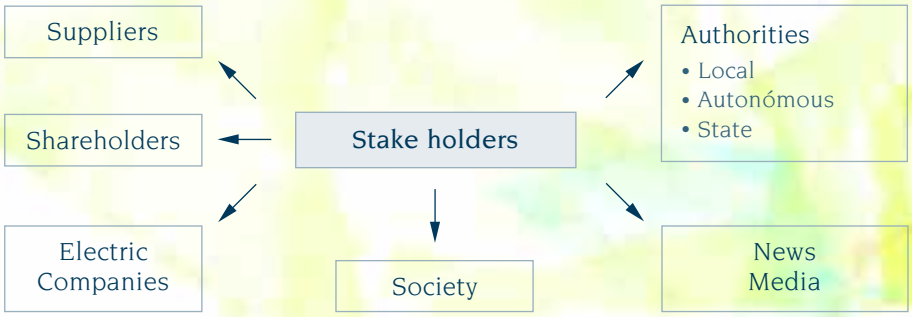
We should mention the launch of a green box in which employees can deposit their suggestions for protecting and improving the environment both at work and at home, which will be set up at the beginning of 2006.

CHAPTER 7

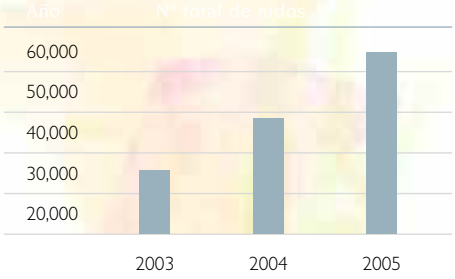
Communications

Since we are very much aware of the social interest of our business activity, we offer constantly provide information and communicate with all the key actors involved.

To achieve this, we make available to society different environmental communications channels, which include the annual publication of our environmental report, and our website (www.ree.es). This contains a special section on different environmental aspects of the company. In 2005, this section received a total of 54,486 visits from different countries, accounting for 8.9% of all visits received by the corporate website.



Visits received by the corporate website



We also have a system for dealing with and responding to all queries and complaints from all parties involved, which offers a response within the shortest possible time.

Evolution of queries

Area	2003	2004	2005
Birdlife	13	1	7
Electromagnetic fields	8	5	1
Green certificates	4	1	0
Environmental costs	0	1	0
Instalaciones	4	4	1
Environmental information in general	8	4	2
Publications	11	13	13
Noise	0	1	0
Total	**48**	**30**	**24**

Evolution of complaints (1)

Area	2003	2004	2005
Electromagnetic fields	0	0	7(2)
Impact on the landscape	0	1	0
Facilities	1	1	0
Government requirements	0	3	0
Fire risk	1	0	0
Noise	3	0	0
Flora	0	0	2
Total	**5**	**5**	**9**

(1) Regulatory sanctions are not included in this table, but listed in chapter 9.
(2) In the seven complaints on electromagnetic fields, readings were taken and in none of the cases did they exceed the values stipulated in the European recommendation for public exposure.

Furthermore, Red Eléctrica collaborates with different bodies with the aim of promoting environmental development:

- A collaboration agreement was signed with the SEO to make electrical lines compatible with protecting birdlife. Through this agreement, we are committed to furnishing information on all projects under study that could affect areas of importance to birds, offer information on dangerous vanes and spans through which the facilities run and set aside a budget every year for signposting. The SEO for its part will inform us on all potential projects and lines laid that could cause harm to birds.

- We collaborate with the Doñana Biological Station (CSIC) and the Natural Science Museum of Madrid (CSIC) in analysing the effects of our electrical line on steppe-land birds in Andalusia, and in particular the great bustard and potential measures for controlling the habitat of this bird, in order to reduce the risk of it colliding with the electric cables.

- We collaborate with the Doñana Biological Station (CSIC) in the study on the efficacy and durability of the bird-protection spiral and blade anti-collision signs in birdlife protection.

- We collaborate with the General Deputation of Aragón with the objective of minimising the risk of the collision of threatened bird species by placing signs on lines that have been identified as potential risks to birds.

- We collaborate with the Department of Industry and the Environment of the Murcia Region with the objective of protecting and recuperating the partridge eagle population by placing signs on a line running through a ZEPA and then evaluating the efficacy of the measure adopted. This project is included in the project entitled Life-Naturaleza "Conservación de Hieraaetus fasciatus – Almenara – Murcia.

- We collaborate with the Department of Agriculture and the Environment of the Andalusian Regional Government with the aim of analysing all stretches that are potential dangerous and carry out the installation of bird-protection devices.

- We collaborate with the Doñana Biological Station (CSIC) in performing a sensitivity study on the bear and capercaillie in the region of Cantabria.

- We collaborate with the Institute of Applied Magnetism in the Universidad Complutense de Madrid-RENFE-CSIC and with UNESA in the project entitled "Corrientes Inducidas en el cuerpo humano por Campos Electromagnéticos de frecuencia industrial" (Currents Induced in the human body by Electromagnetic Fields with industrial frequencies).

