

Running head: Environmental & Social Accounting

Quality assessment of sustainability reporting in Wind-energy

Industry. The Spanish case

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Abstract

One of the most important Kyoto commitments and one of the most difficult ones to deal with is the reduction of the greenhouse gasses. Energy production and consumption are the main factors that cause these effects; this makes the energy sector the main key to reaching Kyoto objectives. Energy efficiency and energy development are the main tools that countries have to achieve them. Kyoto has also been a chance for governments to promote and develop technological innovation, to increase competitiveness and to move towards a more sustainable world.

The Spanish government, in order to comply with the Kyoto protocol, has stimulated a more efficient use of energy to promote energy diversification, to develop renewable energy sources and to guarantee power supply. Traditional energy industry, based on fossil fuels, has turned towards renewable energy. The gamble for wind-energy has paid off; Spain is the second in the world wind-energy producers' ranking, behind Germany.

This radical change also implies a change in management approach. Traditional management needs to be modified to a wider approach considering environmental and social aspects. Firms should not only take care of internal costs, but must also consider how their activity affects society and the environment in their decisions. Environmental Full Cost Accounting could be the tool for this improvement. According to this, firms are more prone to show their sustainability commitment through Social and Environmental reporting.

In this paper we make an analysis of social and environmental reporting of the energy industry, particularly wind-energy industry, which is one of the main gambles on Spanish renewable power policy at this moment. Our objective is to see the quality of the information spread by these companies, checking if it reflects environmental performance, the involvement of wind-energy producers in the process of decreasing greenhouse gasses and preserve the environment, and how stakeholders are considered by them.

We analyse environmental and social reporting practices disclosed in sustainability reports published by seven of the principal electricity producers in Spain with the aim of determining the quality and quantity of the information revealed, and if it is enough to truly reflect their environmental and social performance and also, check the effort they are doing in

order to compliance with Kyoto Protocol and sustainable development and how are they considering stakeholders in the reporting process.

[Environmental performance, Sustainability Report, Wind-energy, stakeholder]

Quality assessment of environmental reporting in wind-energy industry in Spain.

The analysis of environmental and social disclosures in the annual reports has been a relevant research matter in recent years. Academic literature focused its interest on different subjects: quantity and quality of environmental reporting (Gray *et al*, 1995).

The interest in environmental issues in accounting has increased in the European Union context due to two milestones: the European Commission Recommendation on the recognition, measurement and disclosure of environmental issues in the annual accounts and annual reports of companies and the Kyoto protocol and the regulation of GHG emission trading.

This study shows the information displayed by the one of the most sensitive and strategic sectors, electricity. The great energy internal demand and the added value by transformer industry, make energy sector one of the most important and strategic in Spain. A great improve in the energy performance and an increase in renewable energy to the energy balance is considered as necessary items to promote a sustainable strategy.

Kyoto's protocol has created a unique opportunity to promote innovation in technology, to improve competitiveness and to reduce energetic dependence in order to reach a sustainable develop model.

In order to place the main objective of this paper in context, the next section introduces a brief theoretical discussion and a review of the environmental accounting research.

To test the hypothesis underlying the paper, a content analysis of the information is carried out. We have examined: the type of environmental and social information supplied by these enterprises in their annual sustainability report, which has been elaborated following GRI guidelines.

The research method is described in detail in the third section and in the fourth section the results of the empirical analysis are presented. In the final section the main conclusions are included.

We are going to analyse 2005 sustainability reports of the main energy producers in Spain. We have focused on wind-energy producers. As they are large groups, we have chosen data from energy generation in order to homogenise information and to compare them.

Background and theoretical framework

In the middle of the XXth century theories about Social Responsibility merge, the evolution of them get the Social Response and then appear Business Ethics (Frederick, 1987) which is an important approach in Corporations and Business World. One of the main points in these theories is that one in accordance with relations between enterprises and society (Guerra, 1996); we see that most of the business ethics departments show the social responsibility of the company as the main goal.

Social responsibility theory argues in favour of the enterprise contribution to society, beyond the respect of market rules, especially in: Social contract and moral agency. Social contract refers to social willingness about enterprise existence. The second one refers to the way in which enterprises are socializing agents of its members and the necessity of adopt the values of the society where they are. The most developed model of social responsibility (Warr 1996: 141) is the one of the four categories of Carroll (1989) whom it includes: economic, legal, ethic and discretionary (or voluntary) responsibilities. The global idea is referred to the set of responsibilities that company has. No one can be excluded, but also economic performance can not be magnified over the rest of them.

