



Comisión  
Nacional  
de Energía

**REPORT ON THE GUARANTEE OF  
ORIGIN AND LABELLING SYSTEM  
FOR ELECTRICITY  
2007 AND 2008**

2 July 2009

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# **REPORT ON THE GUARANTEE OF ORIGIN AND LABELLING SYSTEM FOR ELECTRICITY 2007 AND 2008**

According to the provisions set forth in Additional Provision 11(3)(1) of Law No 34/1998 of 7 October 1998 on the hydrocarbons sector, and in Royal Decree No 1339/1999 of 31 July 1999 adopting the Regulation of the National Energy Commission, the Board of Directors of the National Energy Commission, at the meeting held on 2 July 2009, agreed to issue the following

## **REPORT**

### **1 OBJECTIVE**

The objective of this report is to present the Ministry of Industry, Tourism and Commerce with a specification of the development of the Guarantee of Origin and Labelling System for Electricity, in compliance with the provisions of Article 6.5 of Order ITC/1522/2007 of 24 May 2007 regulating the guarantee of origin for electricity from renewable energy sources and high-efficiency cogeneration and requiring the drafting of an annual report since the system start-up on 1 December 2007. During this time, the electricity produced in the years 2007 and 2008 was guaranteed.

The objective of this report is to comply with the provisions laid down in Article 15(2) of the Order requiring that a report be submitted to the Ministry every two years regarding the degree of success in meeting the national indicative targets for the electricity produced from renewable energy sources.

### **2 LEGISLATION**

- Directive 2001/77/EC of the European Parliament and the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market.
- Directive 2004/8/EC of the European Parliament and the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC.

- Directive 2009/28/EC of the European Parliament and the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC .
- Royal Decree No 616/2007 of 11 May 2007 on the promotion of cogeneration.
- Royal Decree No 661/2007 of 25 May 2007 on regulating electrical energy production under a special scheme.
- Ministerial Order ITC/1522/2007 of 24 May 2007 regulating the guarantee of origin from renewable energy sources and high-efficiency cogeneration.
- Article 110a of Royal Decree No 1955/2000 of 1 December 2000 regulating the transportation, distribution, commerce, supply and authorisation procedure for power plants in accordance with the drafting of Royal Decree No 616/2007 of 11 May 2007 on the promotion of cogeneration.
- Circular letter No 2/2007 of 29 November 2007 of the National Energy Commission regulating the start-up and management of the guarantee of origin system from renewable energy sources and high-efficiency cogeneration.
- Circular letter No 1/2008 of 7 February 2008 of the National Energy Commission informing consumers of the origin of the electricity consumed and its impact on the environment.

### **3 BACKGROUND**

#### ***3.1 Supervision of the Special Rates System by the NEC***

In Spain, electricity producers operating under the special rates system (using the cogeneration of renewable sources and residues from power equipment up to 50 MW) can sell their surplus energy or production at a regulated rate when they transfer the energy to the power company, or on its own market, either directly or through a representative. Regardless of the option selected, up until 30 June 2009, the power company is responsible for verifying the invoicing and attributing to the special rates system the amounts for the rates, premiums and supplements. Commencing on 1 July 2009, the NEC itself will determine the equivalent premiums, the premiums, the incentives and complements. In both cases, these amounts must be submitted to the settlement processes for regulated businesses and costs in accordance with Royal Decree 2017/1997 of 26 December 1997.

Toward this end, power companies send the NEC a monthly invoicing report for the producers working under the special rates system that are connected to its grids, in compliance with Circular 3/1998 pertaining to obtaining information to carry out the settlement task and the Decision of 13 December 2001 of the Energy and Mining Policies Department establishing a new information system for the electricity sector (SINCRO).

NEC conducts the supervision and oversight of the regulated costs that comprise the rates, premiums and complements. Additionally, it prepares the reports, regulatory proposals for improvement and monthly statistics published on its web page. Furthermore, since July 2007 and in accordance with article 21 of Royal Decree 661/2007, it publishes the total permanently registered installed power that it invoices on a monthly basis, for the purpose of determining the extent of the progress in reaching the indicative targets set by the Development Plan for Renewable Energies.

Moreover, NEC periodically inspects the invoicing of energy produced under the special rates system based on a selection of power plants listed in the Inspection Scheme recommended to the Energy and Mining Policies Department generally based on the result of the inspections incorporated into the follow-up and control of invoices.

### **3.2 The Guarantee of Origin and Labelling System for Electricity**

The Guarantee of Origin and Labelling for Electricity System started by the NEC on 1 December 2007 endeavours to inform consumers on the origin of the energy consumed and the associated environmental impact. The initiative is an adaptation of European regulations. Article 5 of Directive 2001/77/EC on the promotion of electricity from renewable energy sources sets forth the need to guarantee the origin of electricity. The same is true for Directive 2004/8/EC on high-efficiency cogeneration. Finally, Directive 2003/54/EC on the common regulations for the internal energy market requires energy power companies to indicate in their invoices, and together with their promotional information, a breakdown of the contribution that each primary energy source had in the energy sold in the previous year, as well as information regarding the environmental impact, at least in relation to specific CO<sub>2</sub> emissions (g/kWh) and generation of highly active radioactive residue (mg/kWh).

With the entry into force of Ministerial Order ITC/1522/2007, and article 110a of Royal Decree 1955/2000, in accordance with the drafting of Royal Decree 616 of 11 May

2007, these Directives are incorporated into Spanish law. Law No 17 of 4 July 2007 amended Law No 54/1997 to assimilate these precepts, among others.

By means of the Guarantee of Origin and Labelling System for Electricity, it is possible to guarantee the origin of electrical energy produced from renewable energy sources or through high efficiency systems, determine the overall mix of primary energies that are used annually to produce electricity, and know the combination of energy traded during the previous year by each company, as well as its associated environmental impacts (electricity labelling).

It is clear that the electrical power that goes into the system, whether it comes from thermal carbon or a wind farm, flows through the grid without the possibility of differentiation. And various sources equally power our electrical appliances and light bulbs. If we stopped to analyse each of the kilowatt hours that travel over the wires we would see that in 2008, 16% of this electricity was generated from thermal carbons, 30% from combined gas cycles, 3% from fuel/gas plants, 19% from nuclear energy, 8% from cogeneration, and 22% from renewable energy plants and high-efficiency cogeneration. These percentages reflect the mix of production used by the entire electrical system to cover the country's annual demand for electricity.

However, it is possible that an electricity supplier wishes to offer its customers cleaner electricity, with a higher percentage originating from renewable energy or high-efficiency cogeneration on an annual basis, even up to 100% from renewable sources. In order to do this, the power company, regardless of how the electrical energy acquisition is contracted (on the organised wholesale market or through a bilateral contract) has the possibility of participating in the Guarantee of Origin and Labelling System for Electricity and thus obtain guarantees of origin to improve the supply mix in terms of the production mix. With the energy it contracts on the market, together with the guarantees that it obtains on the referenced System, the power company can make "green energy" offers and/or provide greater efficiency to its consumers.

Additionally, guarantees of origin in the hands of a power company can ultimately be used by consumers, who will have the possibility of proving to third parties that their annual consumption comes from renewable energy sources and/or high-efficiency cogeneration.

Thus, even though up until now only generic kWh existed on the electricity market, part of these can be transformed into green kilowatt hours (renewable) and/or efficient hours (cogeneration).

Unquestionably, Ministerial Order ITC/1522/2007 establishes a mechanism to make account entries on the NEC web page (similar to a public register), where, voluntarily, electricity producers which use renewable energy sources or high-efficiency cogeneration (including hydraulic and ordinary system cogenerations) can voluntarily request registration of the guarantees of origin applicable to them. The NEC will verify the information available in the permits, special rate system invoices and electrical computations beforehand in order to ensure that the descriptions are authentic.

Producers can request that the guarantee certificates in their possession be transferred to power companies, so that the latter, once the guarantees are transferred to them, can settle them in the supply to their consumers, with a prior verification of the electrical consumption measurements. The entire system is subject to the final results of the NEC inspections.

