

## **ENVIRONMENTAL DIMENSION**

A heavy wager on clean energy generation and the defense of the environment forms the basis of IBERDROLA RENEWABLES's strategy. The Company, which works within a more sustainable model of the electricity industry in order to ensure the supply of electrical energy to society, uses its resources in a manner that contributes to the fight against climate change. It has minimized the impact of its technologies thanks to two specific policies of the Company: the Environmental Policy and the Biodiversity Policy.

## 1. MANAGEMENT APPROACH

IBERDROLA RENOVABLES has established a series of corporate policies that apply to the whole Group and that establish Basic Principles of Performance that will gradually be applied to all its activities and business units.

IBERDROLA RENOVABLES has approved two specific policies with regard to the environment: the Environmental Policy and the Biodiversity Policy, both available in the “Our Policies” section on the website:

**[www.iberdrolarenovables.es](http://www.iberdrolarenovables.es)**.

Through the Environmental Policy, the Company makes a commitment to promote innovation and ecoefficiency (reduction of environmental impact by production unit), to gradually reduce the environmental impacts of its activities, facilities, products and services, and to strive to harmonize the development of its activities with the legitimate right of future generations to enjoy a suitable environment. With this policy, the Company promotes the commitment that the various levels of the organization will progressively incorporate respect for the environment into the planning and development of the Company's activities. Also, all employees of the Company, with their daily work, will contribute to meeting the objectives adopted in this field.

To ensure that these commitments are put into practice, the Company's activities will be guided by the following Basic Action Principles:

- Full integration of the environmental dimension and respect for the natural environment into the strategy of the Company.
- Establishment of appropriate Management Systems that help to reduce environmental risks and that include:
  - ✓ Strict compliance with the law, the various international commitments that have been executed, and internal rules regarding the environment.
  - ✓ Ongoing effort to identify, assess and reduce negative environmental effects of the activities, facilities, products and services of the Company.

- Promotion of behavior in line with the principles of this policy among the principal stakeholders of the Company, assigning positive value to alignment therewith, particularly in the selection of contractors and suppliers.
- Establishment of a constructive dialogue with the government agencies, NGOs, shareholders, customers, local communities, and other stakeholders.
- Transparency reporting on environmental results and activities, establishing appropriate channels to favor communication with the principal stakeholders.

The Company, which has also approved a Biodiversity Policy, recognizes that social development is strongly linked to the use of natural resources, affecting their availability, as well as with natural systems and the services provided by ecosystems, which can occasionally cause a decrease in biological diversity. The scientific community agrees that there is currently an accelerated loss of this natural capital and of biodiversity, which are essential to the survival of the human species, as well as to its very well-being and to sustainable development.

The preservation of biodiversity is also an issue that is raising increasing attention from some of the principal stakeholders of the Company, such as NGOs, government administrations, and socially responsible investment groups.

Some of the Basic Action Principles that this policy establishes are:

- Integration of the preservation of biological diversity into the Company's strategy, including consideration thereof in decisions on the execution of infrastructure projects.
- Promotion of the in-house biodiversity training of Company personnel.
- Application of a preventive focus to minimize the impacts of new infrastructure on biodiversity, bearing in mind the complete life cycle, including the stages of implementation, operation, and dismantling, for which purpose environmental guidelines shall be prepared for each type of infrastructure project to be carried out by the Company.

These policies are gathered in the Corporate Social Responsibility Policy of the Company, which establishes the principles and practices of social responsibility that meet the needs and expectations of the stakeholders. The Corporate Social Responsibility Policy of the Company is also available on the website **[www.iberdrolarenovables.es](http://www.iberdrolarenovables.es)**.

The adoption and application of new knowledge about the environmental impacts of the development of wind farms improve the process of evaluation thereof. IBERDROLA RENOVABLES has adopted a Code of Good Environmental Practices. This Code is provided to any contractor that gains

**IBERDROLA RENOVABLES bases its business strategy on the wager for change toward a more sustainable electricity sector.**

access to the facility to do maintenance work. Following these practices reduces the impacts on ecosystems and local communities.

At IBERDROLA RENEWABLES, environmental responsibilities are distributed among all the organizational and hierarchical levels. In this way, all the personnel of IBERDROLA RENEWABLES are assigned an environmental profile and no one remains apart from environmental management. These profiles are in line with the environmental implications and repercussions that might arise from the activity being performed. A training plan is established on an annual basis in coordination with Human Resources, with the various environmental profiles in mind.

IBERDROLA RENEWABLES forms a part of the overall environmental management system of the IBERDROLA Group, which includes all the business and corporate areas. Implementation thereof allows for a reduction in environmental risks associated with their activities, as well as an improvement in the management of resources and the optimization of investments and costs. This Environmental Management System is in keeping with the directives incorporated into the Environmental Policy approved by the Board of Directors of IBERDROLA RENEWABLES. In Spain, all facilities operate pursuant to the standards of an Environmental Management system in accordance with ISO standard 14001:2004.

As a part of the installed environmental management systems, these systems provide for the monitoring and measurement of the environmental performance of the processes carried out. Within this framework of performance, objectives for improving the environmental behavior are described annually; the objectives are approved and revised by the corresponding Division and periodic tracking of those objectives is performed. In Spain, two auditing processes have been carried out in the annual planning of the Environmental Management System.

Furthermore, a review of emergency practices has entailed significant improvement in the response quality and capacity of the organization. The informational and training days that have been being developed with the Fire Fighting Services of the various locations (firefighters) and the training days of the Basic Fire Prevention Course have been especially significant in this field.

