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Portugal: EDP Group case study

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About

Case study name:

The greening of industries in the EU

Country:

Portugal

Organisation Size:

500+

Sectors:

Energy

EDP develops its core business activities in the energy sector – a sector that is vital to economic and social development. The improvement in energy efficiency throughout the value chain and reducing carbon dioxide emissions are among the company's most important targets. The rapid development of the production of renewable (namely wind) energies has led to an increase in the number of direct and indirect jobs, and the diversification of skills in this green area of business. This is contrary to what has been happening in conventional energy generation where technological innovation has led to a reduction in the number of workers.

Introduction

EDP was created in 1976. Today it is a Portuguese group composed of several companies with more than 50% of its gross operating profits coming from operations abroad. Its major economic activities are the generation, distribution and trading of electricity and the distribution and trading of gas. It also covers other complementary areas such as engineering and laboratory activities.

Today, EDP Group is one of the major European operators in the energy sector, being the third largest wind farm operator worldwide through its subsidiary EDP Renováveis (EDPR). Present in 13 countries, EDP Group employed a total of 12,119 people by the end of 2011. In Portugal it had a total of 7,208 workers in 2011 of whom 56 were working for EDPR (Table 1).

Table 1: Number of workers in Portugal (excluding corporate bodies)

	2009		2010		2011	
	Men	Women	Men	Women	Men	Women
EDP Group	5,972	1,359	5,816	1,375	5,775	1,433
EDPR	43	8	54	8	58	8

In 2011 EDP was rated, for the second year running, as number one worldwide among 104 electric utilities invited by Sustainable Asset Management (SAM), accordingly to the Dow Jones Sustainability Indexes' evaluation framework which distinguishes the best sustainability performing companies after an assessment of 22 criteria. One contribution to this result was being, for the third time, first in the Human Capital Development Category (scoring 100%).

Investment in green business practices such as carbon-free renewable energies is at the core of EDP's long-term strategic vision. The development of renewable wind energy has therefore been evolving rapidly in the company. The will to contribute to the mitigation of climate change and an increased energy efficiency, namely through campaigns for energy saving addressed at domestic and industrial consumers, are distinctive factors in the Group and make a difference compared with usual practices in other similar companies.

EDP has the largest programme of hydropower development in Europe. In Portugal it is developing a re-powering programme of hydroelectric plants including nine hydroelectric plants with an overall increase in installed capacity of about 2,000 MW.

In addition, EDP is building a hydroelectric power station in Brazil of 370 MW. EDP's subsidiary in Brazil, Edp Energias do Brasil, has been part of the Corporate Sustainability Index (ISE) of the São Paulo Stock Exchange for the last five years in addition to its commitment to the principles of the UN Global Compact.

Renewable energies has been a relevant contribution to value and job creation in Portugal. According to a [study](#) from Deloitte for the Portuguese Association of Renewable Energy (APREN), this sector was responsible in 2008 for 1.3% of national gross domestic product (GDP). It is estimated that this percentage will almost double in 2015 to 2.4%.

Drivers and motivations

Climate change is a major challenge for EDP. On one hand EDP is a carbon dioxide (CO₂) generating company and on the other all the company's assets are subject to the risks generated and heightened by climate change. Improving energy efficiency and reducing CO₂ emissions are among the current main objectives for EDP. The investment in renewable energies, wind (and water) in particular, is assumed in the Group's long-term strategy as it contributes to that objective as well as to diversification of the generation portfolio and the inherent risks.

EDP Group's main drivers and motivations shaping the development of its green business practices are as follows:

- corporate image and reputation among general public;
- exploring business opportunities;
- reducing resource related risks; improving access to finance;
- current or expected regulation.

EDP greening strategy aims at:

- giving the Group worldwide leadership through diversification of growth opportunities and entry to new markets;
- being a global wind player delivering carbon-free energy;
- creating long-term value for shareholders and the society, based on sustainable growth.

EDP's investment plan is being adjusted to cope with the change in the market conditions due to the recent economic and financial crisis and in the context of the new strategic plan 2013–2015. Nevertheless the plan will maintain its focus on being a world class leader on sustainability performance and in creating the best value opportunities in the renewable energy market. In this context, the recent economic and financial crisis and the stimulus packages adopted in response crisis had no impact on the company's motivation to implement the green business practice(s).