As a result of the Guarantee of Origin and Labelling System for Electricity , the NEC publishes an electricity label each year for each power company, similar to the energy labels affixed to home appliances. These labels are easy to interpret, and indicate the mix of energy sources that produced the energy provided by each power company during the previous year and its associated environmental impact.

Essentially, this label also indicates the supply mix, the CO<sub>2</sub> emissions, and the production of highly active residues at the nuclear plants derived from this supply mix.

This label is published every year on 31 March on the NEC web page, and corresponds to the energy supplied by each company during the previous year. Power companies must include this information in their invoices to consumers at least for the previous year, as well as in promotional literature.

## **4. THE GUARANTEE OF ORIGIN AND LABELLING FOR ELECTRICITY SYSTEM**

### ***4.1. System start-up***

In Accordance with the first temporary provision of Ministerial Order ITC/ 1522/2007, book entries started to function as from 1 December 2007, after the National Energy Commission established the necessary procedures.

Article 6(1) of the same Order recites '*The National Energy Commission shall establish a book entry system for the purpose of recording information and managing the above-mentioned guarantees of origin.*'

On 29 November 2007, the National Energy Commission approved Circular letter No 2/2007 regulating the start-up and management of the System for the Guarantee of Origin and Labelling for Electricity from renewable energy and high-efficiency cogeneration.

In the first quarter of 2008, the CNE managed this System for energy generated in 2007. During this time certificates were issued, and exports, transfers and payments for guarantees of origin for 2007 took place. Finally, on 1 April 2008, the CNE published the sources of origin for the electricity that each company sold during 2007 and the associated environmental impacts, in terms of CO<sub>2</sub> emissions (kg/kWh) and production of high-intensity radioactive residue (mg/kWh).

Likewise, in accordance with the second temporary provision of Ministerial Order ITC/1522/2007, during the first quarter of 2008, guarantees of origin were issued for energy produced in 2004, 2005 and 2006 and requested in January of the same years. These guarantees were automatically cancelled due to expiration, in accordance with the above temporary provision.

Lastly, throughout 2008 and the first quarter of 2009, the CNE managed the System for the energy produced in 2008. On 1 April 2009, it published on its website the sources of origin for the electricity that each company sold during 2008, and their corresponding environmental impacts.

## 4.2 The Issuance of Guarantees of Origin

In accordance with Circular 2/2007, the owners of production plants, or their representatives, can apply for guarantees of origin on a monthly basis or for periods including several months after the energy has been produced and always before 31 January of the year following the production.

After verifying the information provided on the application, the National Energy Commission must issue the guarantees of origin for the year of production before 28 February of the following year to the owner of the production plant, who shall be the initial holder of the guarantees.

Exceptionally, for 2007, before 28 February 2008, applicants for the issuance or importation of guarantees of origin were allowed to request a transfer of the guarantees, regardless of the fact that these had not yet been issued. Likewise, potential power companies were also exceptionally allowed to request that final consumers be able to redeem certificates, even though the power companies were not yet the holders of these guarantees.

The following tables indicate the various summaries for the guarantees of origin for the declared energy produced in 2007 and 2008, with an indication of the guarantees applied for and those actually issued, broken down according to the type of energy, renewable origin or high-efficiency cogeneration, and the economic classification, either special or ordinary:

### 2007 - Summary of Guarantees of Origin Issued

Type of Energy	Rate	Category	N° of Plants (2)	MW Power	Declared GWh Power	Requested GWh Guarantees	GWh Guarantees Issued	GWh Guarantees for Export (1)
Renewable	Special	Wind Power	272	7.758	15.862	16.301	16.284	
		Photovoltaic	22	1	3	3	3	
		Mini-hydraulic < 10 MW	71	294	608	609	592	
		Mini-hydraulic > 10 MW	11	209	397	397	397	
		Biomass	5	45	167	167	106	
Renewable	Ordinary		381	8.307	17.037	17.477	17.382	
		Large Hydraulic	590	15.840	15.021	24.169	23.340	232
			590	15.840	15.021	24.169	23.340	232
High Eff. Co-	Special	<b>Total Renewable</b>	971	24.150	32.078	41.545	40.722	232
		Natural Gas	17	456	1.623	2.601	2.488	
		Fuel Oil BIA 1	4	165	1.046	825	922	
		Waste Energy	3	206	883	901	854	
			24	827	3.552	4.427	4.241	

generation	Ordinary	Natural gas/Combined cycle	3	1.197	5.589	5.589	2.467	954
			3	1.197	5.589	5.589	2.467	954
		<b>Total Cogeneration</b>	27	2.024	9.141	10.016	6.709	954
Others	Special	Slurry	6	72	426	426		
		Solid Urban Waste	1	19	113	113		
			7	91	539	539	0	0
		<b>Total Others</b>	7	91	539	539	0	0
		<b>TOTAL</b>	<b>1.005</b>	<b>26.265</b>	<b>(3) 41.758</b>	<b>52.201</b>	<b>47.430</b>	<b>1.186</b>

(1) The Guarantees requested for export are not discounted from the guarantees issued.

(2) The statistics include the requests that were denied.

(3) The value is less than the requested guarantees because the declared energy was sometimes incorrect.

The guarantees issued through the Guarantees of Origin System represent 17% of the national electricity production in 2007, and 61% for the overall national production from renewable energy sources and cogeneration.

## 2008 Summary of Guarantees of Origin Issued

Type of Energy	Rate	Category	N° of Plants (2)	MW Power	Declared GWh power	Requested GWh Certificates	GWh Guarantees Issued	GWh Export Guarantees (1)
Renewable	Special	Wind Power	356	10.443	22.438	22.436	21.738	0
Renewable	Special	Photovoltaic	99	314	876	876	840	0
Renewable	Special	Mini-hydraulic	79	11	14	14	14	0
Renewable	Special	< 10 MW	19	414	854	854	853	0
Renewable	Special	Mini-hydraulic > 10 MW	17	74	394	394	376	0
		Biomass						
			572	11.258	24.576	24.576	23.821	0
Renewable	Ordinary	Large-scale Hydraulic	663	15.884	19.425	20.624	18.488	353
			663	15.844	19.425	20.624	18.488	353
		<b>Total Renewable</b>	1.235	27.140	44.001	46.200	42.309	353
H.E. Cogeneration	Special	Natural gas	9	417	2.741	2.190	2.146	0
H.E. Cogeneration	Special	Fuel Oil BIA 1	3	85	372	315	275	0
H.E. Cogeneration	Special	Other	3	216	1.243	1.235	1.235	0
			15	718	4.355	3.471	3.656	0
H.E. Cogeneration	Ordinary	Natural gas/comb Cycle	3	1.198	5.057	4.199	1.372	0
			3	1.198	5.057	4.199	1.372	0
		<b>Total Cogeneration</b>	18	1.916	9.413	7.940	5.028	0
		<b>TOTAL</b>	<b>1.253</b>	<b>29.056</b>	<b>53.414</b>	<b>53.140</b>	<b>47.337</b>	<b>353</b>

(1) The Guarantees requested for export are not discounted from the guarantees issued.

The 2008 results are similar to the 2007 results. The guarantees issued through the Guarantees of Origin System for energy generated in 2008 represent 16% of national electricity production for that year, and 53% of the national production from renewable energy sources and cogeneration. The final destination of the guarantees of origin issued for energy generated in 2007 and 2008 is reflected in the following tables:

### 2007 Evolution of Guarantees of Origin Issued

Type of Energy	GWh Exported	GWh Transferred	GWh Expired	GWh Guarantees Issued
Renewable	232	29,458	11,031	40,722
High-efficiency cogeneration		1,514	5,195	6,209
<b>TOTAL</b>	<b>232</b>	<b>30,972</b>	<b>16,226</b>	<b>47,340</b>
% for Guarantees Issued	0.5%	65.3%	34.2%	100%

34% of the guarantees issued in 2007 whose last holder is the Proprietor of a power plant were cancelled due to expiration on 31 March 2008.