In the United Kingdom, SCOTTISHPOWER RENEWABLES has prepared an Environmental Strategy that establishes the approach that the Company will adopt for this business in the future. The major points of action of the Strategy have been included during 2008 in the Environmental Plan, which establishes key indicators and quantifiable goals for such indicators. It also establishes the focus that SCOTTISHPOWER

Beinn Tharsuinn wind farm (Scotland).



## The Company guarantees the supply of energy through the development of clean technologies, which contributes to the fight against climate change.

RENEWABLES will adopt for the implementation of IBERDROLA RENEWABLES' Environmental Policy. Environmental performance is reported to the Environmental Forum. This body, in turn, meets regularly to communicate such performance to society.

In addition, one of the great achievements of the commencement of the Environmental Strategy has been the development of an Environmental Management System based on the international ISO Standard 14001, the implementation of which is planned for 2009. The previous system (OEMS) has been revised for adaptation to this new system.

The Environmental Management System will cover all activities, where appropriate, related to the development, construction, operation, maintenance, and dismantling of the renewable energy generation plants. Currently it is limited to land-based wind plants, although the goal is to implement it at all offshore wind, biomass, and other generation facilities that may be placed into operation.

The structure and responsibilities of the environmental management are established in the Environmental Organisation and Arrangements documents. In 2008, the position of Senior Environmental Specialist was established as the person in charge of the environmental management of the activities of the business unit in the United Kingdom. In addition, an environmental training network is being developed for all personnel.

Monitoring of preventive and corrective measures is carried out during the construction phase as well as the operating phase. In the first phase, "Lessons learned" meetings are held periodically among the construction team. These are communicated for adoption in future projects. In the second phase, a Yellow Hazard Card system is established, on the basis of which a database is created that stores all the incidents and measures adopted. This data are is at the industrial level through forums.

In the United Kingdom, nine environmental audits of the Environmental Management system implemented in accordance with ISO standard 14001 have been carried out at facilities in both the construction phase and the maintenance phase. SCOTTISHPOWER RENEWABLES hopes to obtain ISO 14001 certification once the Environmental Management system has been completely implemented.

In the United States, IBERDROLA RENEWABLES holds a leadership position in the promotion and production of renewable energy, for which it received several recognitions and awards during 2008.

The Environmental Policy, called "People and the Environment First," states the commitment of the Company to comply with the law and to minimize environmental impacts in the performance of its activities through the adoption of good environmental practices.

IBERDROLA RENEWABLES has implemented an Environmental Management System, updated with the Environmental Policy of IBERDROLA RENEWABLES as a reference. In spite of not being certified, the elements for the management of environmental aspects follow the basis of ISO 14001, as well as the corresponding laws and regulations.

IBERDROLA RENEWABLES has prepared the first Bird and Bat Protection Plan developed for a United States wind farm, which places it among the companies with the best practices in the wind industry in that country.

Moreover, there is a head in charge of authorizations who is participating in the US Fish and Wildlife Task Force, working on establishing principles for the development of wind plants with other stakeholders. IBERDROLA RENEWABLES is also collaborating with stakeholders in numerous states.

Community Energy has received many distinctions for its activities, as well as its customers for the use of green energy, which reflects the promotion of alternative energies as a fundamental part of its strategy.

In the rest of the international panorama, the various subsidiaries at all times follow the directives regarding the environment established in the corresponding national and European Community laws. The objective for these companies is to gradually get closer to the best practices with regard to environmental management until they reach the establishment of a certified Environmental Management System.

## 2. ENVIRONMENTAL PERFORMANCE INDICATORS

In this section, a general overview is provided with respect to the following environmental aspects: materials, energy, biodiversity, emissions, effluents and waste.

The information reported by IBERDROLA RENOVABLES corresponds to the facilities in operation which are monitored from the Environmental Management System.

### Aspect: Materials

#### EN1. Material used by weight or volume.

Within the IBERDROLA RENOVABLES Group, the principal materials consumed consist of construction materials for wind farms. These materials are only considered during the phases of constructing and dismantling the farms. During the operating phase of the wind farms, no additional materials are used, with the exception of materials for maintenance (for example, oils, lubricants, spare parts, etc.). By volume in relation to the principal activity of the Company, the generation of wind energy, the consumption of these materials is not considered significant.

#### EN2. Percentage of materials used that are recycled input materials.

This indicator is not relevant for the IBERDROLA RENOVABLES Group due to the activity conducted by the Company. During the operating phases of the wind farms, no type of material is used; energy is generated through the force of wind. Only during the construction phase does the Company invest in materials, those that are used for the infrastructure of the wind farms, which can only be recovered and recycled at the end of their service life, and are converted into scrap.

### Aspect: Energy

#### EN3. Direct energy consumption by primary energy source.

The activity carried out by the IBERDROLA RENOVABLES Group is that of generating renewable energy from inexhaustible sources, primarily wind farms, which consumes practically no primary energy in the process.

At the Klamath plant, IBERDROLA RENEWABLES<sup>8</sup> consumes natural gas as fuel. During 2008, approximately 615,781 m<sup>3</sup> of natural gas (under normal pressure and temperature conditions) was consumed to produce a gross 3,127 GWh.

<sup>8</sup> This information has been updated with respect to the information in IBERDROLA's 2008 Sustainability Report.