A recent study (Larrinaga et al, 2002a), shown that environmental information given by enterprises (electricity sector included) was not enough for new accountability relationships and to empower stakeholders (Llena *et al*, 2007). Following the the European Union Commission Recommendation on environmental accounting, environmental information must be included in annual accounts, this has created a new standard in Spain (Llena *et al*, 2007)

The new standard of information substantially improves previous disclosures in this respect that failed due to the low level of obedience (Larrinaga *et al*, 2002b). Despite the new mandatory standard, the compliance level it still remains low (Llena *et al*, 2007; Day and Woodward, 2004), and this makes that reporting information is quite unlikely to gain the confidence of the stakeholders.

On the other hand some practices in environmental accounting are being done by enterprises, following the most well-known standard, the GRI guidelines (Gray and Milne, 2005). Probably is not the best one, but is the world-wide most accepted.

Literature shows that legitimacy theory is the main prespective in social and environmental reporting (Deegan 2002; Hooghiemstra, 2000). Some enterprises are doing an

extra effort in voluntary reporting to demonstrate their environmental and social performance, but this voluntary information sometimes is characterised by a lack of objectivity (Deegan and Rankin, 2005) showing just positive aspects of their performance.

The analysis of the sustainability reports of the main producing companies of wind-energy in Spain shows that these companies are worried about a getting a greater adaptation to the setting (complex and changing) demands: consumers associations, social shareholders, ecologists, agents, public administration, the public opinion next to mass media,... as well as an improvement in company relations with employees and the directors. The electricity producing companies of renewable energies will tend to legitimize their activity being different itself from the companies that do not bet by this strategy (Llena *et al* 2007).

Method and sample

Main hypothesis

This paper wants to answer some questions about the information published by these companies in their annual sustainability report. We want to contrast the information reported by renewable-energy companies those provide a great amount of environmental and social information, not only qualitative but also quantitative, which reflects their environmental and social performance. We also want to check their environmental performance, their compliance with Kyoto and sustainable development and the effort they are doing in reporting in this area and how these companies are running a strategy towards stakeholders and how are they consider by them in the sustainability reports.

Sample

We have analysed the seven sustainability report (2005) of the main Spanish wind-energy Companies: Acciona, Endesa, Gamesa, Gas Natural, Hidrocarbónico, Iberdrola and Union Fenosa. All these companies are quoted on the stock exchange, 6 of them listed in the IBEX35 Index. 5 of them have gas and electricity production as their main activity, other (Gamesa) produces wind-mills and the last one, Acciona is one of the largest building companies in Spain that has recently entered in the sector with strength. The decision to use these companies was made on basis of their visibility (Deegan and Gordon, 1996) because we are considering more

than 73% percent of the Spanish market. Four of them, Gas Natural, Endesa, Iberdrola and Union Fenosa are in the list of the 250 biggest energy companies in the world [1].

Our main objective is to make an analysis of social and environmental reporting of the energy Industry, particularly wind-energy Industry, which is one of the main gambles on Spanish renewable power policy at this moment. We want to check the environmental performance and the involvement the companies in the process of decreasing greenhouse gases, wastes and creating a more transparent reporting in environmental issues.

An specific research about the most used environmental and economic and environmental indicators related to environmental performance has been made according to the GRI guidelines. In the analysis we also have been doing some comparison between companies because some of them are leading renewable power and others are based on fossil and nuclear power.

For the research we have made a tool that is an index card that contains some questions with the most important environmental and social aspects. All these companies have elaborated the sustainability report following the GRI guidelines. According to GRI, the GRI guidelines is a tool to elaborate reports focusing in environmental and social details in order to display the performance of the company to derive, disseminate and encourage the use of voluntary guidelines on sustainability reporting. It is the most accepted standard in environmental reporting and also the most well-known world-wide.

For methodological reasons, we divide the analysis in economical and environmental aspects. These reports and the complexity of the reality that implies different process that is really difficult to guess the different policies and strategies developed every day.

Results and discussion

The analysis of sustainability report of the Spanish wind-energy companies implies to make a reflection exercise following all GRI indicators. Nowadays, social and environmental content in these reports boards a wide spectre of aspects related to enterprises management, human resources and communication between the company and the stakeholders.

