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Analysis of Social and Environmental Reporting in wind-energy industry. The Spanish case

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Objective, theoretical framework and hypothesis



- To explore the involvement of wind energy industry in the reduction of GHG emissions and the problem of climate change
- Stakeholder vs legitimacy theory
- H1: Wind-energy industry will produce high quality environmental financial and non-financial reporting
- H2: Wind-energy industry will produce high quality information as a differentiation strategy



Methodology

- Sample: 7 main Spanish wind energy companies (6 of the IBEX 35)
- Content analysis: Annual reports and separate Sustainability/environmental reports 2005
 - Energy aspects
 - Environmental expenses
 - Environmental provisions and liabilities
 - Biodiversity
 - Environmental awards
 - Environmental audit: verification, certification,...
 - Social dimension



Very confusing information
Non comparable data

Energy Gamble of
Main Spanish
Electricity Companies

ENERGY DATA																
	energy consumption	avoided emissions Tn CO2	avoided emissions Tn NOx	avoided emissions Tn SOx	Wastes Tn	Tn CO2 emissions	CO2 g/KWh emission	Tn SOx emissions	SOx g/KWh emission	Tn NOx emissions	NOx g/KWh emissio	Total emissions	Allowance rights	Compliance with Kyoto Tn CO2	Product on GWh/year	Energy Gamble
Acciona Energía	39.126.496 not shown units	don't inform	don't inform	don't inform	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 cicle
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 cicle
Hidrocanábri co energía	785 GWh	don't inform	don't inform	don't inform	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 cicle
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 cicle
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 cicle

European average 377 g/KWh
Spanish average 457 g/KWh

Very little environmental investment

Hardly compliance with kyoto



	Expenditure Environment/ worker	training hours Environment/ worker	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
Gamesa Energía	511	391	3.441	-	-	Environmental expenditures with lots of details and classified by concept
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
Iberdrola	-	-	59.057	85.909	168.500	Expenditure of allowance rights emissions 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. Environmental Investment = assets that can be used



No information

PROVISION AND ENVIRONMENTAL LIABILITIES

	Provisions and environmental			
	Total Fines	Environmental liabilities	contingencies	Remarks
Acciona Energía	N.A.	N.A.	N.A.	
Endesa (Spain and Portugal)	N.A.	N.A.	N.A.	
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.	N.A.	
Gas Natural	1.752 €	It only says that it has had 60 environmental liabilities and no gives any more information.	N.A.	
Hidrocantábrico Energía	N.A.	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€	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 possible contingencies are covered by insurances and Civil Responsibility and the provisions that it has.	
Unión Fenosa Generación	N.A.	N.A.	N.A.	

No information



	EN6	EN7	EN23	EN24	EN25	EN26	EN27	EN28	EN29
BIODIVERSITY EN6	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value	Analysis of main impacts on biodiversity	Land destined to production and extraction activities	Percentage of impermeable land related to the size of land acquired	Description of significant impacts of activities, ...on biodiversity in protected areas and areas of high biodiversity value	Changes in natural habitats caused by enterprises activities	Strategies, current actions, and future plans for managing impacts on biodiversity.	Number of IUCN Red List species and national conservation list species with habitats in	Units of enterprises that operate or will operate in sensitive areas or surroundings
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	Listing of good environmental practices in	Not Available	Not Available
Endesa	Not Available	Impacts are not mentioned	Not Available	Not Available	Not Available	Not Available	Ristoration auctions in coal mines and other natural areas. Vague information	Not Available	
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		It is not said if it is a protected or sensitive area or not.		Environmental Studies. Corrective measures taken by enterprise by		
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. Shows the landscape restored every year (620 m2) and the number of Environmental	Not applied	Not Applied. The enterprise doesn't act and is not planned in sensitive areas
Hidrocantábrico	Only shows the flood land in natural spaces	Impacts produced in generation, transport, deliver and energy							
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			Doesn't mention impacts, just refers to www.iberdrola.com Medio Ambiente		Informs clearly about the number of actions and the cost of the investments		
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		7

Information about impacts

No information

No information



Limited Scope

In Accordance

VERIFICATION OF THE SUSTAINABILITY REPORT

	Environmental Management	Informe de verificación	Scope	Conclusion	Criteria review
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 divisio	ISAE 3000 for non financial information
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.
Gamesa	ISO 14001: 76,5% of energy plants	KPMG	Trustworthy data; Information supported by internal documents or external	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	PRICEWATERHOUSE 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; Report follows GRI pri	ISAE 3000 for non financial information
Hidrocantábrico	-	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	ISAE 3000 for non financial information
Iberdrola	ISO 14001: 24 certifications	AENOR	Accoding to GRI	Validation of the report of sustainability according to the criteria established in the GRI	-
Unión Fenosa	ISO 14001: 67% of the energy produced	-	-	-	-

In accordance

Classic Stakeholders

It only appears but, no one considers it really



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 focus 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.
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

Just mention Public administration, but they not consider it properly



SOCIAL DIMENSION

	Actions	Prizes, achieves and awards
Acciona	Qualitative and quantitative methodology.	Several prizes for its business performances in publicity, security, architecture, construction
Endesa	Environmental and Sustainable development strategic plan. Special health and Security plan for Suppliers and Contractors	Adhered to the Global Compact. Code adapted to the OCDE's one
Gamesa	Strategic Plan of Labour Risk 2005-2007, and 2006-2008	
Gas Natural	Foundation focused in environment. Commitments with clients (Autoevaluation according to International Excellence Models, Internal client satisfaction)	
Hidrocantábrico	Foundation to promote environment, culture, sports and training. Permanent Labour life Observatory	Preventive Management based on OHSAS18001:1999, Accountancy adapted to Sarbanes-Oxley law
Iberdrola	Important sums of money in I+D+i. Lots of information to mass media	
Unión Fenosa	Management improvement Plan that has created some new slight and dynamic structures closer to the external and internal client have appeared. Increase in EBITDA/employee 38%.	2nd, of Best Social Action Companies

Results



Financial information

Environmental expenses and investments, and emissions trading expenses are well developed in electricity sector.

Arguments:

- Experience in this sector.
- Pay attention to stakeholders (polluting industry?)
- Emissions trading scheme impacts directly.

Environmental provisions: they hardly have been developed by these companies

Arguments:

- Not to internalize environmental costs
- They have a non adequate risks analysis.

Results



Non financial information

- They have considered the classic stakeholder (shareholders, clients, suppliers, and workers), there are only three that consider Environmental as a stakeholder.
- Biodiversity is not detailed and worked in a proper way. EN23, 24, 26, 28 y 29
- They consider the analysis of the impacts in biodiversity EN7
- Some of them have Environmental Prizes and Awards, especially DJSWI (and Stoxx) and FTSE4GOOD.
- Verification of sustainability reports is quite interesting because it makes it trustworthy, but the scope is quite limited and there is no opinion in several cases
- They give some information about dialogue with stakeholders.
- These companies are an example of how ethic structures and social responsibility are being constructed in business.

Conclusions



- There is no a real gamble on renewable energy. It is just a classic market mechanism that consists in new line products
- The response given to improve the quality of labour life of their members and social dimension is more a strategy of image than a real commitment.
- Environmental compliance is really poor and it is linked to regulation.
- Environmental reporting is not quite better than the one offered by other companies
- These companies are in a transformation process gambling for sustainability, but they are in the first stadiums of fulfilment.



**Thank you for
your attention!**