#### EN4. Indirect energy consumption by primary energy source.

The activity carried out by the IBERDROLA RENOVABLES Group is that of generating energy from renewable sources, for which the indirect consumption of energy is not significant compared to the volume of renewable energy that is generated. An estimated calculation based on an extrapolation of the consumption of the wind farms in Spain shows that the indirect consumption of energy from the grid for signal lights, start-up of motors, etc., is less than 0.4% of the energy generated.

With regard to consumption in the offices of the IBERDROLA RENOVABLES Group, given that they are managed jointly with the offices of the IBERDROLA Group, the Company does not have separate data available, reporting jointly with the rest of the companies in the IBERDROLA Group. For additional information, please see IBERDROLA's 2008 Sustainability Report which is available at [www.iberdrola.es](http://www.iberdrola.es).

At the Klamath plant, IBERDROLA RENEWABLES' approximate self-consumption is reflected in the following table:

Self-consumption of energy (GJ)	2008	2007	2006
IBERDROLA RENOVABLES Group	319,311	146,218	N/A

#### EN5. Energy saved due to conservation and efficiency improvements.

The activity carried out by the Company is that of generating energy from renewable sources, primarily wind. As has been described above, the consumption of electricity by the IBERDROLA RENOVABLES Group cannot be considered significant in relation to the renewable energy generated. Also, the IBERDROLA RENOVABLES Group invests in efficiency improvements in the generation processes as part of its business strategy, with the aim of increasing the output of the various generation technologies currently in use and is researching and developing new renewable energy sources for the future that are even more efficient, sound, and profitable.

### Aspect: Water

#### EN8. Total water withdrawal by source.

The activity carried out by the IBERDROLA RENOVABLES Group is that of generating renewable energy, primarily wind energy; therefore, the consumption of water primarily occurs at the offices and maintenance buildings of the wind farms and is considered insignificant. By way of example, in 2008, the consumption of water at wind farm monitoring facilities in Spain and the United Kingdom was 667 m<sup>3</sup>.

## The Company's Biodiversity Policy commits it to take into account the effects of its operations on the environment.

As regards consumption at the offices of the IBERDROLA RENEWABLES Group, given that they are managed jointly with the offices of the IBERDROLA Group, the Company does not have separate data available, reporting jointly with the rest of the companies in the IBERDROLA Group. For additional information, one can view IBERDROLA's 2008 Sustainability Report, which is available at its website [www.iberdrola.es](http://www.iberdrola.es). In all cases, the water comes from public water supply facilities.

In the particular case of the Klamath plant, water from a local sewage treatment plant is consumed for the cooling systems, as described in indicator EN21.

### **EN9. Water sources significantly impacted by withdrawal of water (ADD).**

No withdrawals of water are made in the IBERDROLA RENEWABLES Group that could significantly affect water

resources or related habitats, due to the fact that the Company's principal activity is the generation of wind energy.

The only withdrawal of water that occurs is at the mini-hydroelectric plants. At this type of plant, the capacity of which is less than 10 MW, it is not always necessary to include a dam in the facility, and if there is one, it must not exceed 15 meters in height. These characteristics mean that the mini-hydroelectric plants can be considered a source of renewable energy that do not generate negative environmental impacts on the ecosystems in which they are located, provided that the ecological flow is respected.

In Spain, at the close of fiscal year 2008, IBERDROLA RENEWABLES had an installed mini-hydroelectric energy capacity of 342 MW and 135 power plants, including most notably the Loriguilla Plant (Valencia), the Talavera Plant (Toledo), the Gavilanes Plant (Ávila), and the Fuensanta Plant (Albacete).

For facilities in operation in Spain that are being monitored through the Environmental Management System, preliminary studies are being performed regarding the technical and economic feasibility of improving the management of the following aspects of the mini-hydroelectric facilities:

La Retorna mini-hydro plant (Logroño).



- Monitoring of the ecological flow.
- Monitoring of the discharge of hydrocarbons into channel beds.

### Aspect: Biodiversity

#### EN11. Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.

In Spain, with regard to the Nature Network (Red Natura) (ZEPAs and LICs), some of the facilities pre-exist the declarations of Common Interest Areas (Lugares de Interés Comunitario) (LIC) or Special Bird Protection Areas (Zona de Especial Protección para Aves) (ZEPA), mainly in the case of the mini-hydroelectric plants.

In keeping with the strategic commitment of the Company to renewable energy, in those cases in which infrastructure is installed on a space within the 200 Nature Network, the reconciliation of the natural aspects for which that Natural Space has been proposed with the installation of the infrastructure will be a priority, so that two fundamental objectives for IBERDROLA RENOVABLES will be achieved: guaranteeing the supply of electricity, thus reducing the energy dependence of the country, and protecting the environment.

To do this, whatever studies and instructions are approved by the government and other bodies are rigorously applied in the Environmental Assessment phases. Therefore, in Spain, Environmental Impact Studies (which are conducted several years before the installation of the project is set in motion), preliminary environmental reports on avian fauna, and environmental evacuation corridors, as well as environmental restoration projects after the completion of a wind farm, are carried out.

In the case of wind farms, the table below reflects the limited surface harm that those farms represent out

of the total area included in 2000 Nature Network in Spain.

In Greece, where the Company has a presence through ROKAS RENEWABLES<sup>9</sup>, only two operational wind farms are located in protected areas of the Nature Network.

The IBERDROLA RENOVABLES Group has no facilities located in protected areas in the United Kingdom, the United States, Poland or France.

#### EN12. Description of significant impacts of activities, products and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.