### 2008 Evolution of Guarantees of Origin Issued

Type of Energy	GWh Exported	GWh Transferred	GWh Expired	GWh Guarantees Issued
Renewable	353	39,722	2,234	42,309
High-efficiency cogeneration		2,933	2,095	5,028
<b>TOTAL</b>	<b>363</b>	<b>42,655</b>	<b>4,329</b>	<b>47,337</b>
% for Guarantees Issued	0.7%	90%	9.2%	100%

Only 9.2% of the guarantees issued in 2008 whose last holder is the Proprietor of a power plant were cancelled due to expiration on 31/03/2009.

However, in 2008 guarantees of origin were also issued for energy produced in 2004, 2005 and 2006, which simultaneously expired upon issuance, in accordance with legislation.

### 2004, 2005, 2006 Summary of Guarantees of Origin Issued

Type of Energy	Rate	Category	No. Of Plants (2)	MW Power	GWh Guarantees Requested	GWH Guarantees Issued
Renewable	Special	Wind Power	25	869.400	1,764.303	1.764.303.730
Renewable	Special	Photovoltaic	6	34	.730	36.423
Renewable	Special	Mini-Hydraulic < 10 MW	22	67.257	47.437	140.508.707
	Special				140.672.106	
		Total Renewable	53	937.267	1,905.023.279	1.904.850.850

H.E. Cogeneration	Special	Fuel oil	1	37.930	303.482.0	303.482.00
H.E. Cogeneration	Special	Natural Gas	6	501.141	00	2.708.633.616
H.E. Cogeneration	Special	Waste	3	212.862	2.807.026	877.892.946
					.865	
					906.494.9	
					19	
		Total Cogeneration	10	751.935	4.017.005	3.890.008.562
					.184	
		<b>TOTAL</b>	<b>63</b>	<b>1,689.2</b>	<b>5.922.026</b>	<b>5.794.859.422</b>
				<b>00</b>	<b>.457</b>	

Finally, it is noteworthy that no import requests for Guarantees of Origin have been filed, among other reasons, because the European Commission has not responded to the request to inform the NEC of the other agencies authorised to issue Guarantees of Origin in other EU countries, as set forth in article 5.2 of this Order.

### **4.3 Exporting Guarantees of Origin**

Subsections 4 and 6 of Article 5 of Directives 2001/77/CD and 2004/8/CE specify that *“Member States should mutually acknowledge Guarantees of Origin.”*

Only 232 GWh and 353 GWh, respectively, were exported out of the Guarantees of Origin requested for exported energy produced in 2007 and 2008. In both cases these correspond to renewable hydraulic energy under the ordinary rate system and the country of destination was Italy. Since it was not for energy under the special rate system, it was not necessary to reimburse the premium that would have been received for this energy with a guarantee of origin for exportation.

On 29 July 2008, the NEC approved the report *“on the handling of confidentiality requests in the Guarantee of Origin and Labelling System for Electricity ,”* as a result of certain requests for issuance that were accompanied by confidentiality requests. The NEC considered that the purpose of this system is to increase the transparency of electrical energy, in keeping with the objectives of Directives 2001/77/EC and 2004/8/EC. Moreover, participation in the system is voluntary, and therefore, the information regarding power plants attached to the Guarantees of Origin cannot be confidential.

Additionally, an accreditation form was approved in the same report for Guarantees of Origin for producers or power companies and may be requested from the NEC for said accreditation to be publicly displayed in their facilities or to show to third parties. This system allows producers or power companies to have an official document with more information than that contained in the initial notice of issuance or the public information on the label. In the first case, the producer can use this document for advertising purposes or for trading guarantees between countries. Similar accreditations are issued by other agencies responsible for the issuance of Guarantees of Origin.

Finally, it should be pointed out that the exporting agent for guarantees remitted to Italy asked the NEC to provide the accreditation document linked to the exported guarantees.

#### ***4.4 Transferring Guarantees of Origin***

In accordance with current legislation, the request to have the Guarantees of Origin issued and imported must be filed before 31 January of each year for guarantees covering the previous year. The request for transfer must be filed before 15 March of each year for guarantees covering the previous year.

Below is a list of the companies that received Guarantees of Origin for energy produced in 2007 and 2008, according to the requests for transfer received at the NEC.

2007

## Summary of Transferred Guarantees of Origin

Power Company	Transferred GOs		Total GOs GWh	GOs Sold 2007 %
	H.E. cogeneration	Renewable		
ACCIONA GREEN ENERGY DEVELOPMENTS S.L	0	3.986	3.986	40738%
CENTRICA EBERGIA S.L.U	0	350	350	114%
DERIVADOS ENERGETICOS PARA EL TRANSPORTE Y LA INDUSTRIA, S.A. (DETISA)	20	0	20	189%
ENDESA ENERGIA S.A	0	6.693	6.693	18%
ENEL VIESGO ENERGIA S.L	0	544	544	59%
GAS NATURTAL COMERCIALIZADORA S.A	0	770	770	50%
GAS NATURAL SERVICIOS SDG S.A	1	429	429	52%
HIDROCANTABRICO ENERGIA S.A UNIPERSONAL	0	2.073	2.073	22%
IBERDROLA S.A	0	11.452	11.452	150%
NATURGAS COMERCIALIZADORA, S.A	0	348	348	21%
NEXUS ENRGIA S.A	0	19	19	11%
UNION FENOSA COMERCIAL, S.L	1.493	2.794	4.287	40%
<b>TOTAL Transferred</b>	<b>1.514</b>	<b>29.458</b>	<b>30.972</b>	

(1) The percentage % represents the relationship between the GOs acquired by each power company and the energy sold to their final customers.

**2008**  
**Summary of Transferred Guarantees of Origin**

Power Company	Transferred GOs		Total GOs GWh	GOs Sold 2007 %
	H.E. cogeneration	Renewable		
ACCIONA GREEN ENERGY DEVELOPMENTS S.L	0	4.885	4.886	1.978%
CENTRICA EBERGIA S.L.U	201	1.105	1.306	133%
DERIVADOS ENERGETICOS PARA EL TRANSPORTE Y LA INDUSTRIA, S.A. (DETISA)	140	0	140	113%
ENDESA ENERGIA S.A	0	8.808	8.808	20%
EON ENERGIA, S.L	0	1.265	1.265	117%
GAS NATURTAL COMERCIALIZADORA S.A	13	542	555	9%
GAS NATURAL SERVICIOS SDG S.A	0	300	300	57%
HIDROCANTABRICO ENERGIA, S.A UNIPERSONAL	0	2.596	2.596	25%
IBERDROLA S.A	1.691	16.225	17.916	107%
NATURGAS COMERCIALIZADORA, S.A	0	530	530	24%
UNION FENOSA COMERCIAL, S.L	888	3.465	4.353	26%
<b>TOTAL Transferred</b>	<b>2.933</b>	<b>39.722</b>	<b>42.665</b>	

(1) The percentage % represents the relationship between the GOs acquired by each power company and the energy sold to their final customers.

#### 4.5 Cancellation of Guarantees of Origin

The guarantees of origin issued for the previous year's energy production automatically expire on 31 March of each year.