- We collaborate with the Entorno Foundation with the objective of promoting environmental improvements in our company by carrying out training, information and research activities in collaboration with the business sector.

- We collaborate with the Association of Environmental Information Journalists (APIA).

In addition, we take an active part in work groups, congresses and debate forums organised by reputed bodies, entities and associations.

Work groups	Organised by
Environmental costs evaluation	AENOR
"Environmental Management Systems" Subcommittee	AENOR
"Environmental Behaviour of Electrical Systems" Steering Committee	CIGRÉ
Sustanaible development performance indicators	CIGRÉ
Utilites practices in sustainable development	CIGRÉ
Regional Plan of Electrical Infrastructures	Regional Community of Madrid
Environment and Society	EURELECTRIC
Regulation of the Noise Act	Ministry of the Environment
Work group on electromagnetic fields	UNESA

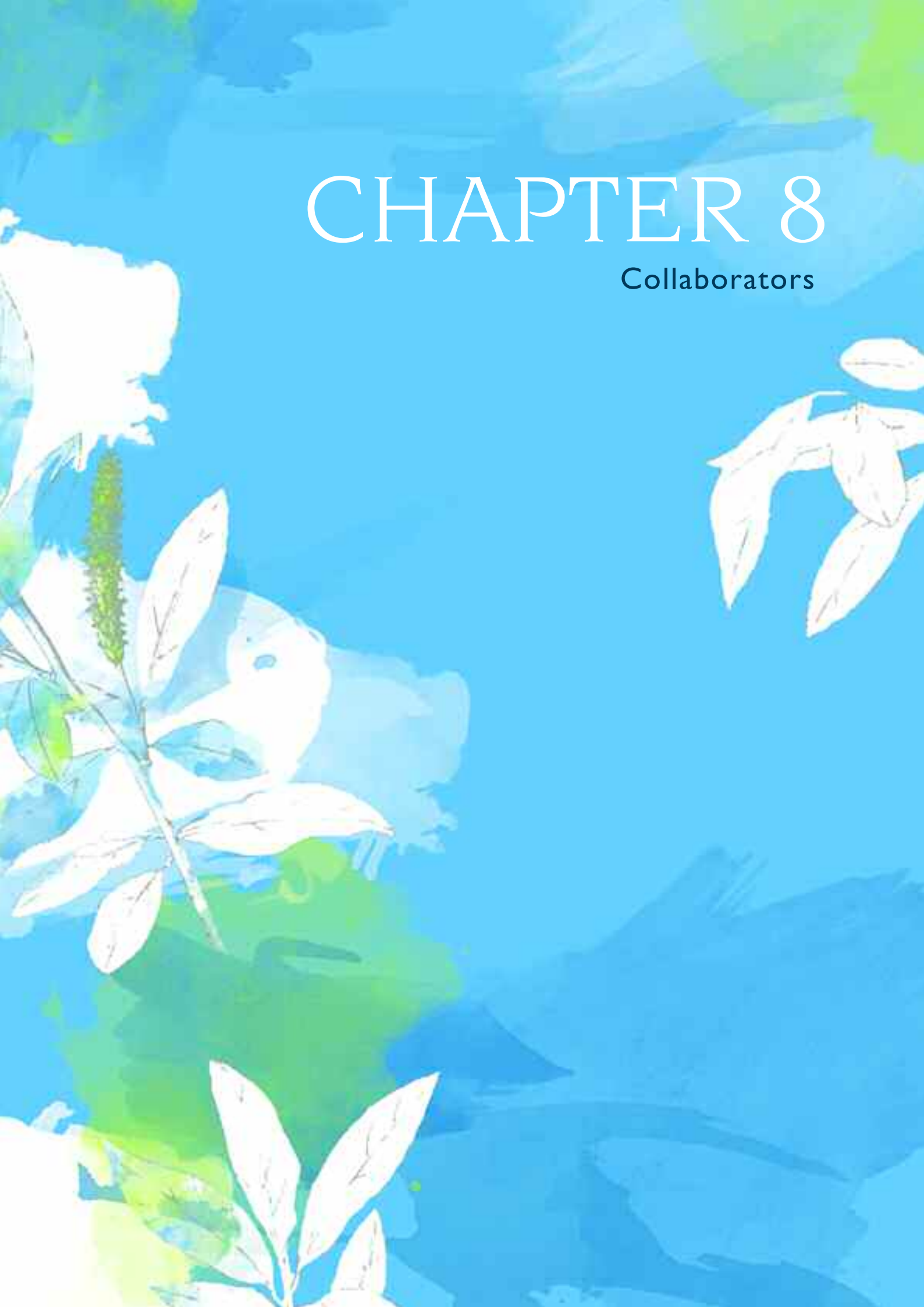
In the same way as in previous years, we have carried out an exhaustive programme of editing and diffusion of publications.