The documents, “*Environmental effects of the production and distribution of electrical energy: actions for the control and correction thereof and alternative production technologies*” [“*Efectos ambientales de la producción y distribución de energía eléctrica: acciones para su control y corrección y tecnologías de producción alternativas*”] and “*Introduction to the concept of Management of Biodiversity at the Company*” [“*Introducción al concepto de Gestión de la Biodiversidad en la Empresa*”] available at [www.iberdrola.es](http://www.iberdrola.es), reflect the most significant impacts of the activities, products, and services of the Group on biodiversity in protected areas and in areas of high biodiversity value outside protected areas.

#### EN14. Strategies, current actions and future plans for managing impacts on biodiversity.

IBERDROLA RENOVABLES has approved a Biodiversity Policy in which it is established that the Company agrees to take effects on biodiversity into account in the planning, implementation and operation of its energy infrastructures, as well as to raise public awareness about the magnitude of this challenge and about possible actions that contribute to the conservation of biodiversity.

### PRESENCE OF WIND FACILITIES IN PROTECTED SPACES

#### 2008

Total Area of Autonomous Community* (ha)	LICs		ZEPAs		IBERDROLA RENOVABLES Wind Farms		
	Total Area LICs (ha)	% of Aut. Comm. Territory	Total Area ZEPAs (ha)	% of Aut. Comm. Territory	Total Area in Nature Network (ha)	% en ZEPA	% en LIC
50,649,688	12,371,595	24.43	9,711,150	19.17	139.14	0.00038	0.00083

\*Translator's note: CC.AA. means Autonomous Communities.]

#### 2007

Total Area of Autonomous Community (ha)	LICs		ZEPAs		IBERDROLA RENOVABLES Wind Farms		
	Total Area LICs (ha)	% of Aut. Comm. Territory	Total Area ZEPAs (ha)	% of Aut. Comm. Territory	Total Area in Nature Network (ha)	% en ZEPA	% en LIC
50,649,688	11,909,636	22.21	9,237,745	17.95	139.14	0.000399	0.000858

<sup>9</sup> This information was not reported in the IBERDROLA Report because it was not available as of the close of the reporting period.

This commitment is undertaken and promoted through this policy with the aim that the various levels of the organization of the Company will gradually integrate the analysis of the effects and the actions for conserving biodiversity into the planning and subsequent development of the Company's activities. It also provides that all IBERDROLA RENOVABLES employees will contribute to meeting the objectives adopted in this field in their daily work.

This policy also establishes the Basic Action Principles, including the following:

- Application of a preventive approach to minimize the impacts of new infrastructures on biodiversity, bearing in mind its entire life cycle, including the stages of implementation, operation and dismantling, for which purpose environmental guidelines shall be prepared for each type of infrastructure project to be carried out by the Company.
- Incorporation of this preventive approach into the Environmental and Social Impact Assessments of new projects, particularly in natural areas that are sensitive, biologically diverse or protected.
- Integration of biodiversity into the Company's Environmental Management Systems (EMS), setting goals and indicators, as well as standards for the control, monitoring and audit thereof within the framework of the EMS.
- Participation in research, preservation, educational, and sensitization projects, cooperating with government agencies, NGOs, local communities and other stakeholders in the development of these projects.

The IBERDROLA RENOVABLES Group also operates in compliance at all times with the laws and regulations of the various countries in which it operates, which provide for the obligation to protect biodiversity and habitats.

In addition, SCOTTISHPOWER RENEWABLES has a Sustainable Development Policy and a Biodiversity



Conservation Strategy that serve as a guide to ensure sustainability in decision-making processes and in process development.

A Biodiversity Conservation Strategy is established for the development of new and existing wind farms. The principal strategic guidelines are those described below, which will later materialize in specific objectives:

- "To promote and establish the appropriate management of the most representative habitats on the national and international level and their species on wind farms throughout the country."
- "To promote sustainable wind farms through the development of research on environmental impacts and to develop the best practices to correct impacts."

This entire focus on managing biodiversity within the IBERDROLA RENOVABLES Group is reflected in the performance that the Company has achieved in this area during fiscal year 2008, in accordance with the following lines of action:

#### For wind farms.

In Spain, IBERDROLA RENOVABLES has monitored terrestrial fauna, avian fauna and bats and has carried out environmental and vegetation restorations during the operating phase of the wind farms. It has also implemented a geographical information system for monitoring aspects of the environmental management of the facilities from their design phase up to the operating phase. For the Promotion Phase of wind farms, the following actions have been carried out:

- Avian fauna and bat studies.
- Preparation of a Good Environmental Practices Manual for the installation of wind farms.
- Environmental and vegetation restorations.
- Installation of bird-protection beacons on the electrical energy evacuation lines.

**IBERDROLA RENOVABLES invests to improve efficiency in generation processes and to develop new sources of renewable energy.**





In the United Kingdom, SCOTTISHPOWER RENEWABLES has successfully achieved many of the goals for improving the management of biodiversity through Habitat Management Plans (HMPs). These plans have been set up at the following wind farms: Beinn an Tuirc, Cruach Mhor, Black Law, Beinn Tharsuinn, Wether Hill, Whitelee, Greenknowes, Hagshaw Ext, Dunlaw Ext, and Beinn an Tuirc 2.

At the present time, SCOTTISHPOWER RENEWABLES has 59.3Km<sup>2</sup> managed by the HMPs in the wind farms in operation and 2.6Km<sup>2</sup> in the farms that are in the construction phase. In total, these habitat management areas cover about 62 Km<sup>2</sup>. For additional information on these projects, see [http://www.scottishpowerrenewables.es/pages/summary\\_of\\_plans.asp](http://www.scottishpowerrenewables.es/pages/summary_of_plans.asp).