#### 2007 Evolution of Transferred Guarantees of Origin

Holding Power Company Holding Guarantee	Redeemed GOs GWh	Expired GOs GWh	GOs Transferred 2007
ACCIONA GREEN ENERGY DEVELOPMENTS S.L	10	3.976	3.986
CENTRICA EBERGIA S.L.U		350	360
DERIVADOS ENERGETICOS PARA EL TRANSPORTE Y LA INDUSTRIA, S.A. (DETISA)		20	20
ENDESA ENERGIA S.A		6.693	6.693
ENEL VIESGO ENERGIA, S.L	402	142	544
GAS NATURTAL COMERCIALIZADORA S.A		770	770
GAS NATURAL SERVICIOS SDG S.A		429	429
HIDROCANTABRICO ENERGIA, S.A UNIPERSONAL	2.069	4	2.073
IBERDROLA S.A		11.452	11.452
NATURGAS COMERCIALIZADORA, S.A		348	348
NEXUS ENERGIA S.A		19	19
UNION FENOSA COMERCIAL, S.L	1	4.286	4.287
<b>TOTAL</b>	<b>2.482</b>	<b>28.490</b>	<b>30.972</b>
% of GO's Transferred	8%	92%	100%

## 2008

### Evolution of Transferred Guarantees of Origin

Holding Power Company Holding Guarantee	Redeemed GOs GWh	Expired GOs GWh	GOs Transferred 2007
ACCIONA GREEN ENERGY DEVELOPMENTS S.L	244	4.642	4.886
CENTRICA EBERGIA S.L.U		1.306	1.306
DERIVADOS ENERGETICOS PARA EL TRANSPORTE Y LA INDUSTRIA, S.A. (DETISA)		140	140
ENDESA ENERGIA S.A	16	8.792	8.808
EON ENERGIA, S.L	275	990	1.265
GAS NATURTAL COMERCIALIZADORA S.A		555	555
GAS NATURAL SERVICIOS SDG S.A		300	300
HIDROCANTABRICO ENERGIA, S.A UNIPERSONAL	2.594	2	2.596
IBERDROLA S.A		17.916	17.916
NATURGAS COMERCIALIZADORA, S.A	251	279	530
UNION FENOSA COMERCIAL, S.L	51	4.302	4.353
<b>TOTAL</b>	<b>3.431</b>	<b>39.224</b>	<b>42.655</b>
% of GO's Transferred	8%	92%	100%

The tables above illustrate the destination reported by the power companies for the guarantees transferred to them for each year. A small part was redeemed in the supply to certain consumers (8%) and another part expired while held by the power companies (92%) on the following 31 March.

The 8% of the guarantees transferred to a final consumer correspond to guarantees for renewable energy sources, as shown in the following tables:

## 2007

### Summary of Redeemed Guarantees of Origin

Holding Company Guarantee	Power Holding	GOs received as transfers GWh	Redeemed GOs	Total GO's Redeemed GWh	% Redeemed GOs	Total CUPS Redeemed	GO's/CUPS	
			H.E. COGEN	RENEWABLE				GWh
ACCIONA GREEN ENERGY DEVELOPMENTS S.L		3.986	0	10	10	0.3%	5	2.02
ENEL VIESGO ENERGIA, S.L		544	0	402	402	73.9%	291	1.38
HIDROCANTABRICO ENERGIA, UNIPERSONAL	S.A	20.73	0	2.069	2.069	99.8%	59.609	0.03
UNION COMERCIAL, S.L	FENOSA	4.287	0	1	1	0.0%	4	0.21
<b>TOTAL</b>		<b>10.891</b>	<b>0</b>	<b>2.482</b>	<b>2.482</b>	<b>22.8%</b>	<b>69.909</b>	<b>0.04</b>

## 2008

### Summary of Redeemed Guarantees of Origin

Holding Company Guarantee	Power Holding	GOs received as transfers GWh	Redeemed GOs	Total GO's Redeemed GWh	% Redeemed GOs	Total CUPS Redeemed	GO's/CUPS	
			H.E. COGEN	RENEWABLE				GWh
ACCIONA GREEN ENERGY DEVELOPMENTS S.L		4.886	0	244	244	5.0%	21	11.62
ENDESA ENERGIA S.A		8.808		16	16	0.2%	19	0.84
EON ENERGIA, S.L		1.265	0	275	275	21.7%	37	0.74
HIDROCANTABRICO ENERGIA, UNIPERSONAL	S.A	2.565	0	2.594	2.594	99.9%	75.234	0.03
NATURGAS COMERCIALIZADORA S.A		530		251	251	47.4%	40.030	0.01
UNION COMERCIAL, S.L	FENOSA	4.353	0	51	51	1.2%	11	4.64
<b>TOTAL</b>		<b>22.438</b>	<b>0</b>	<b>3.431</b>	<b>3.431</b>	<b>15.3%</b>	<b>115.685</b>	<b>0.03</b>

Four power companies providing service to almost 60,000 consumers carried out the redemption in final customer in 2007, and six power companies did so in 2008 in almost 116,000 customers, which is an indication that there is greater awareness and a progression of this system with final consumers.

#### 4.6 Labelling of Electricity

Once all of the above calculations are completed, as provided for in Circular No 1/2008 of NEC of 7 February 2008 on the labelling of electricity, the annual energy mix for the entire electrical system as well as the power companies participating in this system and acquiring Guarantees of Origin are established and the ‘generic’ distributors who have not participated. The corresponding CO<sub>2</sub> emissions and related production of highly-radioactive residue are also obtained.

This information, corresponding to the annual energy mix produced for the entire electricity system and the “generic” distribution is illustrated below in the form of tables and charts for 2007 and 2008. Annex 4 of this report lists the results for free distribution:

#### 2007

ENERGY MIX	PRODUCTION MIX	GENERIC POWER COMPANY MIX
	%	%
Renewable	20,6%	11,5%
High-efficiency Cogeneration	2,3%	2,0%
Cogeneration	6,8%	7,6%
CC Natural Gas	22,6%	25,4%
Carbon	24,7%	27,7%
Fuel/Gas	3,5%	4,0%
Nuclear	18,4%	20,6%
Other	1,1%	1,2%
CARBON DIOXIDE EMISSIONS Kg of carbon dioxide per KWh	0,40 D	0,45 E
RADIOACTIVE WASTE AA Milligrams per KWh	0,54 D	0,60 E

#### 2008

ENERGY MIX	PRODUCTION MIX	GENERIC POWER PLANT MIX
	%	%
Renewable	20,7%	8,2%
High-efficiency Cogeneration	1,7%	0,8%
Cogeneration	8,1%	9,5%
CC Natural Gas	30,1%	35,2%
Carbon	15,9%	18,6%
Fuel/Gas	3,3%	3,9%
Nuclear	19,3%	22,6%
Other	0,9%	1,2%
CARBON DIOXIDE EMISSIONS Kg of carbon dioxide per KWh	0,39 D	* *
RADIOACTIVE WASTE AA Milligrams per KWh	0,42 D	* *

**Image:**

PRODUCTION MIX

GENERIC PRODUCER WITHOUT GUARANTEES OF ORIGIN

Carbon

Fuel /Gas

Nuclear

Other

Renewable

High-efficiency Cogeneration

Cogeneration

CC Natural Gas

Below is the position reached by each power company according to its annual participation in the Guarantee of Origin and Labelling System for Electricity. The energy mix that produced the electrical energy sold by each power company is stated, as well as their specific CO2 emissions and production of highly-active waste.