We want to show the more relevant aspects for wind-energy companies in Spain, especially about environmental information in sustainability report. Because of this, we have made a protocol to observe the most interesting and important aspects for enterprises,

stakeholders and society reflected in the reports. The structure of the index card has grounds for quality and quantity data reporting

a) Energy aspects

All companies report with more or less precision of the energetic consumptions following GRI indicators (table 1), comparison is really difficult because they don't use the same generalised units (Unión Fenosa uses Tn of coal, fuel and uranium, Gamesa and Gas Natural use Gigajules and the rest of energy data are in GWh that is the generalised unit). So one of the main goals of the GRI, that is to make comparison easier, has not been reached in this case. To make the matters worse companies use to distinguish between domestic and international market, except for Endesa who shows the joint information for Spain and Portugal.

We have to remark that Gamesa and Iberdrola are the only ones that inform about the saving emission of CO₂, one of the reasons that can explain this behaviour is that these are these companies have made a big bet for wind-power nowadays it, as a sustainable development strategy. They show (table 1) the benefits of their activity to the stakeholders, the rest of the sample don't show any data because they are not consolidated in the sector and wind-power is a new product for them.

Data about CO₂ emissions, that are a GRI indicator of environmental performance (EN16), are not given by all the companies; Acciona does not offer information clearly on the emission, just mentions the total emission and the allowance rights.

We can also observe that nearly all companies they do not achieve Kyoto's protocol and have to buy rights of emission, Gamesa Energía is an exception because it produces by means of wind power with which does not need of emission rights. The energy bet of these electricity companies is wind-energy in all the cases; Spain is the third world producer of wind-power, indeed. Following wind-power, cogeneration-power and the combined cycles-power take place. The reason could be that companies want to reflect to the stakeholders the economical effort that the compliance with Kyoto implies.

b) *Environmental Expenditures*

Despite the new standard set up by ICAC-2002 [2] that just consider as environmental expenses “...*the amounts derived from environmental activities done or that should be done to diminish the environmental impacts of the activities...*” We have considered including the cost of Kyoto’s commitment in this item. We want to remark that the activities that these companies do, are not to reduce or repair the damage caused to the environment.

Nearly all the companies have bought emission rights market in order to achieve Kyoto, except for Gamesa. Companies put the blame on the severe drought that we are suffering in Spain since last years (table 2).

Besides this, companies argue that in absolute terms their emission have increased considerably, but their production also has done in a greater proportion so therefore their emissions have decreased in relative terms.

Gamesa offers a detailed explanation and Union Fenosa explains the items included in the items of investment and environmental expense, this information stands out from the rest of the information given. Companies are reluctant at the moment of giving concrete information about their investments and environmental expenses, except these two exceptions, that offer detailed information specified by concepts, probably due to the fact that their main activity is wind-power and hydroelectric-power that throw better results. This tendency to not reveal proper information about data investments confirms the tendency pointed out by Moneva (Moneva, 2001).

Environmental expenses appear in all the cases (table 2), this is a positive evolution respect last reports. This strategy is due to the pressure of the sector to get upper prices for electricity.

c) Provisions and environmental liabilities

The lack of information in this item is evident, despite the regulation (table 3), the environmental performance indicators show that there are three companies that do not support any information about contingencies and liabilities. Gamesa and Iberdrola give an explanation of the environmental liabilities; Hidrocantábrico simply says that it is slightly probable that some contingency would happen and if even it would take place, it has assurances to cover it. Gas Natural and Iberdrola are the only ones those say the fines they have. In most of the cases

provisions to face up environmental episodes as GRI recommends are not mentioned. The lack of information about provisions for contingencies and environmental episodes can owe to several reasons: companies do not want to take into account the environmental costs and the accomplishment of a slightly suitable analysis of risks. The use of qualitative information and the absence of economic valuations do not empower the users in an appropriate way (Moneva and Llana, 2000).

Other reason for not taking into account in a proper way this is that information revealed is not really in the interest of some the most powerful stakeholder, the shareholders, as it could have had a short-term financial impact on the company (Mobus, 2005). The lack of information, especially bad news reflected in the provisions and liabilities is probably due to the need of a good image that companies have. It is a common practice using partial notions of environmental to include large amounts in environmental investments. (Llana *et al*, 2007).