The distribution of publications in e-format through the website (www.ree.es), which enables greater diffusion of the information to all interested parties, with an important savings in natural resources, increased in 2005, with a total of 11,552 environmental publications downloaded.

Most important publications in 2005:

- 2004 Environmental Report
- 2004 Corporate Social Responsibility Report
- Red Eléctrica y la avifauna: 15 años de investigación aplicada
- Tryptych entitled "El cernícalo primilla en las subestaciones eléctricas" in collaboration with the Doñana Biological Station (CSIC)

Lastly but not least, we would mention that in 2005 we became a member of Red Life –revista de la naturaleza de Andalucía, which includes news and articles on species in danger of extinction–, thereby becoming the godparents of the great bustard. This was done in addition to the study we are conducting on this species, and will enable us to transmit our concern for natural and environmental values to society, in addition to contributing to keeping society better informed on this species, its habitat, recuperation programmes, singularities and in general, its great worth as part of Andalusia's natural heritage, and hence of Spanish natural heritage.



CHAPTER 8

Collaborators

We consider our suppliers and contractors to be of fundamental importance in developing our activities and we therefore extend our commitment towards the environment to each and every one of them, since they are an integral part of our team.

Operarios trabajando en líneas

To ensure that all the work carried out by our collaborators to be done in accordance with the principles established by Red Eléctrica, a rating system has been set up which defines the criteria for selecting all those who are able to guarantee a job well done, and their environmental commitment.

During the year, we have analysed our environmental rating system and defined a hierarchical series of rating levels that will enable us to include our suppliers on the appropriate level, depending on the extent of their environmental commitment.

Through the development of this rating system, we expect an individual appraisal system to be in place for each of these suppliers by next year.

Our collaborators adopt our commitment towards the environment in their own daily activities, and proof of this is the growing number of suppliers who are in possession of certified environmental quality systems by an external body, or who are starting to implement them.

Behaviour of suppliers with respect to the environment	Year 2005
Suppliers rated	350
% of suppliers with certified SGMA	22.28 %
% of suppliers with SGMA	26.28 %
Suppliers with environmental ratings*	213
% of suppliers with certified SGMA	26.29 %
% of suppliers with SGMA	31.92 %

* These include all suppliers whose services or products provided have some type of environmental connotation worth considering.

CHAPTER 9

Regulatory sanctions

Red Eléctrica continues with its programme of on-going improvement, which it has achieved thanks to the growing participation of each employee in the activities it carries out in all its daily work.

During the course of the year, a fine was imposed, of 374.70 for a file opened in 2004 for carrying out work on a stream without due authorisation during the blocking and diverting of a ford. A total of 9 files are still pending decision, five for 2004 and four for 2005.

The status of the files with respect to which fines have been paid from 2003 to 2005 and those pending decisions as at December 31 2005 are shown in the table below.

Evolution of files

		Involving a fine	Pending decision
Years opened	2003	3	-
	2004	1	5
	2005	-	4

Below is a chart showing the type of infringement committed and the cost of each, in the files involving payment of a fine from 2003 to 2005.

Cost of the infringement (euros)

	Year opened		
Infringement committed	**2003**	**2004**	**2005**
Construction of a hut without permission	280	-	-
Felling and cutting without permission	1,001	-	-
Fire	30.05	-	-
Diverting a stream	-	374.70	-
Total cost	**1,311.05**	**374.70**	-

CHAPTER 10

Environmental costs

During 2005, we have made environmental investments in new facilities, valued at 2,074,968.98 euros, which accounts for 0.57% of the total investments made in the transport network.

These investments correspond to the conducting of studies on the environmental repercussion of all projects, the application of preventive and corrective measures and environmental supervision activities in electrical facilities under construction.

Similarly in 2005 we have incurred costs in environmental protection and improvement amounting to 5,879,716.37 euros, which accounts for 2.18% of total operating expenses incurred.

The following table shows the evolution of environmental costs over the past three years.

Environmental costs (euros)	2003	2004	2005
Investments	1,575,382.23	1,704,464.50	2,074,968.98
Engineering and construction of new facilities	1,575,382.23	1,704,464.50	2,074,968.98
Expenses	3,956,309.87	4,893,172.86	5,879,716.37
SGMA	13,681.54	24,639.79	19,811.05
Preventive and corrective measures on facilities in operation	2,863,660.74	3,527,413.47	4,387,809.48
Prevention of pollution	-	121,833.00	290,939.67
Birdlife protection	114,770.26	131,555.61	228,796.37
Protection of flora	2,485,163.30	2,952,405.00	3,498,942.00
Protection of the land	122,087.00	121,268.00	223,385.00
Management of electromagnetic fields and noise	-	100,047.10	45,348.06
Environmental improvements in facilities	65,986.38	44,743.00	42,254.00
Waste disposal	54,451.78	55,561.76	58,144.38
R+D	127,701.05	225,315.58	217,744.19
Training and communications	138,887.75	210,386.42	266,392.94
Environmental training and awareness	15,355.93	4,606.00	17,500.00
Communications	123,531.82	205,780.42	248,892.94
Environmental taxes and royalties	13,205.59	2,815.90	21,660.37
General expenses incurred by Environmental Department staff	799,173.20	902,601.70	966,298.34

The following table shows the evolution of the percentage of environmental expenses and investments compared to total expenses and investments in the transport network, respectively.