**2007**

POWER COMPANY MIX	GENERIC PRODUCER WITHOUT GUARANTEES OF ORIGIN	ACCIONA GREEN ENERGY DEV.S.L	CENTRICA ENERGIA S.LU	OETISA	ENDESA ENERGIA S.A	ENEL VIESGO ENERGIA S.L	GAS NATURAL COMERCIAL S.A	GAS NATURAL SERVICIOS S.A	HIÜROCAN TABRICO ENERGIA SA	İBERDROLA S. A	NATURAS COMERC, S.A.	NEXUS ENERGI A SA	UNION FEWOSA COMERCIAL S.L
Renewable	11,5%	100,0%	100,0%	0,0%	27,7%	64,0%	55,0%	57,0%	31,1%	100,0%	30,1%	21,6%	34,5%
High-efficiency Cogeneration	2,0%	0,0%	0,0%	100,0%	2,0%	2,0%	2,0%	2,1%	2,0%	0,0%	2,0%	2,0%	15,6%
Cogeneration	7,8%	0,0%	0,0%	0,0%	6,2%	3,0%	3,7%	3,5%	5,9%	0,0%	6,0%	6,7%	4,4%
CC Natural Gas	25,4%	0,0%	0,0%	0,0%	20,7%	10,0%	12,5%	11,8%	19,7%	D,0%	20,0%	22,5%	14,7%
Carbon	27,7%	0,0%	0,0%	0,0%	22,5%	10,9%	13,6%	12,8%	21,4%	0,0%	21,7%	24,5%	18,0%
Fuel /Gas	4,0%	0,0%	0,0%	0,0%	3,2%	1,6%	1,6%	1,8%	3,1%	0,0%	3,1%	3,5%	2,3%
Nuclear	20,6%	0,0%	0,0%	0,0%	16,3%	3,1%	10,1%	9,6%	15,9%	0,0%	16,2%	18,2%	11,9%
Other	1,2%	0,0%	0,0%	0,0%	0,0%	0,4%	0,6%	0,6%	0,9%	0,0%	0,0%	1,0%	0,6%
<b>CARBON DIOXIDE EMISSIONS</b> Kg of carbon dioxide per KWh	0,45 E	0,0 A	0,00 A	0,36 D	0,37 C	0,16 S	0,22 B	0,21 a	0,35 C	0,00 A	0,35 C	0,40 D	0,31 C
<b>H A RADIOACTIVE WASTE</b> Milligrams per KWh	0,60 E	0,00 A	0,00 A	0,00 A	0,49 C	0,24 B	0,30 B	0,28 B	0,47 C	0,00 A	0,47 C	0,53 D	0,35 C

2008

POWER COMPANY MIX	GENERIC PRODUCER WITHOUT GUARANTEES OF ORIGIN	ACCIONA GREEN ENERGY DEV.S.L	CENTRICA ENERGIA S.LU	DETISA	ENDESA ENERGIA S.A	E.ON ENERGIA S.L	GAS NATURAL COMERCIAL S.A	GAS NATURAL SERVICIOS S.A	HIDROCAN TABRICO ENERGIAS S.A	IBERDROLA S.A	NATURAS COMERCIAL S.A	UNION PENOSA COMERCIAL S.L
Renewable	8,2%	100,0%	100,0%	0,0%	20,4%	100,0%	16,7%	60,9%	31,6%	90,0%	30,3%	27,1%
High-efficiency Cogeneration	0,8%	0,0%	0,0%	100,0%	0,8%	0,0%	1,1%	0,8%	0,8%	10,0%	0,8%	6,0%
Cogeneration	9,5%	0,0%	0,0%	0,0%	7,6%	0,0%	8,6%	4,0%	7,0%	0,0%	7,2%	7,0%
CC Natural Gas	35,2%	0,0%	0,0%	0,0%	26,2%	0,0%	31,9%	14,8%	26,2%	0,3%	26,7%	25,9%
Carbon	18,6%	0,0%	0,0%	0,0%	14,9%	0,0%	16,8%	7,8%	13,0%	0,0%	14,1%	13,7%
Fuel /Gas	3,0%	0,0%	0,0%	0,0%	3,1%	0,0%	3,5%	1,6%	2,9%	0,0%	3,0%	2,9%
Nuclear	22,6%	0,0%	0,0%	0,0%	18,1%	0,0%	20,4%	9,5%	16,8%	0,0%	17,1%	16,0%
Other	1,2%	0,056	00%	0,08	0,9%	0,0%	1,0%	0,6%	0,9%	0,0%	0,8%	0,8%
<b>CARBON DIOXIDE EMISSIONS</b> Kg of carbon dioxide per KWh												
	*	0,00	0,0	0,38	0,37	0,00	0,42	0,19	0,34	0,04	0,35	0,36
		A	A	C	C	A	E	B	C	A	C	C
<b>H A RADIOACTIVE WASTE</b> Milligrams per KWh												
	*	0,00	0,00	0,00	0,39	0,011	0,45	0,21	0,37	0,00	0,37	0,36
	*	A	A	A	C	A	E	B	C	A	C	C

5. DECLARED REVENUES

Article 7, Accounting Separation, of Order 1TC/1522/2007, 24 May, states the following:

*“Revenues obtained from the sale of guarantees of origin must be accounted for separately. During the first quarter of each year, producers who have received guarantees of origin in their name shall provide the National Energy Commission with a report on how these revenues will be assigned. Revenues can be set aside to develop new plants under the special rates system that are not profitable with the current payment system. Otherwise, revenues can be allocated for general research and development (R&D) aimed at improving the environment.”*

The National Energy Commission has received the information reflected in the following table from certain producers who have received Guarantees of Origin for revenues received from the transfer of these guarantees to the power companies.

**REVENUES FROM TRANSFERS OF GUARANTEES OF ORIGIN**

Organisation	Type of Energy	Power (MW)	Year	Transferred guarantees (XWhf)	Transferred Guarantees (kWh)	Revenues (€)	Revenues (€/MWh)	Destination of Revenues
Endesa Generación SA	Renewable	5.323,50	2008	6.769.882.531	6.769.882.531	0,00 €	0,00	
Unión Fenosa Generación SA	Renewable	1.684,20	2007	2.686.714.190	2.689.714.190	0,00 €	0,00	
Endesa Cogeneration y Renovables SA	Renewable	814,72	2008	1.616.450.249	1.616.450.249	0,00 €	0,00	
Nueva Generadora del Sur SA	Cog. A E	780,66	2007	1.513.335.529	1.613.335.529	0,00 €	0,00	
E.On Generación SL	Renovable	306,32	2008	488.745.496	488.745.496	0,00 €	0,00	
R+D Projects Eólicos Valencianos SA	Renewable	185,40	2008	140.057.439	146.558.374	-	0,00	
Ferro atlántica SA	Renewable	147,90	2008	340.264.993	340.264.993	0,00 €	0,00	
Molinos del Cidacos SA	Renewable	144,01	2007	324.467.233	324.467.233	0,00 €	0,00	
Molinos del Cidacos SA	Renewable	144,01	2008	304.493.959	304.493.959	0,00 €	0,00	
Desarrollo de Energys Renovables de la Rioja	Renewable	99,01	2007	217.001.814	217.001.814	0,00 €	0,00	
Desarrollo de Energys Renovables de la Rioja	Renewable	99,01	2008	205.708.690	205.708.691	0,00 €	0,00	
Molinos de la Rioja SA	Renewable	57,75	2007	117.910.723	117.910.723	0,00 €	0,00	
Molinos de la Rioja SA	Renovable	67,75	2008	109.552.585	109.552.585	0,00 €	0,00	
Ecovent Pare Eolio SA	Renewable	48,10	2008	0	95.172.042			not applicable
Parque Eólico Alentisque SL	Renewable	46,50	2008	0	76.079.501			not applicable
Montoulo 2000 SA	Renewable	35,75	2008	95.054.422	95.054.422	0,00 €	0,00	
Salto y Centrales de Catalunya S A	Renewable	35,57	2008	68.687.395	66.687.395	0,00 €	0,00	
Granada Vapor y Electricidad SL	Cog. AE	34,60	200a	73.090.500	73.090.500	0,00 €	0,00	
IDA E	Renewable	30,44	2008	46.412.245	46.412.245	0,00 €	0,00	
Energys Eólicas del Pino SL	Renewable	24,60	2008	0	74.768.557			not applicable
Generación Peninsular SL	Renewable	20,90	2007	96.021.045	96.021.045	0,00 €	0,00	
Patrimonio del Lérez SL	Renovable	13,21	2008	34.416.026	34.416.026	0,00 €	0,00	
Patrimonio Hidroeléctrico de Galicia SL	Renewable	12,81	2008	16.981.643	16.981.643	0,00 €	0,00	
Energys de Aragón IISLU	Renewable	11,98	2008	24.178.058	24.178.058	0,00 €	0,00	
Técnicos Asociados Gallegos SL	Renewable	9,00	2008	26.109.961	28.109.951	0,00 €	0,00	
CESPA Gestión de Residuos SA	Renewable	7,81	2008	38.524.000	38.524.087	4,96 €	0,13	R+D Project Probioagas
Térmica Afap SA	Renewable	7,80	2008	8.157.070	8.157.070	0,00 €	0,00	
Cogeneration Zorroza AIE	Cog. AE	6,00	2008	27.508.068	27.508.068	0,00 €	0,00	
CLP OrganogasSL	Renewable	5,14	2008	35.535.752	35.536.752	0,00 €	0,00	
Salto del Arga SLU	Renewable	4,75	2008	0	12.509.231	-		not applicable
Energys Alternativas del Bierzo I SA	Renewable	3,14	2008	5.547.057	5.547.057	0,00 €	0,00	
Hidroeléctrica del Urmiá SL	Renewable	3,08	200S	929.655	929.666	0,00 €	0,00	
Nufri Solar SL	Renewable	2,30	2008	2.225.729	2.226.729	0,00 €	0,00	
CESPA Cia Servicios Públicos Auxiliares S A	Renewable	2,05	2008	12.046.352	12.046.352	3,27 €	0,27	R+D Project Vitivinicola
Poal Fotovoltaica SL	Renewable	2,00	2008	1.357.052	1.357.052	0,00 €	0,00	
GenWdro SL	Renewable	1,69	2008	2.405.218	2.405.218	0,00 €	0,00	
Baltasar Moralejo e Hijos SL	Renewable	1,41	2008	0	2.084.489	-		not applicable
UTE CESPA Gestión Residuos y ADA3A Sistemas SA	Renewable	1,22	2008	2.533.454	2.533.454	100,00 €	0,04	R+D Project Probioagas
Arisol 100, SL	Renewable	1,20	2008	255.308	256.308	0,00 €	0,00	
CESPA Gestión de Residuos SA Energy Swrde Europa	Renewable	1,06	2008	8.469.038	8.469.038	0,00 €	0,00	
UTE CESPA Gestión Residuos y CESPA Cia Servidas	Renovable	1,05	2006	4.393.539	4.393.539	977,09 €	0,22	R+D Project Probioagas
Públicos Auxiliares SA	Renovable	0,6B	2008	4.297.386	4.297.386	0,00 €	0,00	
Biogardelegui SA	Renewable	0,63	2008	4.098.131	4.096.131	0,00 €	0,00	
Abanilla Energy SL	Renewable	0,50	2008	1.484.546	1.434.546	0,00 €	0,00	
Ayuntamiento de Logroño	Renewable	0,37	2008	1.114.717	1.114.717	0,00 €	0,00	
Sociedad Agraria de Transformación "Nufri"	Renewable	0,29	2008	0	458.475			not applicable