The establishment of a strategic partnership with China Three Gorges, as a new shareholder (acquiring a 21.35% equity stake in EDP) in early 2012, should be mentioned as a relevant recent development. EDP and China Three Gorges will combine efforts to become worldwide leaders in renewable energy through joint development and ownership of selected renewable projects. This long-term partnership will enhance the visibility of the high quality of EDP's portfolio of assets and maximise value extraction from a worldwide growth platform in renewables. The process of share acquisition by China Three Gorges corresponds to one of the first steps in the vast privatisation programme Portugal agreed to within the context of the bailout by the European Union and the International Monetary Fund.

Green business practices

EDP considers the improvement of eco-efficiency in the generation and use of energy, particularly the reduction of CO₂ emissions as the most important objectives in the energy industry. It therefore follows a selective investment policy, emphasising higher return and lower risk investments, in the light of the climate change challenges both at a global and a local level. EDPR has been the main source of growth and geographical diversity of investments in the Group and confirms the change in the Group's generation profile to a portfolio less dependent on CO₂ emissions and therefore less exposed to the risks of greenhouse gas (GHG) emissions (Table 2).

Table 2: Trends in atmospheric emissions (EDP Group)

	2007	2008	2009	2010	2011
Total CO₂ emissions (kilotonnes)	23,422	19,783	20,007	14,699	16,919
Avoided CO₂, from renewable sources (kilotonnes)	10,127	10,285	13,844	18,244	18,040
CO₂ intensity (g/€)	2,127	1,424	1,640	1,037	1,119

Source: EDP Annual Report 2011

The reduction in CO₂ emissions is based mainly on the strategy of diversifying energy sources by investing heavily in power stations using more efficient and less polluting energy sources (natural gas), decommissioning oil-fired power stations and making greater use of renewable energy sources (especially wind and water). EDP therefore has been developing and consolidating green business practices as a large worldwide wind farm operator. Wind energy is the EDP's green business practice selected for this case study through its subsidiary EDPR with operations in Portugal.

The wind industry is entering a new cycle and showing a remarkable improved performance. One of EDPR's goals is to continuously improve its operational processes and to implement best practice in its business in order to stimulate growth and profit-earning capacity. In particular, EDPR aims to:

- continue to use and develop its superior wind resource capacities;
- develop greenfield project opportunities and execute the projects in its portfolio in a competent and successful manner;
- continue to create and develop long-term relations with flexible terms and conditions with suppliers of market-leading turbines at competitive prices;
- leverage its growth in operations and maintenance (O&M) experience to increase control of O&M activities with significant added value, especially during the post-manufacture warranty period.

Among the actions carried out by EDPR in Portugal, reference can be made to the Windfloat installation in Aguçadoura, northern Portugal, and the testing of a floating platform with a 2 MW turbine for the generation of offshore wind energy at depths of over 50 m.

In parallel to EDPR efforts, EDP Group has also pursued an intervention addressed at its clients and consumers in general aiming at improved energy efficiency and consequent reduction in CO₂ emissions. The Group has developed energy efficiency actions either in terms of awareness-raising and behaviour change regarding environmental preservation, or in terms of the provision of energy services. It has also developed actions to reduce GHG emissions from the supply side. For example, it participated in the CO₂ National Platform in Portugal in the launch of bases for the establishment of a platform to bring together the institutions and industries with greater CO₂ emissions so that they could share knowledge and experience which might lead to less burdensome solutions for mitigating these emissions and the corresponding consequences of the regulatory restrictions.

Overall, the green change in EDP was initiated by management and supported by the company's high level leadership. The employees responded well and adhered to this change process.

Anticipation and management of the impact of green change on quantity and quality of jobs

Impact on job quantity

The investment made by EDP in renewable energies in past years (46.5% of total operating investment, in average terms) has been accompanied by a growing job creation in this business area. The figures, for Portugal, show that, although still largely male dominated (men represent 80.1% of the workers), the relative proportion of women among the EDP Group workforce increased by 1.4 percentage points between 2009 and 2011. The high average age of EDP employees and the number of retirements in past years also contributed to this reduction in male domination. In EDPR, the number of female workers remained as eight between 2009 and 2011, while the number of male workers rose from 43 to 58.

All the workers in EDP Group are considered by the human resource (HR) managers to be working in green jobs.

EDP Group, through EDPR, was one of five companies that contributed to the creation of ENEOP (Eólicas de Portugal SA), a consortium set up to win a wind energy tender in 2005–2006. It currently employs around 1,282 workers and EDPR is the main shareholder.

In addition, EDP has been working with CME/EFACEC (40 workers), CRJ (12 workers) and EWJ/ENERCON (30 workers) in the installation and maintenance of wind farms.

EDP maintains cooperation agreements with external entities (public education organisations and training providers) for the recruitment of new personnel. This applies to the recruitment of technicians to operate the wind farms. In line with the reinforcement of specific green skills, the Group is developing the 'ON TOP EDP Recruitment Programme'. The growth and development of the business have led EDP to invest in attracting young people with potential who can contribute to the creation of value.