Environmental investments and expense percentages		2003	2004	2005
Environmental investment percentage	Environmental investment / Total investment in transport network	0.73 %	0.70 %	0.57 %
Environmental expense percentage	Environmental expense / Total operating expenses	1.63 %	1.80 %	2.18 %

In addition to the above costs, we pay an important sum of money in environmental taxes, due to the presence of our electricity transport facilities in the regions of Catalonia and Extremadura.

Environmental taxes (euros)

Autonomous Region	2003	2004	2005
Catalonia	60,101.00	60,101.16	60,101.16
Extremadura	795,556.92	795,556.92	841,594.32
TOTAL	**855,657.92**	**855,658.08**	**901,695.48**

CHAPTER 11

Environmental behaviour indicators

Red Eléctrica has always been firmly committed to sustainable development, based on our aspiration to be included among the companies that do their utmost to integrate environmental protection into the normal development of their business activities. This commitment has led us to define and implement indicators that will enable us to measure and evaluate our environmental performance.

Environmental behaviour indicators

Objectives		2003	2004	2005	Page nº
Compliance with the environmental programme	Environmental objectives complied with/ Total environmental objectives	72.20 %	73.40 %	84.55 %	14

Affecting Red Natura 2000		2003	2004	2005	
Ground surface area in habitats that are rich in biodiversity	km line en LICs	-	-	13.12 %	31
	Surface area of lines in LICs	-	-	0.097 %	31
	km line in ZEPA	-	-	9.10 %	31
	Surface area of lines in ZEPA	-	-	0.096 %	31
	Nº of substations in LICs	-	-	8.37 %	31
	Nº of substations in ZEPAs			7.41 %	31
Repercussions on biodiversity	km of lines constructed in LICs during the year	-	-	1.82 %	27
	Nº of lines constructed in ZEPAs during the year	-	-	1.82 %	27
	Nº of subs. constructed in LICs during the year	-	-	0 %	27
	Nº of subs. constructed in ZEPAs during the year	-	-	0 %	27

Restoration and protection of natural habitats and species			2003	2004	2005	
Restored habitat	Nº of new facilities constructed during the year with landscape restoration performed*		33 %	14 %	50 %	27
	Nº of new facilities in which archaeological work was carried out in construction during the year		47 %	62 %	65 %	27
Objectives and programmes for protecting and restoring ecosystems and autochthonous species	km of lines with signs for protecting birds		-	-	631	31
	km of lines with signs for protecting birds/ km of lines existing		-	-	2.84%	31
	km of lines bearing ZEPA signs/ Total km of lines passing through ZEPA		-	-	10.21 %	31
	Population trend of the pilgrim hawk in Valladolid	Total nº of nests	29	33	40	41
		% in natural environment	36 %	36 %	30 %	41
		% in electric lines	64 %	64 %	70 %	41

* New facilities constructed in which constructed has been terminated.

Consumption of natural resources		2003	2004	2005	
Consumption of natural resources	Electrical consumpt.* (kW h/employee)	6,829.77	6,697.40	7,165.20	32
	Water consumpt.* (m^3/employee)	13.14	11.23	8.39	32
	Paper consumpt. (kg/employee)	49.77	47.01	34.79	33
	Use of company vehicle (l/car)	-	-	2,108.69	33
	Consumpt. of CDs/DVDs (un/employee)	-	-	3.08	33
Indirect consumption of natural resources	Electrical consumption by employees at home (kW h/employee)	-	10,206.58	10,091.87	33

* These data correspond to all those facilities in which data are available.

Generation of waste		2003	2004	2005	Page nº
Total waste generation	kg of hazardous waste	86,129	146,526	106,415	35
	kg of non-hazardous waste	3,085,146	1,671,086	1,838,057	35

Accidents		2003	2004	2005	
Tipping of oil and fuel	Nº of accidents involving spillages of oil and fuel during the year during the course of maintenance activities	2	3	7	37
	Nº of accidents involving spillages of oil and fuel during the year during the course of construction activities	-	3	15	37

R+D+i		2003	2004	2005	
Environmental R+D+i	R+D+i expenditure / Total R+D+i expenditure	6.80 %	9.54 %	8.85 %	40

Training & promotion of awareness		2003	2004	2005	
Environmental training	Employees receiving environmental training during the year	-	5.40 %	5.30 %	48

Communications with parties involved		2003	2004	2005	
Environmental communications	Nº of environmental consultations	48	30	24	53
	Nº of Environmental Complaints	5	5	9	53
	Nº of visits to the environmental section of the external website	25,942	38,406	54,486	50
	Nº of downloads of environmental publications in the external website	-	-	11,552	55