A ritual in the writing process can be guessed when these companies adduce that they have all further liabilities covered with insurances (table 3), this can suggest the information is not substantial (Criado *et al*, 2007)

d) Biodiversity

We analyse the environmental impacts of the companies' activity, this is not always an easy task (Jasch, C., 2002). We have done this following the GRI indicators and principles.

From a first view we can guess that 3 of them hardly give any information (table 4). Companies just show a listing of the activities done in order to preserve the environment. Iberdrola goes beyond the listing and also gives information about the cost and the investment done to restore and protect the ecosystem and species. Gamesa gives very detailed information about the impacts and an evaluation by activities.

The aim of not leaving the environment worse than it is or at least equal than it is now (Fernández and Larrinaga, 2006) , should be an objective for all companies and a relevant social and environmental information is necessary as GRI indicates; nevertheless, it seems that this is not one of the main target of the mentioned companies.

In table 4 we can see some biodiversity indicators those have no enough information (EN23, EN24, EN26, EN28 and EN29) probably because companies consider them as a non important issue to spend time and effort in.

The lack of attention to biodiversity suggests that this is a non relevant issue. All of them admit that their activity create impacts on biodiversity but just a few have analysed them, just Gamesa and Iberdrola. On the other hand when they have the opportunity to give some information about the targets and achievement in restoring ecosystem, the number of enterprises is four. Here we have a new evidence of biased information to a positive point of view, this theme suggests one question, how do they restore the environment if they haven't analysed the impacts before?

e) Environmental management awards

There are some enterprises that have been “working hard” in the process to consolidate their corporate image, having reached the recognition from institutions for their effort to reach a sustainable development. Dow Jones Sustainability Index, FTSE4Good. These indexes are design to measure the environmental performance of companies, and to provide a “clean alternative” to those investors that are looking for an “ethical investment”.

We can clearly guess a different tendency. There are just two companies without any environmental management award; on the other hand the companies that have any award give clear information about different awards, prizes and environmental indexes where they are quoting (table 5). DowJones Sustainability world Index, Dow Jones Stoxx and FTSE4Good stand out from all these awards and indexes due to the environmental and social corporate responsibility exigencies that are necessary to be quoted in them. Iberdrola even mentions that it has sent some information to different indexes FTSE4EGood, Innovest, Core Ratings Pacific Sustainability Index.

The work that these companies have done to show their performance to further investors is great; unfortunately the effort is not the same to show it to other stakeholders or to show negative aspects (Deegan and Rankin, 1996; Gray, 2006; Criado *et al*, 2007).

f) Environmental verification

One of the main things to evaluate the credibility of the report is how reliable the information given is (Gray, 2005). Trust is related to two factors: stakeholder engagement in the information and need determination process and the role that an external expert plays. These factors guarantee that information is accurate and proper (Moneva, 2006). Due to the poor stakeholder engagement in the process (Larrinaga *et al*, 2002) the trust is based on the external expert's opinion.

An external opinion is really important because it makes reporting more reliable. A positive opinion increases the corporate image to the stakeholders, because data collected are not questioned (Moneva, 2006).

Nearly all the companies have an environmental management system, but not all of them have the entire 100% of the energy produced or energy plants certified with the ISO 14001 (table 6).

The report of external verification is a very interesting tool, because contributes to boost company's credibility to the agents and stakeholders who interact with the company, and it also adds value to the same ones and, in some occasions, can contribute to improve the quality of its contents and the used methods for its production. Nearly all of them are under a verification process, this implies a review of the report. The aim is to make data and process reliable to the stakeholders and to corporate government (Moneva, 2006).

Just two of them have a clear opinion, (table 6) Gas Natural "*in accordance to GRI*", and Iberdrola has an AENOR validation. Gamesa just can conclude that data are correct but there is no a clear opinion. Verification reports don't give an opinion because of the limit scope; they just say : "*... trustworthy data and information supported by internal and external documents, and data offered do not have main errors*". The cases of Endesa and Acciona are the same. External verification not always can conclude with an opinion because of the complexity of the process. The utility of this tool is quite low because it doesn't analyse stakeholders engagement in the process (Moneva, 2006). Auditor point out to Endesa the need of progressing in the dialogue with the stakeholders and the need to fortify the systems of sustainable reporting.