In the United States, IBERDROLA RENEWABLES completed the Avian and Bat Protection Plan, the first in the United States wind energy industry. This Plan establishes an internal process that will aid the company in responsibly developing wind energy. This Plan takes into account the migratory periods of birds, the reproduction periods of the species, and other federal and state regulations. IBERDROLA RENEWABLES has been working for approximately one year with the Migratory Bird Program and the Office of Law Enforcement to develop and improve the plan.

The IBERDROLA RENEWABLES project includes the corporate Biodiversity Policy and establishes a process for maintaining relations with agencies and non-governmental organizations near the sites for the evaluation of projects at their different stages. For additional information, the plan is available at [www.iberdrolarenewables.us/pdf/Signed\\_ABPP\\_10-28-08.pdf](http://www.iberdrolarenewables.us/pdf/Signed_ABPP_10-28-08.pdf).

In Greece, ROKAS RENEWABLES has prepared a series of studies in 2008 for the development of several wind farm projects, which are listed below:

- Eleven preliminary Environmental Impact Studies.
- Four studies of avian fauna for wind farm projects.
- Two reforestation studies.

In France, IBERDROLA RENEWABLES conducted a study in 2008 to monitor the avian fauna of the Fitou wind farm.

In addition, as regards responding to accidents and incidents, there are a large number of oil spill control plans set up at the wind farms of the IBERDROLA RENEWABLES Group in 2008, which will aid in protecting biodiversity and the environment from the most common chemical risks at the wind farms. Also, the management of environmental emergencies caused by fires at wind farms has improved.

#### For mini-hydroelectric plants.

In Spain, IBERDROLA RENEWABLES has monitored terrestrial fauna, avian fauna and bats, and has carried out environmental and vegetation restorations during the operating phase of mini-hydroelectric plants. It has also fenced in and cleaned waterways, and small-mesh grilles and gratings, sound barriers, and ramps have been installed in waterways. Fish ladders have been inspected and preserved.

Within the Environmental Objectives Program of the Environmental Management System, a study has been conducted to minimize the environmental impact on local flora and fauna caused by the use of oils, greases, and lubricants at mini-hydroelectric production plants.

In Greece, two Preliminary Environmental Impact Studies were completed in 2008 within the framework of preparing two new mini-hydroelectric plants.

## Almost all of IBERDROLA RENEWABLES' installed capacity (94%) comes from sources that do not emit CO<sub>2</sub> into the atmosphere.

### Case Studies on the Protection of Biodiversity.

In the United States, IBERDROLA RENEWABLES has developed the Casselman project to check the effect of stopping the turbines in light wind conditions to prevent bat deaths and to determine the reduction in the total electricity generated during the shutdowns.

MERLIN radar has been installed at the Peñascal wind farm project to contribute to preventing bird and bat injuries and deaths related to the turbines. The radar detects bird and bat activity at a distance, even in conditions of low visibility, making it possible to stop the turbines and reduce the risk of injuries and deaths.

### Cooperation Agreements with NGOs and Government Agencies.

Various agreements were signed in 2008 with government agencies, NGOs and other companies dedicated to environmental protection and biodiversity, such as those signed in Spain to make use of Residual Forest Biomass.

In the United Kingdom, the channels of communication that SCOTTISHPOWER RENEWABLES maintains with neighboring communities, which include "Community Liaison Meetings" throughout the life of the project, are noteworthy. "Community Trust Funds" are also set up for the operating period of the project. Local projects of an environmental, charitable, or educational nature are also promoted.

In the United States, IBERDROLA RENEWABLES has established cooperation agreements with The American Wind and Wildlife Institute (AWWI), Bat Conservation International, and The Bats and Wind Energy Cooperative (BCI/BWEC). This last cooperative is developing the monitoring of various projects of IBERDROLA RENEWABLES in the United States.

### Aspect: Emissions, effluents and waste

#### EN16. Total direct and indirect greenhouse gas emissions by weight.

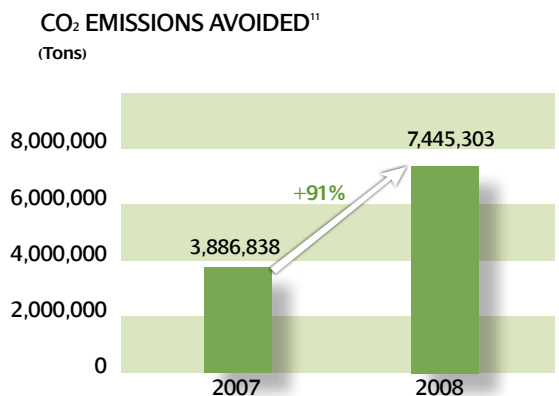
Almost all installed capacity (94%) comes from sources that do not emit CO<sub>2</sub> into the atmosphere, while the

remaining 6% comes from some of IBERDROLA RENEWABLES' facilities in the United States. Those plants, and especially the Klamath cogeneration plant, are among the most advanced in the world. At the time it was put into service, the Klamath plant was the cleanest plant ever installed in the United States in terms of CO<sub>2</sub> emissions.

1,154,421 tons of CO<sub>2</sub>, 125.7 tons of CO, and 9.2 tons of volatile organic compounds were generated at the Klamath Plant<sup>10</sup>.