The aim is to position the Group in the labour market as an 'employer of first choice' and to establish a closer relationship with the school community (national and international reference institutions) through interaction and the sharing of know-how. This attractiveness policy ensures the efficient replacement of EDP's HR needs.

The ON-TOP EDP Recruitment Programme is the external embodiment of this strategy, which is implemented through educational and social initiatives, including the establishment of partnerships with universities and vocational schools, the Group's presence at job fairs, organising workshops and study visits, and encouraging internships.

The EDP Trainee Programme and EDP's participation in 'The Talent City' are the latest investment initiatives to attract and recruit talent.

Impact on job quality

Impacts on skill development

The technical skills demanded by the green business practices have been widening and further qualifying the qualitative job characteristics in EDP. The development of the wind energy business area in particular requires the recruitment of wind farm technicians who hold a vocational school certificate and are provided internally with specific training adequate to the technologies in use in the Group.

Given the change in the business process, the re-qualification of workers through vocational training and its placement in other business areas has been a matter of concern at EDP. In cases where the worker is not interested in this path or when the age does not allow, it is proposed to allow the worker to take retirement or early retirement.

A specific project, 'Valuing Experience' is addressed at workers aged over 50 years and with 30 years of working experience. This project aims at sharing of knowledge acquired in the company over the years while identifying personal motivations and what these workers would like to do during the time they will remain in the job.

According to the EDP Coordination Committee of the Workers Councils, only a small proportion of these workers who became dispensable

were placed in other units. In its view, however, most of the new green jobs created have not been fulfilled by EDP direct workers but by qualified staff provided by other companies external to the 'EDP Group'. It is mostly the management tasks that remain under the direct responsibility of EDP staff.

EDP human resources management considers two main types of skills:

- strategic skills that are common to all the workers and are related to the profile of an EDP worker – proactive work, ability to manage change and so on;
- technical skills specific to each business unit.

As to the internal training of existing workers, the Group's training department maintains the 'EDP University', which is internal to the company. The EDP University was born out of the need to manage human resources effectively and appropriately with a view to better developing the knowledge and talents of the workers. The EDP University undertakes its activities through five functional schools (schools in operation within the business areas, among which the renewables school is closely related to the wind farm operation) and two transversal schools for the transmission of transversal knowledge and the development of management skills. As a whole, the schools coordinate training, knowledge management and contribute to change management in line with the present and future needs of the Group.

Internal training is also provided according to the needs of each worker. The identification of training needs is included in the skills evaluation process, that is, self-evaluation, evaluation by the line manager and feedback meeting.

In 2011, 477,091 hours of training were conducted, of which 179,715 hours were in Portugal. This represents an increase of 13.6% compared with the previous year. Of these total hours of training, 5,595 hours were specifically devoted to environment and 825 hours to sustainable development.

Workers also have the right to study grants for themselves and their families – with a view to personal development and not specifically linked to job-related skills.

Impacts on other dimensions of job quality

In terms of labour relations, 84% of EDP's employees are covered by the collective employment agreements and 16% have individual contracts of employment. However, the trade union membership has been declining (Table 3).

Table 3: Labour relations (%)

	2008	2009	2010	2011
Collective employment agreements	88	87	87	84
Trade union membership	61	58	55	53

Source: EDP Annual Report 2011

The opening to the new green business areas and the growing need to enable immediate hiring of qualified personnel led to the resourcing of to these individual contracts of employment; 27 of these with an individual contract of employment are involved in the wind farms in Portugal.

According to the EDP Coordination Committee of the Workers Councils, the green workers hired under individual contracts have more precarious contracts, lower levels of pay, and fewer social and health benefits compared with the other workers. In its opinion, this may be linked to EDP's history, namely in how it was privatised and developed into different companies within one large group. However, the absence of a workers' council at EDPR compromises information and communication with the workers' representatives.

This view is not shared by the HR managers. Although they recognise there are some differences between the two groups of workers (that is, between those who are in the collective employment agreement regime and those who are not), they consider their average working conditions are equivalent.

EDP guarantees all its workers sickness protection systems that are complementary to the public health services available in each country. It also guarantees complementary retirement, disability and survival plans and early retirement pensions, in addition to personal accident insurance. The Group has a strict health and safety at the workplace policy, which has positive effects in a very low rate of accidents at work. There is a specific safety manual for the wind farms.