The main problem of the data spread out by these companies is the lower relevance of them, instead of how reliable they are.

g) Stakeholders

According to the GRI, companies should to identify stakeholders and describe how have they been answering to stakeholder expectations and interest.

All these companies are following the general tendency in the electricity sector, apparently focused on the stakeholders, but that it doesn't culminate because of the stakeholders' lower engagement in the process (Larrinaga *et al*, 2002). Enterprises are looking for a reputation and image with a reporting according to the regulation. There is a clear relationship between a stakeholder's management and an efficient financial management (Greenley y Foxall, 1997; Moneva *et al*, 2007).

Looking at different stakeholder undertaken by these companies (table 7), the groups that appear are the classic ones, those more evident and recognized by all the analyzed companies: shareholders and investors, clients, suppliers and personnel. Companies also recognized others like public administration or civil organizations, but they just mention them without any explanation. Just two enterprises, Iberdorla and y Gas Natural give proper information about dialogue with administration. Environment is forgotten by most of the companies and it is only considered by three of them. It seems as if companies use social and environmental information as a tool to legitimate their activity more than to inform to society. (Patten, 2005 in Fernández y Larrinaga, 2005). Public administration is considered by most of them, that's obvious because this kind or industry have to support a lot of administrative and bureaucratic information. The mere consideration of stakeholders doesn't imply corporate responsibility by the companies, it is necessary to guess which ones are the more relevant and the level reached considering the decision making process of the company (Moneva *et al*, 2007). Reporting is the main key for the companies to legitimate their activity (Bebbington and Gray, 2001).

If we focus on the communication channels and dialogue with stakeholders, the common feature is the low cost of the mass media using as a main tool the websites and pieces of news. All the companies have a mailbox to attend complains and suggestions. Iberdrola and Gas Natural also give some informative speeches to the different stakeholders.

The importance of the companies' attitude in an important sector as the electricity has influenced the amount of information that these ones have been reporting (Moneva and Llana 1996). These companies are trying to legitimate their activity to society with large amount of reporting on their activity (Moneva *et al*, 2001).

There are quite great differences in the reporting of these companies, considering quantity and quality, and the first conclusion we can guess is that traditional companies with poor environmental data are reporting in a lower level than companies that have invested more in renewable sources with better environmental results. All these companies also provide a large amount of information to show a positive image reflecting their environmental performance to the stakeholders. They also use this information to legitimate themselves (Patten 2005; Fernandez and Larrinaga 2005). Despite the amount of information in the report, the quality is not good enough to make comparisons and there is a complete lack of neutrality and objectivity, trying to show a good image, especially for the investors.

We have noticed that environmental compromise of these enterprises is really low and it is linked to compliance with regulation provided that there is a low interest of the financial markets in this type of managerial behaviour. Companies have realised that their activities are not sustainable (Bebbington and Gray, 2001). Voluntary reporting about their environmental performance doesn't give them credibility. More regulation is needed in the sector to see a proper performance (Gray, 2005).

Worldwide, it is observed as Kyoto's protocol influences directly to reduce the emission of CO₂ on the part of the mentioned companies due to the major visibility to the stakeholders and also due to the major experience of these companies in these topics.

GRI indicators have supposed a revolution in business reporting and electricity industry is not an exception, but there is a lot of work to do to get sustainability reporting (Gray, 2005). Despite of the amount of information referred to the above mentioned indicators and a high degree of compliance by these companies, it is necessary to state that a great amount of complex ethical dilemmas arise and businessmen, executives and workers must face them up. Data and information show that Wind-energy producers are engaged to the main worldwide sustainability standards.

There is a lot of work to do both in reporting, in increasing the stakeholders' engagement in the process and in the regulation. Anyway, it is necessary to conclude that the mentioned companies are in a transformation process gambling for sustainability though in their first stadiums of fulfilment.

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Appendices

[Insert appendices here]

Footnotes

[1] The Economist 27-2-06

[2] ICAC, Institute of Account Accountants and Auditors.

