

Single Electricity Market

2010 All-Island Fuel Mix Disclosure

Information Note

15 July 2011

SEM-11-057

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1 Introduction

1.1 Purpose

The purpose of this paper is to set out the 2010 calendar year fuel-mix and CO₂ emissions figures for suppliers operating in the SEM. The disclosures are based on 2010 calendar year data and must be on bills no later than two months from the publication of this paper.

1.2 Background Information

The fuel-mix of suppliers in the SEM is currently calculated as required by Article 3(9) of Directive 2009/72/EC. In addition, the provision of information regarding the environmental impact of electricity produced from that fuel-mix is also required.

The methodology used to calculate the fuel-mix disclosure figures for 2010 can be found in the SEM Committee¹ Decision Paper *Interim Arrangements: Fuel-Mix Disclosure in the SEM* ([SEM-09-081](#)). This is the same methodology used to calculate the 2008 and 2009 fuel-mix disclosures.

¹ The SEM Committee is a Committee of the CER, the UR and an independent member which, on behalf of the Regulatory Authorities, takes decisions on SEM matters.

2 Fuel-Mix and CO₂ Emissions Disclosure 2010

In section 2.3 below each supplier's fuel-mix figures are listed by fuel type for 2010. These figures derive from the methodology described in SEM-09-081. The all-island² fuel-mix is also indicated for comparison. In section 2.4, the tonnes of CO₂ per MWh of electricity supplied are given for each supplier as well as an overall figure representative of the all-island electricity market.

2.1 Presentation of Information

The fuel-mix information should be presented on bills in accordance with SEM/09/081. A template for this purpose is reproduced in the Appendix of this paper. In particular the Regulatory Authorities would like to remind suppliers of the following:

- Where fuel-mix information is on the back of bills reference must be made to it on the front of the bill.
- While radioactive waste information is required by the Directive this figure is 0.000t/MWh for all suppliers in 2010 and therefore need not be included with the 2010 fuel-mix disclosure information on bills.
- To ensure consistency across suppliers, percentages should be rounded to one decimal place.
- CO₂ information should be given in the units tonnes of CO₂ per MWh (t/MWh)
- Where separate products associated with a particular fuel-mix are offered to certain customers, all the supplier's customers should receive information regarding the fuel-mix associated with their electricity (not simply the supplier's average fuel-mix) in accordance with SEM/09/081.

The 2010 fuel-mix information must be on all bills within two months of the publication of this paper.

² 'All-island fuel-mix' refers to the combined mix of electricity supplied in Ireland and Northern Ireland, including imports and generation operating outside the SEM in Ireland and Northern Ireland.

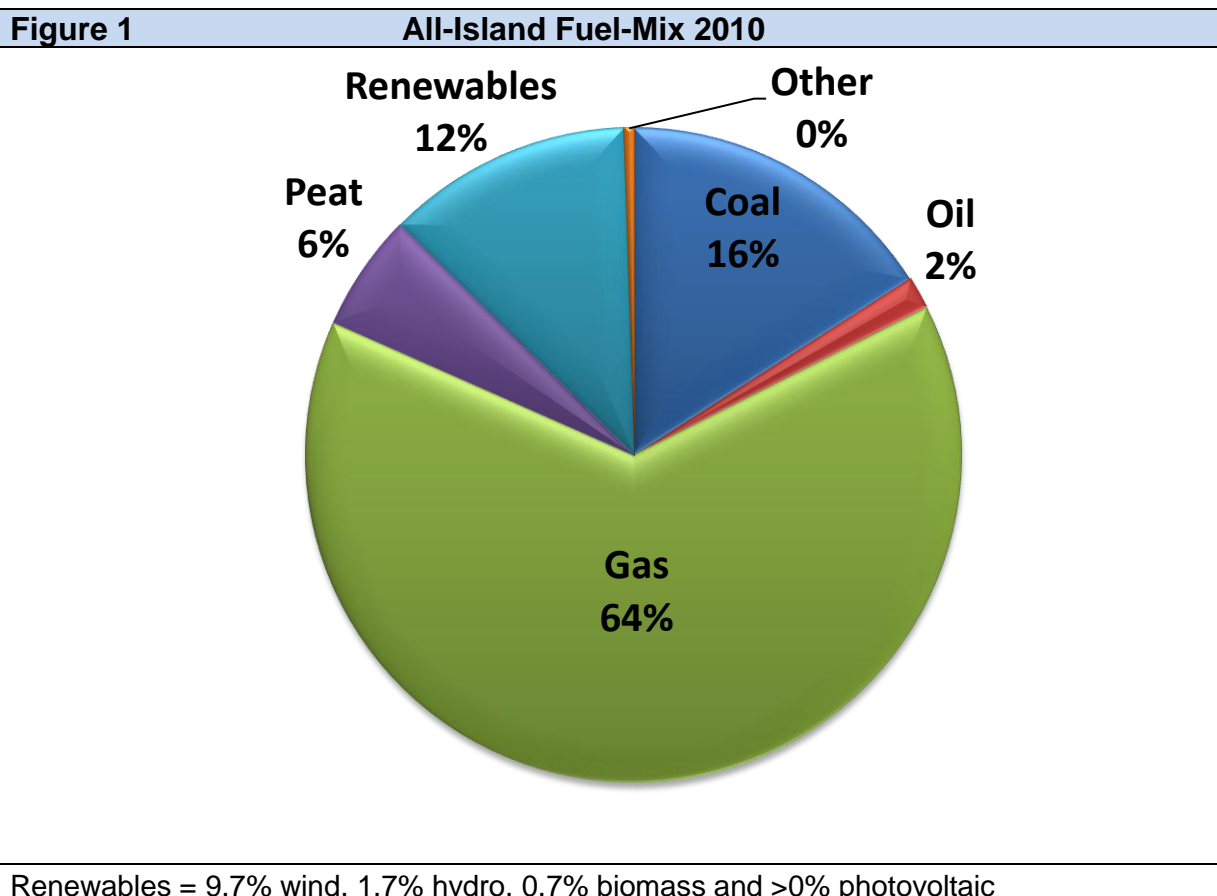
2.2 All-Island Fuel-Mix 2010

As can be seen from the graphs below, based on the methodology set out in SEM/09/081 in 2010 gas made the largest contribution to the island's electricity supply at 64% (up from 62% in 2009) while renewable energy made up 12% of the total [Figure 1].