In 2011, EDPR was certified as a family responsible company. The + Conciliar Programme (a corporate programme) includes a wide range of benefits for employees which take the form of a number of initiatives aimed at improving the quality of life for employees and their families. These initiatives are structured around four main pillars:

- personal well-being;
- support to the family;
- citizenship;
- work-life balance.

Some examples are given below.

- Agreements with a number of entities (sports, cultural and hospitality) offered benefits for workers in the form of discounts and special conditions.
- A total of 156 bank accounts were opened with deposits of €500 for the new-born children of EDP workers.
- Sixteen pregnant workers benefited from 15 days' pre-birth leave.

- A total of 145 children (up to the age of 12) visited their parents' workplaces in the company. The purpose of this measure is to heighten involvement and the feeling of belonging between EDP, its workers and their families.
- The surviving spouse or children of a deceased EDP pensioner with a survivor's pension that is lower than the minimum wage is entitled to receive the 'support for pensioners'; 496 people have benefited from this support, having received a total of €85,900 in the form of supermarket vouchers.
- Holiday camps organised by the company in its own facilities were attended by 863 children or grandchildren of members of the workforce.
- The Junior Citizenship Prize, awarded by EDP to the children of workers who achieve the best results in school and show participation in civic life worthy of distinction, received 85 candidates from young students who completed the ninth school year, the 12th year or the first cycle of university or polytechnic education.
- Every worker is allowed to use four working hours per month for volunteering work.
- Between 2010–2011, 271 out of about 2,000 potential participants (that is, workers who have less than the 12th grade of education) enrolled in the New Opportunities Programme. These EDP workers also benefit from four hours per month exemption from work as a form of encouraging them to invest in training and qualification.
- EDP allows working from home in cases of family emergency, with the agreement of line management.

Another initiative launched was the 'Life Choices Today' project, which provides information sessions for workers' children and grandchildren who are completing secondary education, with working life simulation games.

The Ethics Ombudsman is also presented as a best practice, playing an essential role in the ethics process. The Ombudsman guarantees impartiality and objectivity in registering and documenting all complaints of ethical nature submitted to him. He monitors their progress and ensures that the identity of the complainants remains confidential, while entering into contact with them whenever appropriate, until the case is closed.

Another best practice identified by EDP is the worker satisfaction survey for the EDP Group. This is now conducted every two years so as to allow for better assessment of the action plans implemented on the basis of their results (improvements cannot always be assessed on an annual basis). The 2011 global satisfaction survey for Portugal produced very satisfactory results, both in terms of the participation rate (92.5 out of 100) and the global satisfaction index (81.09 out of 100). The participation rate in EDPR was lower (82.1 out of 100) but the global satisfaction index was higher (84.2 out of 100).

The contribution of employees to the development of green business practices is always possible. Besides an electronic mailbox that each worker can use to write to the CEO, there is also an internal contest in which every worker can participate, present their ideas and make their proposals. These ideas are evaluated every six months with the best three winning a prize. The workers' contribution is thus valued and encouraged by EDP Group.

Conclusions and recommendations

A company is a system in an unstable balance. A sustainability strategy is crucial in order to progress into the future and to ensure the social right of the company to be in operation. This medium-long term vision towards sustainability is a pre-condition for success.

Some key lessons learned by EDP include the following.

- Doing sustainability is first and foremost doing adaptive management.
- Dialogue, cooperation and persistence are key in this process.
- Equally important is trust – trust, based on transparency within the organisation, in the relationship with the stakeholders (namely at the local level) and in the relationship with the society as a whole.
- The short-term costs (investment in time and in money) involved in green business practices have a good return rate.
- At the end, a sustainability strategy at environmental, economic and social levels is rewarding to the company.

The anticipation and management of green change and its impact on working conditions at EDP Group is inscribed in this wider framework. In a Group where every worker is considered as working in a green job, the demands involved in this process become even more challenging. This is particularly the case regarding the mismatch between existing skills and the specific technical skills development required by the green business practices.

Some recommendations from EDP Group may formulate to energy companies willing to engage in renewable energy in general and wind energy in particular:

- quality asset base progressively showing a sustained improvement of the business key value metrics;
- management focus on efficient operations through high technical availability and low operating maintenance costs;
- workers' development through investment in training and promotion of initiatives with a focus on work–life balance;
- foster investment and growth in wind energy, supported by hydropower, in the company's production mix;
- being a pure renewable business, reducing global warming through clean energy.

Bibliography

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- [EDP website](#)
- [EDPR website](#)

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Contact us

Eurofound, Wyattville Road, Loughlinstown, Co. Dublin, D18 KP65, Ireland

Phone: (00) 353 1 2043100

E-Mail: information@eurofound.europa.eu

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