Table 1

ENERGY DATA

ENERGY DATA																
	energy consumption	avoided emissions Tn CO2	avoided emissions Tn NOx	avoided emissions Tn SOx	Wastes Tn	Tn CO2 emissions	CO2 g/KWh emissions	Tn SOx emissions	SOx g/KWh emissions	Tn NOx emissions	NOx g/KWh emission	Total emissions	Allowance rights	Compliance with Kyoto Tn CO2	Production GWh/year	Energy Gamble
Acciona Energía	39.126.496 not shown units	-	-	-	179	only emiss. with allowance rights	-	-	-	-	-	399.744	440.936	-399.747	5.105	Wind Energy Solar
Endesa Spain and Portugal	5.204	-	-	-	-	-	695	-	6,19	-	1,89	-	42.990.000	-23.727.273	94.807	Wind Energy, Cogeneration, Combine cycle
Gamesa Energía	33.661 GJ 9,3 GWh	12.037.500	141.023	77.948	19	992,89	-	no data for G Energia	-	no data for G Energia	-	-	-	-	20.513	Wind energy
Gas Natural	50.612.674 GJ 14.059 GWh	-	-	-	2.272	3.007.170	-	-	-	1.161,25	-	-	-	-	10.466	Wind Energy, Cogeneration, Combine cycle
Hidrocantábrico energía	785 GWh	-	-	-	879	12.918.370	-	32.890	3,87	45.740	2,77	12.997.000	8.946.000	-4.051.000	14.240	Wind Energy Combine cycle
Iberdrola	6.147	9.500.000	-	-	9.543	15.808.937	241	52.059	0,8	45.567	0,7	15.906.563	6.109.091	-7.659.091	56.522	Wind Energy, Cogeneration, Combine cycle
Unión Fenosa Generación	7.820 Tn coal 220332 Tn fuel 1398 Ktn Gas 4842 Kg Uranium	-	-	-	1.717	14.133.000	520	145.500	7,25	56.700	2,83	14.335.200	13.114.000	-3.373.000	24.669	Wind Energy Hydroelectric Combine cycle

Table 2

ENVIRONMENTAL EXPENSES

ENVIRONMENTAL EXPENSES						
	Expenditure Environment/wo rker	training hours Environment/wor ker	Environment expenditures x1.000 €	Environment investments x1.000 €	Compliance with Kyoto x1.000 €	Remarks
Acciona Energía	-	-	514.000	-	8.794	No data about environmental investment of the enterprise
Endesa	-	-	63.000	157.000	522.000	Not comparable data. There is no mention about the components that are included in environmental investments and expenditures. It holds that electricity in Iberia market has increased in 118% in 1990-05 and emissions has only increased in 69%; this implies a decrease in emissions in 27.7%
Gamesa Energía	511	6,8	3.441	145	-	Environmental expenditures with lots of details and classified by concept: prevention, decommissioning, environmental study impacts
Gas Natural	-	-	32.160	-	-	Lots of tables but not as clear as it was expected
Hidrocantábrico	-	-	1.800	19.000	28.500	Informs but not in the sustainability reporting, it refers to Annual Accounts
Iberdrola	-	7,5	59.057	85.909	168.500	Expenditure of allowance rights emssions caused by drought. 60% of gross production is exempt from allowance rights
Unión Fenosa Generación	-	3	15.561	19.543	72.241	Environmental expenditures = cost of every environmental activity in order to prevent emissions, and environmental regeneration and auditing. Investment =assets that can be used in a permanent way in order to reduce the the environmental impact : better energy performance, less pollution Increase in emissions (8,1%) caused by drought

Table 3

PROVISIONS AND ENVIRONMENTAL LIABILITIES

PROVISION AND ENVIRONMENTAL LIABILITIES				
	Fines	Environmental liabilities	Provisions and environmental contingencies	Remarks
Acciona Energía	Non Available	Non Available	Non Available	
Endesa (Esp y Portugal)	Non Available	Non Available	Non Available	
Gamesa Energía	They are not determined properly	It has only one environmental liability in a windmill-farm in Italy because of the infrastructure, this has been repaired. Fines for burning wastes and gathering material without information.	Non Available	
Gas Natural	1.752 €	It only says that it has had 60 environmental liabilities and no gives any more information.	Non Available	
Hidrocantábrico Energía	Non Available	The company considers that there is no point in having provisions for environmental liabilities because it has an environmental management system and some assurance for Civil responsibility.	Provisions that are necessary to face up responsibilities. The amount is 29,2 M€. All possible contingencies are covered by insurances	There is no specific methods for developing cost systems according to the law and that can be applied to social and environmental aspects. Entity will value good practices in similar enterprises of this area.
Iberdrola	8.012 €	37 legal procedures related with electricity delivery in Spain. In Spain it has 3 fires caused by electric lines, 2 for a non authorised felling and 1 for electromagnetic pollution and noises in a Electric-station.	It is considered that all posible contingencies are covered by insurances and Civil Responsibility and the provisions that it has.	
Unión Fenosa Generación	Non Available	Non Available	Non Available	