The remaining activities of the IBERDROLA RENEWABLES Group cannot be evaluated by their emissions, since they are renewable energy facilities and do not emit CO<sub>2</sub>. Therefore, the reference indicator that allows for an evaluation of their environmental performance is the volume of CO<sub>2</sub> emissions avoided. To calculate the emissions avoided, the free release of emissions in a specific country and the generation mix of that country (see emission factor table) are taken into account. According to these calculations, the emissions avoided by the IBERDROLA RENEWABLES Group in 2008 amount to 7,445,303 tons of CO<sub>2</sub>, based on a production total of 16,998 GWh.

Also, in the last year, the CO<sub>2</sub> emissions avoided by the production of the IBERDROLA RENEWABLES Group has increased by 91% due to the increase in our generation plants using clean technologies, which reinforces the Company's commitment to caring for the environment.



<sup>11</sup> The data on CO<sub>2</sub> emissions avoided in 2007 do not agree with those reported in the 2007 Sustainability Report due to being pro forma MW.

<sup>10</sup> The data on the Klamath plant correspond both to the principal Klamath cogeneration plant and the 117.6 MW secondary plant that handles peak demand, which operates intermittently.

The table below shows the total tons of CO<sub>2</sub> avoided per GWh produced:

IBERDROLA RENEWABLES Group	Production	Tons of CO <sub>2</sub> avoided
	[GWh]	[TNs CO <sub>2</sub> ]
	16,998	7,445,303

The amount of tons of CO<sub>2</sub> avoided has been calculated based on the emission factors of the generating mix (tons of CO<sub>2</sub>/MWh) of the various countries in which the IBERDROLA RENEWABLES Group operates, according to the following source: "CO<sub>2</sub> Emissions per kWh from Electricity and Heat Generation" from the International Energy Agency's report "CO<sub>2</sub> EMISSIONS FROM FUEL COMBUSTION 2008 Edition. Emission factors for 2006" and the renewable production of the IBERDROLA RENEWABLES Group in the various countries in which it operates.

The CO<sub>2</sub> emissions avoided by the IBERDROLA RENEWABLES Group during the last year increased by 91% due to the increase in our generation plants using clean technologies.



## One of the principal objectives in waste management is to gradually set up minimization and recycling plans.

### EN17. Other relevant indirect greenhouse gas emissions by weight.

This type of indirect greenhouse gas emissions does not come from the principal activity of the IBERDROLA RENOVABLES Group, but rather is indirectly induced by the Company. It involves indirect emissions of CO<sub>2</sub> associated with the consumption of energy used in offices, as well as emissions associated with the consumption of fuel used in employee travel. As has already been noted in previous indicators (EN4 and EN8), the Company does not have separate data available, reporting jointly with the other companies of the IBERDROLA Group. For additional information, see IBERDROLA's 2008 Sustainability Report, which is available at [www.iberdrola.es](http://www.iberdrola.es).

### EN18. Initiatives to reduce greenhouse gas emissions, and reductions achieved.

The operating regimen of the Group's production facilities has avoided the generation of CO<sub>2</sub> emissions as described in EN16. Additional information about other initiatives can be found in indicator EN5.

### EN19. Emissions of ozone-depleting substances by weight.

Chlorofluorocarbons (CFC) and halons, long used as coolants and propellants, affect the ozone layer if they are released into the atmosphere. At the Group's facilities, ozone-depleting substances have a very limited presence and may be located in the offices and buildings for operational control of the wind farms, primarily in fire extinguishing equipment.

All the equipment is maintained in accordance with the provisions of current regulations. The only emissions into the atmosphere originating from these confined products are those arising from possible leaks, which are practically insignificant.

As specified in the international conventions on the management of chemical products that are harmful to the ozone layer, the use thereof will be restricted in most countries beginning in 2010. Therefore, the policy of IBERDROLA RENOVABLES is based on gradually reducing their presence within its facilities.

As pointed out in indicator EN17, since the offices of the IBERDROLA RENOVABLES group are managed jointly with the offices of the IBERDROLA Group, the Company does not have separate data available, reporting jointly with the other companies of the IBERDROLA Group. For additional information, see IBERDROLA's 2008 Sustainability Report, which is available at [www.iberdrola.es](http://www.iberdrola.es).

### EN20. NO<sub>x</sub>, SO<sub>2</sub> and other significant air emissions by type and weight.

This indicator only applies to the cogeneration and combined cycle plant in the United States, the Klamath plant, which emitted 6.1 tons of SO<sub>2</sub>, 157.2 tons of NO<sub>x</sub>, and 18.4 tons of particles into the atmosphere during 2008.

The remaining activities of the Company do not generate this type of atmospheric emissions since the principal activity of IBERDROLA RENOVABLES is characterized by its environmental sustainability, generating renewable energy from renewable sources.

### EN21. Total water discharge by quality and destination.

Given the nature of the activities carried out by the IBERDROLA RENOVABLES Group, there is no water discharge, with the exception of the discharge at the Klamath plant in the United States, where most of the water used in the cooling processes comes from the treatment plant, of which 1/3 evaporates and 2/3 returns to the treatment plant with the proper pH and without a change in the water quality. Only 1% of the water used at the plant is potable and suitable for human use.

In addition, in Spain the discharge of wastewater into septic tanks has been ended. Practically all septic tanks were closed down in 2008. It is anticipated that the pending work will be finished during 2009, at which time

Use of water in production facilities in 2008	Consumption		
	Collection (m <sup>3</sup> )	Consumption in cooling. Evaporated water (m <sup>3</sup> )	Discharge (m <sup>3</sup> )
IBERDROLA Renovables Group	6,656,560	2,218,853	4,437,706

this project will be considered completed. The total work done is summarized in the following figures: 13 facilities have been closed in Castilla y Leon and 24 facilities have been closed in Castilla-La Mancha, while two others are still in the process of being closed down. These projects have involved an investment of €104,185 and €175,200 respectively.