Producciones Fotovoltaicas Zamoranas SL	Renewable	02B	2008	0	446.479			not applicable
Producciones Fotovoltaicas Bajo Duero SL	Renewable	0,19	200B	0	391.382			not applicable
Producciones Fotovoltaicas Bamba SL	Renewable	0,19	2008	0	385.657			not applicable
Pieles Barrado Moralejo SL	Renewable	0,1 0	2008	0	196,248			not applicable
Amisar SL	Renewable	0,08	2008	127.820	127.620	0,00 €	0,00	
Hinojosa Ledesma	Renewable	0,0 8	2008	157.431	157.431	0,00 €	0,00	
Summertown SL	Renewable	0,01	2008	9.131	S.131	0,0 0 €	0,00	
<b>TOTAL</b>				<b>10.1 06,7 3</b>	<b>15.477.714. 182</b>	<b>15.746.846. 068</b>	<b>9.319,01 €</b>	

Two consequences can be inferred from the information in the table above:

- The overwhelming majority of the producers declare that they have not received any revenues from transferring Guarantees of Origin.
- Most of the producers who have had guarantees of origin transferred to them have not informed the NEC, among them some very significant ones. The list of the proprietors/representatives that have not reported is found in Annex 1.

Therefore, the two following measures are agreed upon:

- a) That the following Inspection Plan includes a sample of the producers reflected in the previous table in order to analyse their revenues from electricity production and determine the veracity of the reported information.
- b) Extend this inspection to a sample of the producers listed in Annex 1 to those authorised to transfer the guarantees that did not inform the NEC of their potential revenues from the latter.

## 6 DEGREE OF COMPLIANCE WITH THE INDICATIVE TARGETS

Article 15.2 of Order ITC/1522/2007 of 24 May 2007 states that the NEC must inform the Ministry of Industry, Tourism and Commerce every two years of the extent of compliance with the national indicative targets regarding renewable energy sources.

This mandate is in line with Article 21 of Royal Decree 661/2007 of 25 May 2007 regulating the production of electrical energy under a special rates system. It institutes a reporting system for compliance with the power objective for each technology managed by NEC through its web page to demonstrate the total power for each technology at all times. This is permanently recorded in the Administrative Register of Power Plants under the special rates system, with the degree of progress in respect of the power objectives, the monthly evolution, as well as the estimated term for compliance with the corresponding objective.

The NEC has set up this system and updates it monthly. The information currently published regarding all of the above aspects corresponds to the billing information reported for energy generated until April 2009.

Results for month No. / Year: 4 2009
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	<i>PE<sub>n</sub></i> (MW) (1)	<i>PO</i> (MW) (2)	<i>G<sub>n</sub></i> (%) (2)	<i>V</i> (MW/ month) (3)	<i>N85</i> (n° months) (3)	<i>N100</i> (n° months) (4)	<i>P<sub>in</sub></i>	<i>P<sub>i n-12</sub></i>
<b>Cogeneration</b>	6.483	9.215	70%	.35	36	78	6.159	6.052
<b>Solar PV"</b>	4.614	371	1244%	299	SUPER ADO	SUPER ADO	3.258	1.022
<b>Solar thermoel ectric</b>	11	500	2%	-		-	11	-
<b>Wind power</b>	16.619	20.155	82%	135	4	26	15.788	14.999
<b>Wind power (DT7")</b>	0	2000	0%	.		-	-	
<b>Hydrauli c</b>								
<b>=&lt;10MW Biomass</b>	1.357	2.400	57%	4	168	257	1.289	1,306
<b>(b6 and bB) Biomass</b>	417	1317	32%	2	418	535	396	396
<b>(W) Solid Urban Waste</b>	165	250	65%	0	-	-	157	163
	269	350	77%	0	-		269	269

\*Note: Once the power objective value is reached in this technology, the equivalent power (EP) is considered to have been reached according to the plant rate over the last 9 months which may differ from the actual rate of current growth.

From the above information, apart from compliance with the solar photovoltaic technology objective in 2008, already reported to the Ministry of Industry, Tourism and Commerce, it can be observed that the wind power technology objective has almost been reached.

However, Royal Decree-Law 6/2009 of 30 April 2009 providing certain measures for the energy sector and approving the rates subsidy, created in its Article 4 the remuneration pre-selection register for the special rate power plants. This mechanism aims to provide greater security to new projects when collecting the current economic incentives thereby avoiding the uncertainties of Article 22.1 of Royal Decree 661/2007 of 25 May 2007 which obliged them to remain permanently registered on the Administrative Production Register under the special system, before the deadline to be established by the Secretary of State for Energy once 85% of the objective for a certain technology had been reached.

## **7. OTHER LEGISLATIVE ASPECTS**

### **7.1 Guarantees of Origin and Marketable Green Certificates**

Although the way that Guarantees of Origin are issued and traded may be comparable to marketable green certificates, there is a large conceptual difference between the two systems as a result of their fundamental objectives. Whereas the guarantees aim to provide transparency to the system, and are voluntary in nature, the certificates are seen as a support system to develop renewable energies, and are therefore obligatory in nature for some of the system agents (power companies or producers). This voluntary nature, and not the possibility of trade, is what clearly differentiates the guarantees from the certificates and complies with section 11 of Directive 2001/77/EC. Nearly half of the EU countries have regulated their guarantee systems with the possibility of trade and redemption in the final consumers, whereas not all of the countries which have adopted the certificates as support systems (six in total) have regulated said redemption.