Table 4

BIODIVERSITY

BIODIVERSITY	EN6 Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	EN7 Analysis of main impacts on biodiversity	EN23 Land destined to production and extraction activities	EN24 Percentage of impermeable land related to the size of land acquired	EN25 Description of significant impacts of activities, ... on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	EN26 Changes in natural habitats caused by enterprises activities	EN27 Strategies, current actions, and future plans for managing impacts on biodiversity.	EN28 Number of IUCN Red List species and national conservation list species with habitats in areas affected by	EN29 Units of enterprises that operate or will operate in sensitive areas or surroundings	Remarks
Acciona	Not Available	Not Available	Not Available	Not Available	It only says acts in art restoration	It only shows some impacts of their activities in a short way.	Listing of good environmental practices in several areas.	Not Available	Not Available	
Endesa	Not Available	Impacts are not mentioned	Not Available	Not Available	Not Available	Not Available	Restoration actions in coal mines and other natural areas. All the information is given in a vague way.	Not Available		Vague information about different aspects: hydrology, mines, thermal plants.
Gamesa	There is not an specific place. It says that is crop land, natural and reforestation	Listing of environmental impacts and an evaluation by activity	Occupied land classified in: natural, reforest, crop or protected land.		It in not said if it is a protected or sensitive area or not.		Environmental Impacts Studies. All corrective measures taken by enterprise by each impact are displayed			Very clear information and quite easy to read
Gas Natural	Not applied	Not applied	Not applied	Not applied	Not Applied. The enterprise doesn't act and is not planned in sensitive areas	Not applied	Not applied. It shows the landscape restored every year (620 m2) and the number of Environmental Impact Studies. Only shows the	Not applied	Not Applied. The enterprise doesn't act and is not planned in sensitive areas	
Hidrocarbónico	Only shows the flood land in natural spaces	Impacts produced in generation, transport, deliver and energy consumption								
Iberdrola	Inform about the presence of the enterprise in protected areas	Only says that energy generation produces impacts that have to decrease by correcting them with more efficient technology. It refers to the website			Doesn't mention impacts, just refers to www.iberdrola.com Medio Ambiente		Inform clearly about the number of actions and the cost of the investments			It is working hard in a document to show the environmental policy and the biodiversity management system
Unión Fenosa	Land occupied by energy plants, electric lines in towns and protected areas	Only information of the environmental indicators used to measure pollution without dates	m2 occupied by energy plants and electric lines	Changes in habitats are not clearly specified. Just some acts		Some impacts are mentioned but in a vague way	Inform about different Environmental Impact Studies, but not mention actions made			

Table 5

ENVIRONMENTAL MANAGEMENT AWARDS AND PRIZES

ENVIRONMENTAL MANAGEMENT AWARDS									
Acciona	Principe Felipe Award for Business Excellence in Renewable Energy and Energy efficiency	European Environmental Award							
Endesa	DJSI STOXX	KLD Global Climate 100 Index	Energy Wisdom Programme	Best Class in Storebrand	Advanced Sustainability indexes Eurozone 2005				
Gamesa	Green Power Award for contributions to Wind Power Development	FTS4EGood	KLD Global Climate 100 Index	Indice global 100	In Accordance GRI				
Gas Natural	Dow Jones Sustainability World Index DSJI World	FTS4EGood	DJSI STOXX	Merco 2005	EIKON 2005	Finalist in Sustainable Enterprise	Finalist in AECA Best Sustainability Reporting Award	Social Corporate Responsibility 2005	
Hidrocantábrico	-	-	-	-	-	-	-	-	-
Iberdrola	Dow Jones Sustainability World Index DSJI World	Energy Wisdom Programme	DJSI STOXX	Pacific Sustainability Index	Merco 2005	Best Social Corporate Responsibility Enterprise in IBEX35	Carbon Disclosure Project	Energy Investor of the year Platts global energy Awards	Electric Enterprise of the year Platts global energy Awards
Unión Fenosa	-	-	-	-	-	-	-	-	-