## EN22. Total weight of waste by type and disposal method.

Below is a summary of the hazardous and non hazardous waste generated by the IBERDROLA RENEWABLES Group during 2008.

In Spain, the facilities in operation which are monitored through the Environmental Management System generated a total of approximately 95 tons of non-hazardous waste, including organic waste, typical urban waste, and inert waste and waste that can be rendered inert. For this type of waste, IBERDROLA RENEWABLES maintains minimization and recycling plans in addition to awareness raising campaigns that will be of advantage in the adoption of good environmental practices by employees.

With respect to the generation and management of hazardous waste, in facilities in operation which are monitored through the Environmental Management System, a total of approximately 461 tons of hazardous waste were found, including hydrocarbon waste or waste impregnated with hydrocarbons, as well as impregnated containers, selective collection waste, and emulsions, of which 320 tons were recycled, which means that 69% of Hazardous Waste was recycled in Spain.

In addition, in the various areas, actions are carried out to minimize and improve the management of the hazardous waste generated, which actions are part of the certified environmental management system. The waste is delivered periodically to authorized handlers for proper treatment.

In the United Kingdom, SCOTTISHPOWER RENEWABLES generated nine tons of non-hazardous waste at the facilities of internally managed wind farms in operation during fiscal year 2008. In the case of hazardous waste, more than nine tons were found, including oily waste, recycled oily waste, oil filters, rags, cartridges impregnated with oily substances, and impregnated drums.

In addition, the preparation of a Waste Compliance Register commenced in 2008 which will contribute to the management of all the wind farms in operation and will apply to those managed internally as well as by third parties. The establishment of a Waste Management Plan for each wind farm is also planned both for those

in the construction stage as well as in the operating phase, to record the waste generated and to promote the reduction, reuse and recycling thereof.

With respect to waste generated during the construction phase, SCOTTISHPOWER RENEWABLES stipulates that the principal contractors of the work have an Environmental Management System in compliance with ISO 14001.

With respect to the waste generated during the operating phase, SCOTTISHPOWER RENEWABLES has established an Operational Environmental Management System for internally managed wind farms. This System specifies the details of the responsibilities and procedures for the storage of waste and its storage facility. Some local initiatives have commenced, which include the separation and recycling of waste at the monitoring buildings for Black Law and Whitelee.

Furthermore, a recycling system for paper, plastic, CDs and batteries has commenced at SCOTTISHPOWER RENEWABLES's central office facilities in Cathcart (Glasgow), jointly with SCOTTISHPOWER's facilities.

In Greece, ROKAS RENEWABLES generated approximately 19.4 tons of hazardous waste, including air and oil filters, drums and containers with oil or chemical product waste, batteries and other hazardous waste.

In general, and with respect to the generation of this waste, IBERDROLA RENEWABLES is mindful of the need to raise awareness with regard to protecting the environment in order for the Company to be a model of good practices through its principal strength, its employees. To do this, one of the principal objectives in waste management is to gradually set up minimization and recycling plans.

In accordance with regulations in the United Kingdom, the generation of waste requires must comply with the 1991 Environmental Protection Regulations, which require that any transfer of waste be properly recorded in order to assist the transport of the waste. Furthermore, the regulations establish additional obligations on the part of the generators and managers of waste and any person in the supply chain to consider the manner in which the waste is handled.

On the other hand, polychlorobiphenyls (PCBs) are substances that are not generated through the activities of the Company, but rather have been marketed for years by manufacturers of electrical equipment and used primarily in transformers and capacitors due to their optimal dielectric properties. The IBERDROLA RENEWABLES Group is working to complete the elimination of PCBs in accordance with the current

## The activities of the IBERDROLA RENEWABLES Group, primarily the generation of wind energy and other renewable energies, produces insignificant negative environmental impacts.

laws and regulations in each country. In Spain, they must be eliminated by those who possess them by the dates reflected in the current laws and regulations (2010). To do this, IBERDROLA RENEWABLES has undertaken a review and declaration of inventory in accordance with applicable legislation and the annual declaration of equipment with PCBs dealing with the change in ownership that was carried out. The Autonomous Communities to which this declaration had to be submitted were: Cantabria, Castilla y Leon, Castilla-La Mancha, Valencia, Navarra, the Basque Country and Murcia. In total, the following equipment was declared: 12 capacitors (506 kg), 6 transformers (9,310 kg) and oil drums (5,326 kg). The total cost of the actions taken was 15,300 euros. Ninety analyses were conducted, 30 through internal control and 60 by certified laboratory. The total cost of the analyses conducted was 5,200 euros.

In Spain, the United Kingdom, and the United States, the IBERDROLA RENEWABLES Group is carrying out various activities to improve the control and reduction of emissions, spills and waste in line with the IBERDROLA Group's Environmental Management System, which provides a procedure for reporting accidents and incidents that occur at the facilities. In addition to periodic reviews, an annual review within the management process compiles data throughout each fiscal year that is used to derive all necessary corrective and/or preventive actions.