### **7.2 Guarantees of Origin and Premiums**

The Guarantee of Origin and Labelling System for Electricity offers consumers the possibility of selecting and purchasing electricity from renewable or efficient sources. This assumes an element of transparency that improves consumers' ability to have an effect on the market. Hence, it gives consumers the possibility of acquiring a product with a distinguishable origin, and paying more for it if they choose, depending on the product's cost in comparison with its distribution margin. However, establishing a premium is a response to the Government's energy policy laid out in the current legislation (Electricity Sector Law) which incorporates the universal obligation of financing and promoting clean energy nationally in order to fulfil the energy and environmental objectives set out in the planning and coincide with their European Union commitments.

Premiums level the playing field between special energies (renewable and cogeneration) and ordinary energy sources (fossil fuels) that are cheaper than the former, as they do not take into account all of the environmental costs. Once premiums are granted, the different types of energy can compete on the market.

Additionally, the Guarantee of Origin and Labelling System reveals the positive environmental aspect of the renewable energy sources and cogeneration to consumers thereby increasing its competitiveness on the market. Guarantees redeemed in

consumers make it possible to establish with third parties that a certain annual amount of renewable energy or high efficiency energy has been assigned, which could cover its entire consumption. The guarantees redeemed from the first consumer are symmetrically deducted from the remaining consumers. Therefore, the coexistence of premiums and guarantees is perfectly compatible and does not constitute double taxation. As the case may be, income that could show up for producers as a consequence of the Guarantees of Origin should be considered in the four-year review of premiums applicable to new power plants.

In short, the premiums constitute a mechanism for the promotion of renewable energy sources and cogeneration that has proven effective and efficient in comparison with promotional mechanisms using green certificates. The guarantee of origin system is not a promotional mechanism (Spain already uses premiums for this purpose) but rather a system that attempts to be transparent for consumers. Once the premiums are granted to plants using renewable energy sources and cogeneration, they can compete on the market with conventional power plants, and consumers, represented by a power company, in addition to watching the price, can acquire energy on the basis of its environmental attribute.

### ***7.3 Guarantees of Origin and the New Directive***

Directive 2009/28/EC on the development of renewable energy sources consolidates the principle of subsidiarity of Member States so that they can select their support systems and simultaneously promulgate a guarantee of origin system to give transparency to electricity consumers; this is why trade in guarantees compatible with the support systems is under consideration (analogous to what currently exists in Spain). Likewise, the Directive incorporates some cooperation mechanisms to make it possible for States to fulfil the 2020 objectives.

Nevertheless, the Directive does not allow the guarantees to be exported by individuals and to do so the Spanish legislation which currently permits it will have to be modified , in exchange for waiving the premium received by renewable energy sources under the special rates system.

Annex 2 includes a Note on the most important aspects of the Directive in relation to the guarantees of origin.

#### **7.4 Guarantees of Origin for Export to Italy**

In Italy, the promotion of renewable energy sources is done through a system of marketable green certificates. Through this system, electricity producers are obliged to justify before the regulator that a minimum percentage of the annual energy produced comes from renewable sources. In order to do this, producers can either produce electricity using their own renewable sources, or acquire certificates (equivalent to the guarantees of origin) issued in Italy or in another European country.

In the case of the accreditations requested by Iberdrola, the guarantees of origin were issued for energy generated in 2007 by certain hydraulic power plants under the ordinary rate system. How the accreditations that the NEC granted to Iberdrola are used in Italy is unknown. Everything indicates that this company is interested in having the Italian regulatory body acknowledge this production in Spain as being from renewable energy sources either to justify compliance with their minimum percentage requirements as a producer in Italy, or to convey these guarantees to third parties.

Annex 3 includes a Note on how the Italian system works.

### **8 SUMMARY AND CONCLUSIONS**

The CNE informs the Ministry of Industry, Tourism and Commerce that, for its first 18 months, the Guarantee of Origin and Labelling for Electricity System can be qualified as acceptable.

The System was established Ministerial Order ITC/1522/2007 of 24 May 2007 regulating the guarantee of origin for electricity from renewable energy sources and high-efficiency cogeneration and Article 110a of Royal Decree No 1955/2000 of 1 December 2000, in the version provided by Royal Decree No 616/2007 of 11 May 2007. This implies the transposition into Spanish legislation of Directive 2001/77/EC on the promotion of electricity produced from renewable energy sources in the internal electricity market, Directive 2004/8/EC on the promotion of cogeneration based on a useful heat demand in the internal energy market, and Directive 2003/54/EC concerning common rules for the internal market in electricity .

By means of the Guarantee of Origin and Labelling for Electricity System it is possible to guarantee the origin of electrical energy generated from renewable sources or through high-efficiency systems, determine the overall mix of primary energies that are used each

year to produce electricity, and identify the energy mix sold during the previous year by each energy company and the environmental impact thereof (electricity labelling).

In 2008 guarantees of origin for the energy produced in 2004, 2005 and 2006 were issued, but were automatically cancelled due to expiration, in accordance with the relevant legislation.

During the first quarter of 2008, the CNE managed the System for energy generated in 2007 with guarantees of origin being issued, exported, transferred and cancelled for 2007. The guarantees issued represented 17% of the national electricity produced in 2007 and 61% of the total national production from renewable energy sources and cogeneration.

The results obtained up to the first quarter of 2009 for energy generated in 2008 were similar to 2007. The guarantees issued for energy generated in 2008 represented 16% of the national electricity produced in 2008 and 53% of the national production from renewable energy sources and cogeneration.

The final destination of the guarantees of origin issued for energy generated in 2007 and 2008 was as follows:

- 34% of the guarantees issued in 2007 remained in the possession of the operator and was cancelled upon expiry on 31 March 2008, whereas only 9.2% of the guarantees issued in 2008 was kept by the operator and were cancelled upon expiry on 31 March 2009.
- Only 0.5% and 0.7% of the guarantees respectively issued in 2007 and 2008 was set aside for export. Since it was not energy generated under a special scheme, it was not necessary to reimburse the premium that would have been paid out for this energy with guarantees of origin for export.
- Lastly, 65.3% and 90.1% of the guarantees issued for 2007 and 2008 respectively went to power companies.

Only 8% of the guarantees transferred to power companies in both years was finally transferred and redeemed at final consumer level, with the other 92% expiring in March of each year.

Redemption at final consumer level was carried out in 2007 by four power companies for almost 60,000 customers, whereas in 2008, it concerned six power companies and almost 116,000 customers. This is evidence of the increased awareness among final consumers and the system progress.

Once all of the above calculations are completed, the annual mix of energy production for the entire electricity system is determined, as well as the power companies participating in this system and acquiring guarantees of origin and the 'generic' power companies who have not participated. Likewise, the corresponding CO<sub>2</sub> emissions and related production of highly-active radioactive waste are also determined.