Table 6

VERIFICATION OF THE SUSTAINABILITY REPORT AND ENVIRONMENTAL MANAGEMENT SYSTEM

VERIFICATION OF THE SUSTAINABILITY REPORT							
	Environmental Management System	Verification report	Scope	Conclusion	Criteria review	Remarks	
Acciona	ISO 14001: 58% of the activity	DELOITTE	Limited without opinion	It has not been possible to implant all GRI criteria, being the intention to implement them. Reviewed indicators are detailed and those that do not cover all the aspects indicated in GRI and those are identified that single include data of certain divisions. Any other cause is not shown that makes us think that the reviewed aspects described contain significant errors.	ISAE 3000 for non financial information	Report prepared exclusively in interest of the company	
Endesa	ISO 14001: 87% of the energy produced	DELOITTE	Limited without opinion	They do not provide opinion, Recommends to progress in the dialogue with the stakeholders and to fortify the systems of sustainability reporting. Data do not contain significant errors	ISAE 3000 non financial info. AA1000AS financial info.	Report prepared exclusively in interest of the company	
Gamesa	ISO 14001: 76,5% of energy plants	KPMG	Trustworthy data; Information supported by internal and external documents	There are no deviations neither significant omissions in the reviewed information nor are evidence of which the process of obtaining of information are erroneous	ISAE 3000 for non financial information	-	
Gas Natural	ISO 14001: 11 enterprises	PRICEWATER HOUSE COOPERS	Data collection process and controls are adequated and the indicators have been prepared according to the Social Corporate Responsibility Report. Trustworthy and consistent indicators according to GRI	Procedures and controls established for preparation of the information provide a reasonable base. The indicators have been prepared according to Social Corporate Responsibility principles, there are no deviations in the indicators; IN ACCORDANCE with GRI principles.	ISAE 3000 for non financial information	-	
Hidrocarbónico	-	KPMG	Trustworthy data; Information supported by internal documents or external	There are no deviations neither significant omissions in the reviewed information nor we have observed that other circumstances that they indicate to us that the social, environmental information and of health and security including in the memory are not reflected in an appropriate way in it.	ISAE 3000 for non financial information	-	
Iberdrola	ISO 14001: 24 certifications	AENOR	According to GRI	Validation of the report of sustainability by AENOR according to the criteria established in the GRI	-	-	
Unión Fenosa	ISO 14001: 67% of the energy produced	-	-	-	-	-	

Table 7

STAKEHOLDERS

STAKEHOLDERS CONSIDERED BY COMPANIES								Remarks
Acciona	shareholder and investors	clients	suppliers	workers / employee	society	-	-	Some stakeholders are mention but there is no explanation about communication channels and it focuses on specific measures. Public administration is not mention anywhere.
Endesa	shareholder and investors	clients	suppliers	workers / employee	neighbours, mass media, Civil organizations	-	public administration	Some stakeholders are mentioned, but administration is not considered when it talks about dialog with stakeholders, just clients, shareholders and suppliers are considered
Gamesa	shareholder and investors	clients	suppliers	workers / employee	communities	-	public administration	Administration is mentioned in a grafic, but there are no explanations as they are with other stakeholders. List with 63 stakeholders and objective, there is no public administration nor environmental organizations
Gas Natural	shareholder and investors	clients	suppliers	workers / employee	society	environment	-	It mentions the different communication and dialogue routes with different stakeholders
Hidrocarbónico	shareholder	clients	suppliers	workers / employee	society	environment	public administration	It mentions the different communication and dialogue routes with different stakeholders. It only says that it has a fluent communication with administration, but it is not so descriptive as it is with other stakeholders
Iberdrola	shareholder, investors and analysts	users	suppliers	workers / employee	Society, mass media, local communities, universities and educative centers, worker' unions	environment	public administration	It mentions the different communication and dialogue routes with different stakeholders. It also exposes the stakeholders interest in the enterprise's environmental management
Unión Fenosa	shareholder and investors	clients	suppliers	workers / employee	social organizations and community	-	public administration	It mentions the different communication and dialogue routes with different stakeholders

Figure Captions

[Insert Figure Legends here]

1 [Insert Figures here]