Collaborators		2003	2004	2005	
Behaviour of suppliers in relation to environmental affairs	Nº of qualified suppliers	-	-	350	58
	Suppliers with qualified SGMA (ISO_14.001 or EMAS)	-	-	22.28 %	58
	Suppliers with SGMA	-	-	26.28 %	58

Regulatory sanctions		2003	2004	2005	
Incidents and fines for non-compliance with environmental guidelines	Nº of regulatory sanctions ending in fines during the year	3	1	0	62
	Total amounts paid in fines during the year (€)	1,311.05	374.7	0	62

Environmental costs		2003	2004	2005	
Environmental expenditure & investment	Environmental investment (€)	1,575,382.23	1,704,464.50	2,074,968.98	66
	Environmental investment/ total investment in the grid	0.73 %	0.70 %	0.57 %	67
	Environmental expenses (€)	3,956,309.87	4,893,172.86	5,879,716.37	66
	Environmental expenses/ total operating expenses	1.63 %	1.80 %	2.18 %	67
	Environmental taxes (€)	855,657.92	855,658.08	901,695.48	67

CHAPTER 12

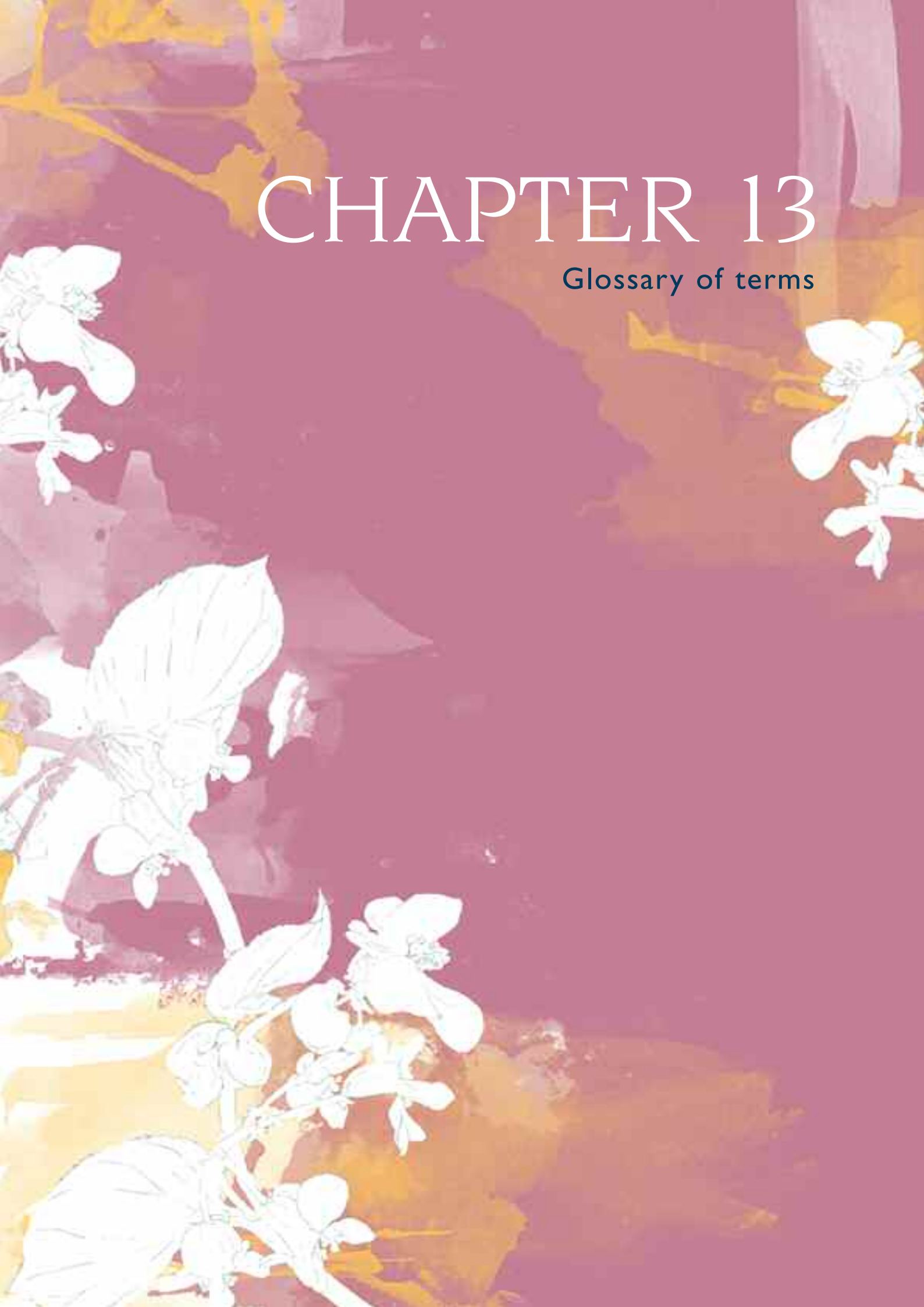
Frequency of the environmental declaration

The purpose of this Environmental Report is to inform shareholders, customers, suppliers, authorities, official bodies, entities, associations, groups and society in general on the environmental activities carried out by Red Eléctrica in 2005.