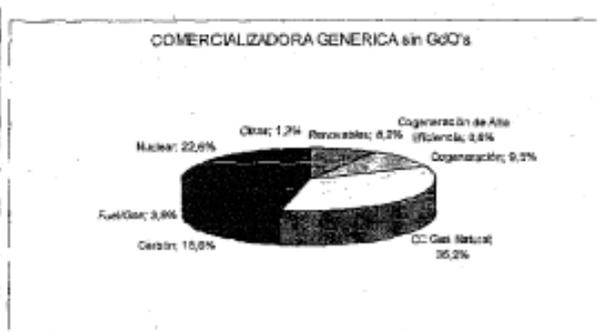
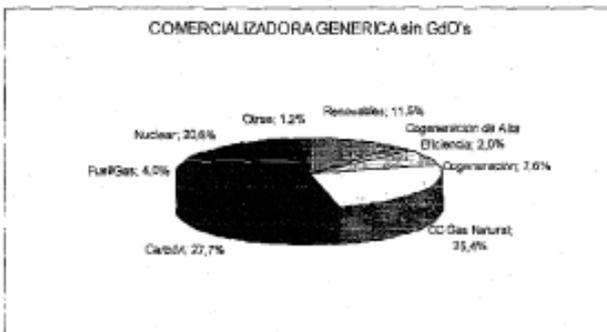
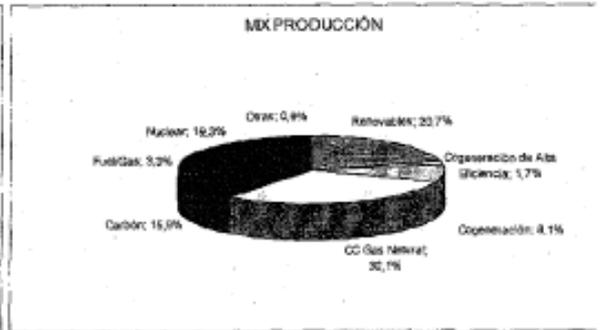
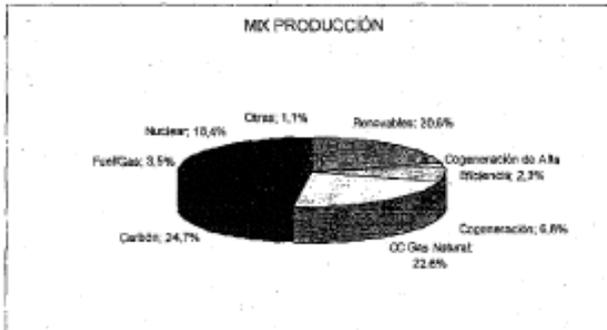
These data, i.e. the annual energy mix produced by the entire electricity system and the 'generic' marketing thereof, are shown in the tables and graphs for 2007 and 2008 set out below. Annex 4 to this report shows the results of free marketing.

2007

	PRODUCTIO N MIX	GENERIC POWER PLANT MIX
<b>ENERGY MIX</b>		
	%	%
Renewable	20,6%	11,5%
High-efficiency Cogeneration	2,3%	2,0%
Cogeneration	6,8%	7,6%
CC Natural Gas	22,6%	25,4%
Carbon	24,7%	27,7%
Fuel/Gas	3,5%	4,0%
Nuclear	18,4%	20,6%
Other	1,1%	1,2%
<b>CARBON DIOXIDE EMISSIONS</b>		
	0,40	0,45
Kg of carbon dioxide per kWh	D	E
<b>HIGHLY ACTIVE RADIOACTIVE WASTE</b>		
	0,54	0,60
Milligrams per KWh	D	E

2008

	PRODUCTION MIX	GENERIC POWER PLANT MIX
<b>ENERGY MIX</b>		
	%	%
Renewable	20,7%	8,2%
High-efficiency Cogeneration	1,7%	0,3%
Cogeneration	8,1%	9,5%
CC Natural Gas	30,1%	35,2%
Carbon	15,9%	18,6%
Fuel/Gas	3,3%	3,9%
Nuclear	19,3%	22,6%
Other	0,9%	1,2%
<b>CARBON DIOXIDE EMISSIONS</b>		
	0,39 D	*
Kg of carbon dioxide per kWh		*
<b>HIGHLY ACTIVE RADIOACTIVE WASTE</b>		
	0,42 D	*
Milligrams per KWh		*



**Image:**

PRODUCTION MIX

GENERIC PRODUCER WITHOUT GUARANTEES OF ORIGIN

Carbon

Fuel/Gas

Nuclear

Others

Renewable

High-efficiency cogeneration

Cogeneration

CC Natural Gas

On the other hand, Order ITC/1522/2007 of 24 May 2007 establishes that producers in whose name guarantees of origin have been issued must provide the National Energy Commission with a report of any revenues received and a plan of these revenues will be used.

From the information received, we have concluded that producers have not received revenues as a result of conveying guarantees of origin. In addition, most producers did not report to the CNE. Therefore, a sample of these two categories is to be included in the next Inspection Plan in order to determine the veracity of the information and, in other cases, the reasons why the CNE has not been informed so far.

Regarding another aspect, Article 15.2 of Order ITC 1522/2007 of 24 May 2007 states that the NEC must inform the Ministry of Industry, Tourism and Commerce every two years of the extent of compliance with the national indicative targets for renewable energy sources.

This mandate is in line with Article 21 of Royal Decree 661/2007 of 25 May 2007 regulating the production of special rate electrical energy. It institutes a reporting system for compliance with the power objective for each technology managed by the NEC through its web page to demonstrate the total power for each technology at all times.

This is permanently recorded in the Administrative Register of Power Plants under the special rate system together with the degree of progress in reaching the power

objectives, the monthly evolution, and the estimated term for compliance with the corresponding objective.

The NEC has set up this system and updates it monthly. The information currently published on line regarding all of the above aspects corresponds to the billing information reported for the energy generated until April 2009. The table below demonstrates how compliance with the wind power objective has almost been reached, in addition to that of the solar photovoltaic energy in 2008 which was already reported to the

Result for month <i>n</i> /year		4	2009						
	PE <sub>n</sub> (MW) (1)	PO (MW)	G <sub>n</sub> (%) (2)	V(MW/month)	N85( <i>n</i> <sup>o</sup> months) (3)	N100 ( <i>n</i> <sup>o</sup> months) (4)	Pi <i>n</i>	Pi <i>n</i> -12	
Cogeneration	6.433	9.215	70%	35	38	7B	- 6.159	&Q62	
Solar PV *	4.614	371	1244%	299	SUPERADO	SUPERADO	3.258	1.022	
Solar thermoelectric									
Wind power	11	500	2%	*		*	11	-	
Wind power (DT7«)	16.619	20.155	82%	135	4	26	15JBS	14999	
Hydraulic	0	2.000	0%			*			
	1,357	2.400	57%	4	168	257	1.289	1.308	
Biomass									
( <i>a6 y b8</i> ) Biomass	417	1.317	3294	2	418	535	396	396	
	165	250	66«	0	-		157	163	
( <i>b7</i> ) Solid Urban Waste	269	350	77%	0	-	-	269	269	

Ministry of Industry, Tourism and Commerce.

\*Note: Once the power objective value is reached in this technology, the equivalent power (EP) is considered to have been reached according to the plant rate for the last nine months, which may differ from the actual rate of current growth.

On the other hand, Royal Decree-Law 6/2009 of 30 April 2009 which provides certain measures for the energy sector and approves the rates subsidy, introduces in its Article 4 the remuneration pre-selection register for special rate power plants. This mechanism attempts to provide greater security to new projects in respect of collecting the current economic incentives and thereby avoiding the uncertainties of Article 22.1 of Royal Decree 661/2007 of 25 May 2007 that forced them to remain permanently registered in the Administrative Production Register under the special rates system before the deadline that the Secretary of State for Energy was supposed to establish once 85 percent of the objectives for a certain technology had been reached.

Finally, it is of note that Directive 2009/28/EC on the development of renewable energies consolidates the principle of subsidiarity of Member States so that they can select their own support systems and at the same time promulgate a guarantee of origin system providing electricity consumers with transparency. This is why the trade in guarantees is contemplated as compatible with the support systems (analogous to that currently established in Spain). Likewise, the Directive incorporates some cooperation mechanisms to make compliance with the objectives assigned to States for 2020 possible. Notwithstanding the above, the Directive does not allow guarantees to be exported; to do so it will be necessary to amend the Spanish legislation that permits this in exchange for waiving the premiums for power plants working under the special rates system.

APROBADO EN CONSEJO  
DE ADMINISTRACION

DE.....2 julio 2009.....

MADRID.....3 julio 2009.....

(LA SECRETARIA DEL CONSEJO  
DE ADMINISTRACION)

APPROVED BY THE  
BOARD OF DIRECTORS  
2 July 2009  
MADRID 3 July 2009  
(SECRETARY OF THE BOARD  
OF DIRECTORS)