### EN23. Total number and volume of significant spills.

The IBERDROLA RENEWABLES Group, within the framework of its Environmental Management System, establishes plans for self-protection and emergency action and periodically carries out drills to prevent any type of environmental incidents from occurring at its facilities. Fire prevention plans and spill control plans are common. For example, in Spain, all facilities have a self-protection plan that is reviewed and renewed annually. The personnel of the facilities attend training days that are held annually at the work centers themselves, during which an emergency drill exercise is conducted. All contractors operating at the facilities also participate in these training days. In addition, in

the United States, many emergency plans have been developed in accordance with the requirements of the laws and regulations in force. The most harmful substance is ammonium anhydride at Klamath Energy, for which a safety management system has been developed, of which the entire staff is informed.

Due to all these efforts, there have been no incidents involving a significant spill<sup>12</sup> at the IBERDROLA RENEWABLES Group.

### Aspect: Products and services

#### EN26. Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.

The activities of the IBERDROLA RENEWABLES Group, primarily the generation of wind energy and other renewable energies, produces insignificant negative environmental impacts in relation to the positive impacts produced by the Group's activities. IBERDROLA RENEWABLES covers the energy demand of the societies in which it operates, contributes to the progress and sustainable development of those societies, cares for the overall environment, and contributes to the fight against climate change. In 2008, it avoided the emission of 7,445,303 tons of CO<sub>2</sub> into the atmosphere.

The company Community Energy in the United States is a tremendous promoter of "Green Energy" in businesses and has been recognized with many awards for its long list of industrial customers that purchase green energy. This provision of services leads customers to demand more green energy products and services that contribute to preserving the environment. The awards received reflect the leadership of Community Energy in the industry.

#### EN27. Percentage of products sold and their packaging materials that are reclaimed, by category.

This indicator is not relevant for the IBERDROLA RENEWABLES Group since the principal product it generates, electricity, does not generate any type of waste that can be reused.

### Aspect: Compliance

#### EN28. Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.

In Spain, certain environmental sanction proceedings of limited materiality were initiated during 2008, but there are no final decisions involving the payment of fines.

<sup>12</sup> A "significant spill" is understood to be a spill that causes damage to the environment outside the facility and that must be reported to the Government. During the operation and maintenance of facilities, small spills can occur inside the facilities which are appropriately treated and even reported if necessary.

In the international arena, during 2008, no environmental sanction proceedings were brought against any of the companies of the IBERDROLA RENOVABLES Group that operate in the various countries.

### Aspect: Overall

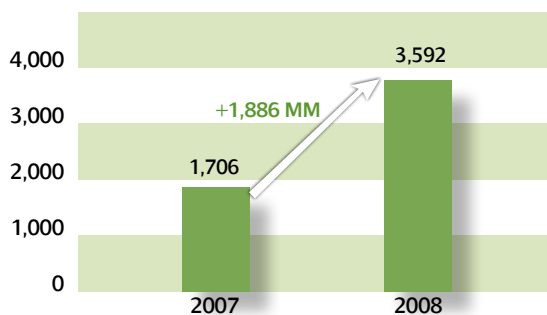
#### EN30. Total environmental protection expenditures and investments, by type.

The IBERDROLA RENOVABLES Group recorded 2.78 million euros in environmental expenses in 2008.

IBERDROLA RENOVABLES doubled its investment in clean generation facilities over the previous year, reaching 3,592 million euros in 2008 (See graph).

#### INVESTMENT IN CLEAN TECHNOLOGIES

(Millions of euros)



Some of the most emblematic projects in the area of environmental investment are described below:

#### Hammerfest marine energy project.

In the United Kingdom, during 2008, SCOTTISHPOWER RENEWABLES has been evaluating three coastal sites for the development of the largest marine energy project in the world. Two sites are located in Scotland, in Pentland Firth and in the South of Islay, and the third in Northern Ireland, on the North Antrim coast. A technical review, resource assessment, and scoping study were carried out as part of the feasibility study for the sites.

Each site is being evaluated for the installation of between 5 and 20 offshore turbines, which will generate a combined 60MW. It is proposed that the infrastructure complete the tests under the conditions of the Scottish coast, leading all the technological development of offshore wind farms up to 2011.

This marine infrastructure has been developed by Hammerfest Strøm AS, a company jointly owned by SCOTTISHPOWER RENEWABLES, StatoilHydro, and Hammerfest Energi.

The Hammerfest project is among the most advanced turbines in the world, after an exhaustive and successful testing process in Norway. It is expected that the prototype will be developed to provide a large scale 1 MW pilot project. IBERDROLA RENOVABLES participates in this project through Inversiones Financieras PERSEO, a venture capital company of the IBERDROLA Group, in which IBERDROLA RENOVABLES has a 70% interest. The investment of Inversiones Financieras PERSEO in the project was approximately 1.6 million euros as of year-end 2008.

#### Investment in Carbon Funds.

In the United States, IBERDROLA RENEWABLES has contributed approximately 2.3 million euros to The Climate Trust on behalf of the Klamath cogeneration plant for the reduction of CO<sub>2</sub> emissions.

*"The Klamath Cogeneration Plant has been, and continues to be, a pioneer in the use of carbon offsets as a mitigation tool for new power plants. The Climate Trust receives funds from new power plants regulated by the Oregon Carbon Dioxide Standard and invests in high quality projects that reduce atmospheric carbon dioxide levels,"* said Mike Burnett, Executive Director of The Climate Trust.

In addition, to provide funding for The Climate Trust, the plant has sponsored reforestation projects in Oregon, methane recovery at coal mines in Ohio, geothermal expansion at Klamath Falls, and solar electrification in Sri Lanka to offset a portion of its emissions.

The Hammerfest marine energy project in the United Kingdom, with one of the most advanced turbines in the world, was tested in Norway with great success.