The Environmental Declaration is drawn up on an annual basis. It is published in the form of an Environmental Report or, if it is considered that no important changes have taken place in the business activity since the last Declaration, as an additional chapter of the Red Eléctrica Annual Management Report.

The Spanish Association for Standardisation and Certification (AENOR), with registered office in Génova 6 – 28004, Madrid and Accredited Verifying Body number E-V-0001, is the entity that verifies that the RED ELÉCTRICA Environmental Declaration fulfils all the requirements laid down in Regulation (EC) Nº 761/2001 of the European Parliament and Council, dated March 19, 2001, which permits organisations to voluntarily adhere to a community environmental management and audit system (EMAS).

The next Declaration will be submitted and published during the first half of 2007.



CHAPTER 13

Glossary of terms

Environmental aspect:

That element of the activities, products or services of an organisation that may interfere with the environment.

(EEC Regulation n.º 761/2001 of the European Parliament and Council dated March 19, 2001 which permits companies in the industrial sector to voluntarily adhere to a community environmental management and audit system [EMAS]).

Significant environmental aspect:

All environmental aspects which, after being evaluated based on a series of criteria laid down by an organisation, exceed the threshold established by such criteria

(Own definition. REE)

Environmental audit:

A management tool that comprises a systematic, documented, regular and objective evaluation of the efficacy of the organisation, the management system and the procedures used to protect the environment for the purpose of facilitating operating control of practices that could have an impact on the environment and evaluate compliance of the organisation's environmental policy, and in particular, its environmental objectives and goals.

(EEC Regulation n.º 761/2001 of the European Parliament and Council, dated March 19, 2001 which permits companies in the industrial sector to voluntarily adhere to a community environmental management and audit system [EMAS]).

Electric field:

In a point in space, the force to which an inert charge unit located in that point is subjected. Expressed in Volts per metre (V/m).
(50 Hz Electric and magnetic fields. REE and UNESA, 1998).

Magnetic field:

In a point in space, the force to which a current element located in that point is subjected. Expressed in amps per metre (A/m). The measuring unit in the International System is the Tesla (T) or fractions thereof, and in particular the microtesla (mT).
(50 Hz Electric and magnetic fields. REE and UNESA, 1998).

Nesting dissuasory device:

A device formed by various elements made of galvanised steel of different sizes that prevents birds from building nests and perching on the place where they are installed, or on the device itself.
(Own definition. REE)

Environmental impact:

Any change in the environment, either adverse or beneficial, which is derived totally or partially from the activities, products or services of an organisation.
(EEC Regulation n.º 761/2001 of the European Parliament and Council, dated March 19, 2001 which permits companies in the industrial sector to voluntarily adhere to a community environmental management and audit system [EMAS]).

Environmental objective:

The general environmental purpose which has its origin in the environmental policy set by an organisation, and which can be quantified, insofar as this is possible.
(EEC Regulation n.º 761/2001 of the European Parliament and Council, dated March 19, 2001 which permits companies in the industrial sector to voluntarily adhere to a community environmental management and audit system [EMAS]).

Environmental policy:

The general objectives and principles of action of an organisation with respect to the environment, including compliance of all applicable regulatory requirements relating to the environment and also the commitment to make on-going improvements to environmental behaviour; environmental policy shall constitute a framework for establishing and reviewing environmental objectives.

(EEC Regulation n.º 761/2001 of the European Parliament and Council, dated March 19, 2001 which permits companies in the industrial sector to voluntarily adhere to a community environmental management and audit system [EMAS]).

Waste:

Any substance or object that belongs to any of the categories appearing in the annexe to the Waste Act, which is disposed of by its owner, or which the owner intends or is obliged to discard. In all cases, the elemnts appearing in the European Waste Catalogue (CER) shall be considered as such.

(Waste Act 10/1998, of April 21, 1998).

Bird-protection device or bird protection "spiral":

A white or orange spiral made of polypropylene (PVC) and shaped like a spindle, measuring 30-35 cm in diameter, and with a length of 1 m, which is rolled onto the ground cable or conductor as an indicator, to reduce the risk of accidents due to birds colliding against them.

(Own definition. REE)

Visual simolation:

An infography technique (that part of data-processing that treats graphic representations) applied to obtaining project representations that give an approximate idea of what it will look like in the future, showing the elements that form it and the integration of these elements into the execution environment.

(Own definition. REE).

Environmental management system (SGMA):

That part of the general management system which includes the organisational structure, the planning activities, responsibilities, practices, procedures, processes and resources for developing, applying, reaching and maintaining environmental policy.

(EEC Regulation n.º 761/2001 of the European Parliament and Council, dated March 19, 2001 which permits companies in the industrial sector to voluntarily adhere to a community environmental management and audit system [EMAS]).

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ESQUEMA EUROPEO DE ECOGESTIÓN Y ECOAUDITORÍA (EMAS)

Eco-Management and audit scheme (EMAS)

VDM-01/004

La Asociación Española de Normalización y Certificación (AENOR) a través de procesos de auditoría acreditados, certifica que:
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RED ELECTRICA DE ESPAÑA, S.A.

tiene implantado un sistema de Gestión Medioambiental que cumple los requisitos del Reglamento Europeo 761/2001
has implemented an environmental management system that complies with the requirements of the European Regulation 761/2001

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for the activities of:

LA INGENIERÍA, LA CONSTRUCCIÓN Y EL MANTENIMIENTO DE LÍNEAS Y SUBESTACIONES ELÉCTRICAS DE ALTA TENSIÓN, Y DE SISTEMAS DE TELECOMUNICACIONES.
LA OPERACIÓN DE SISTEMAS ELÉCTRICOS.
LA SEGURIDAD FÍSICA DE INSTALACIONES.
LOS PROYECTOS DE INVESTIGACIÓN, DESARROLLO E INNOVACIÓN TECNOLÓGICA.
LA CONSULTORÍA Y LOS SERVICIOS PROFESIONALES EN LAS ACTIVIDADES ANTES DESCRITAS.

THE ENGINEERING, CONSTRUCTION AND MAINTENANCE OF HIGH VOLTAGE, TRANSMISSION LINES AND SUBSTATIONS, AND TELECOMMUNICATION SYSTEMS.
THE TRANSMISSION SYSTEM OPERATION.
THE SECURITY OF PEOPLE, BUILDING AND FACILITIES.
THE RESEARCH, DEVELOPMENT AND TECHNOLOGICAL INNOVATION PROJECTS.
THE CONSULTING AND PROFESSIONAL SERVICES OF ABOVE ACTIVITIES.

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VER DIRECCIONES INDICADAS EN EL ANEXO

y que la información incluida en la declaración medioambiental se ajusta a los requisitos expresados en dicho Reglamento y ha sido validada con fecha 2006-06-01.
and the information included in the environmental declaration complies with the requirement of that European Regulation and has been validated on 2006-06-01.

Fecha de validación: 1 de junio de 2006
Validation Date

AENOR Asociación Española de Normalización y Certificación

Firma: D. Ramón NAZ PAJARES
Signature **Director General de AENOR**
General Manager of AENOR

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ANEXO

ESQUEMA EUROPEO DE ECOGESTIÓN Y ECOAUDITORÍA (EMAS)

Eco-Management and audit scheme (EMAS)

VDM-01/004

Los Centros Certificados del Sistema de Gestión Medioambiental de acuerdo con el esquema europeo de Ecogestión y Ecoauditoría (EMAS) de RED ELECTRICA DE ESPAÑA, S.A. nº VDM-01/004 son los siguientes: *Activities within the scope of the Environmental Management System according to the Eco-Management and Audit Scheme (EMAS) RED ELECTRICA DE ESPAÑA, S.A. nº* VDM-01/004 *include the following:*

Delegación Regional Oeste
CL. ZALAETA, S/N EDIFICIO REE
15002 - LA CORUÑA
(A CORUÑA)

Delegación Regional Norte
AV. DE ENEKURI, 60 EDIFICIO REE
48014 - BILBAO
(VIZCAYA)

Delegación Regional Noreste
AV. PARALELO, 55 EDIFICIO REE
08004 - BARCELONA

CECORE
CL. ISAAC NEWTON, 12 EDIFICIO REE
28760 - TRES CANTOS
(MADRID)

Delegación Regional Sur
CL. INCA GARCILASO, 1 EDIFICIO REE
41092 - ISLA DE LA CARTUJA
(SEVILLA)

Delegación Regional Levante
CL. PUEBLA LARGA, 18
46183 - LA ELIANA
(VALENCIA)

Demarcación Duero-Sil (35 Subestaciones)
CR N-601, MADRID-VALLADOLID-LEÓN, Km 218
47630 - LA MUDARRA
(VALLADOLID)

Demarcación Ebro (32 Subestaciones)
CR ZARAGOZA-SARIÑENA, Km 9,2
50142 - VILLAMAYOR
(ZARAGOZA)

Demarcación Mediterráneo (33 Subestaciones)
CR ANTIGUA CASTELLBISBAL-RUBÍ, S/N PI CAN PI DE VILAROC
08191 - RUBÍ
(BARCELONA)

Demarcación Tajo (34 Subestaciones)
CR N-I MADRID-BURGOS, Km 23,7
28709 - SAN SEBASTIÁN DE LOS REYES
(MADRID)

Demarcación Bética (31 Subestaciones)
CR SEVILLA-UTRERA, Km 17
41500 - ALCALÁ DE GUADAIRA
(SEVILLA)

Dirección Operación Sistema Eléctrico Balear
CAMI SON FANGOS Nº 100 EDIFICIO A 2ª PLANTA
07007 - PALMA DE MALLORCA
(ILLES BALEARS)

Dirección Operación Sistema Eléctrico Canario (Sede Las Palmas de Gran Canaria)
CL. LEÓN Y CASTILLO Nº 1
35003 - LAS PALMAS DE GRAN CANARIA
(LAS PALMAS)

Dirección Operativa Sistema Eléctrico Canario (Sede Tenerife)
NUESTRA SEÑORA DE LA TEXNURA (LOS MELLIZOS)
38108 - SAN CRISTOBAL DE LA LAGUNA
(S.C. DE TENERIFE)

Fecha de validación: 1 de junio de 2006
Validation Date

AENOR Asociación Española de Normalización y Certificación

Por AENOR El Director General
On Behalf of AENOR The General Manager

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ANEXO 1

Location maps

of the environmental processing and supervision of the facilities being planned an those constructed in 2005

Environmental processing of projected facilities

Facilities being processed by environmental bodies

L/ Adrall-Frontera with Andorra

L/ Almaraz-San Serván

E.S. San Serván

L/ Almaraz-San Serván-Brovales-Guillena

L/ Aparecida-Tordesillas

L/ Arcos de la Frontera-Cartuja

L/ Arcos de la Frontera-La Roda de Andalucía

L/ Astilleros-Cacicedo

L/ Bescanó-French Border E.S. in Santa Llogaia

L/ Bescanó-Riudarenes

E.S. Riudarenes

L/ Boimente-Pesoz

L/ Brazatortas-Manzanares

L/ Manzanares-La Paloma

E.S. Manzanares

L/ Brazatortas-Puertollano

E/S in the E.S. in Brazatortas of the L//Valdecaballeros-Guadalquivir medio

E.S. Brazatortas

L/ Pinilla-Ayora-Cofrentes

E/S in the S.E. in Morata-L/La Torrecilla-Villaverde

E.S. Villaverde

E.S. La Torrecilla

L/ Cabra-Guadalquivir medio

L/ Cabra-La Roda de Andalucía

E/S in the S.E. in Cabra-L/Guadalquivir medio-Tajo de la Encantada

E.S. Cabra

E.S. Roda de Andalucía

L/Cártama-Alhaurín-Los Montes

L/Cártama-Alhaurín-Tajo de la Encantada

L/Cártama-Los Ramos-Casares

L/Cártama-Tajo de la Encantada

E.S. Cártama

L/ Cartuja-Puerto Real

E/S in the E.S. in Abanto-L/Penagos-Güeñes

E/S in the E.S. Almodóvar del Río-L/Casillas-Villanueva del Rey

E.S. Almodóvar del Río

E/S in the E.S. in Gazules-L/Alcores-Pinar del Rey

E/S in the E.S. in Gazules-L/Casares-Puerto Real

E.S. Gazules

L/ Jordana-Casares

E/S in the E.S. in Jordana-L/Alhaurín de la Torre-Pinar del Rey

E/S in the E.S. in Jordana-L/Bahía de Algeciras-Los Ramos

E/S in the E.S. in Jordana-L/Pinar del Rey-Tajo de la Encantada

E.S. Jordana

E/S in the E.S. in La Salzadella-L/La Plana-Vandellós

E.S. Salzadella

E/S in the E.S. in Torremendo de la L/ Escombreras-Rocamora

L/ Torremendo-S.M. Salinas

E.S. Torremendo

E/S in the E.S.: of Treto-L/Astilleros-Penagos

L/ Litoral-Benahadaux

L/ Galapagar-Moraleja de Enmedio

L/ Güeñes-Itxaso

L/ Interconexión Spain-Balearic Islands

L/ La Plana-Morella

L/Lada-Velilla

L/ Manzanares-Romica

L/ Mazaricos-Tambre-Tibo

L/ Pesoz-Salas

E.S. Pesoz

L/ Puente de San Miguel-Cacicedo

L/ Santa Engracia-El Sequero

L/ Santa Engracia-Oncala

L/ Segovia-Galapagar

L/ Trives-Aparecida

L/ Tordesillas-Segovia

E.S. San Fernando de Henares

E.S. Aguayo

E.S. Bescanó

E.S. La Lora

E.S. Puebla de Don Rodrigo

E.S. Requena

Environmental supervision of new facilities under construction

New lines under construction	New substations under construction
L/Balboa-Frontera-Portuguesa	Abanto
L/Castejón-Muruarte	Brovales
L/Nueva Escombreras-El Palmar	El Palmar
E/S Catellet-L/Foix-Viladecans L/Castellet-La Gornal	Fausita
E/S El Palmar-L/Litoral Rocamora	La Lora
E/S La Espluga - L/Ascó-Begues	La Roda de Andalucía
E/S E.S. La Lora	La Espluga
	Morvedre
	Muruarte
	Segovia

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