Relative to 2009, renewables contributed less to the fuel mix in 2010. There was a decline in both wind and hydro-power generation despite an increase in wind's installed capacity. This was due to wind speeds and rainfall in 2010 being below normal across the island³.

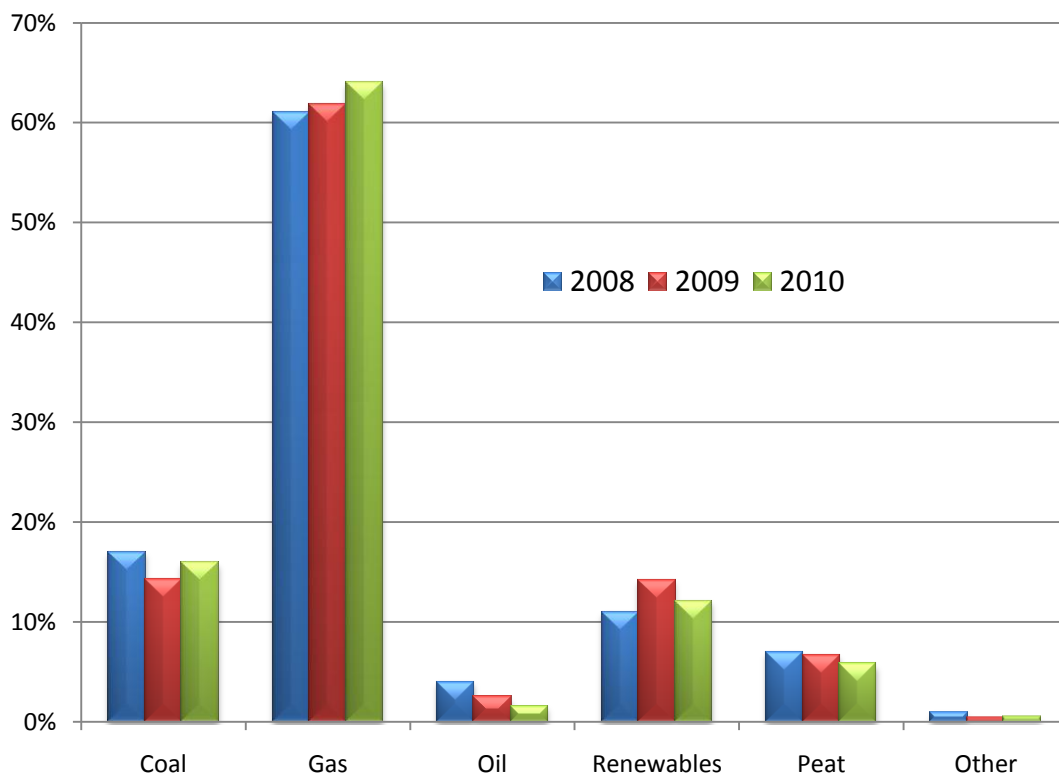
Peat and oil's share of the fuel mix declined again in 2010. While coal increased relative to 2009 it is still below 2008 levels [Figure 2].

The average carbon dioxide emissions per MWh of electricity rose approximately 3% (0.015t/MWh) in 2010 for the island [Table 1]. This was mainly a result of the decrease in renewable generation and the larger share of coal in the final mix.



³ http://www.met.ie/climate/monthly_summaries/year10sum.pdf and <http://www.metoffice.gov.uk/climate/uk/2010/annual.html>

Figure 2 Fuel-Mix Comparison 2008-2010



	2008	2009	2010
Coal	17%	14%	16%
Gas	61%	62%	64%
Oil	4%	3%	2%
Renewables	11%	14%	12%
Peat	7%	7%	6%
Other	1%	0%	0%

Table 1 Average CO₂ Emissions (t/MWh)

2008	0.533
2009	0.504
2010	0.519

2.3 Suppliers' Fuel-Mix by Fuel Type in 2010⁴

<u>Supplier</u>	<u>Coal</u>	<u>Oil</u>	<u>Gas</u>	<u>Peat</u>	<u>Renewable</u>	<u>Other</u>
Airtricity (All-island)	11.0%	1.1%	44.1%	4.0%	39.5%	0.3%
Airtricity (Northern Ireland)	0.9%	0.1%	3.5%	0.3%	95.2%	0.0%
Airtricity (Ireland)	13.9%	1.4%	55.6%	5.0%	23.8%	0.3%
Bord Gáis Energy (All-island)	15.9%	1.6%	64.3%	5.7%	12.0%	0.5%
Firmus Energy (Northern Ireland)	15.9%	1.6%	64.5%	5.8%	11.7%	0.5%
Bord Gáis Energy (Ireland)	15.9%	1.6%	64.3%	5.7%	12.0%	0.5%
Viridian (All-island)	16.1%	1.6%	64.5%	5.8%	11.5%	0.5%
Viridian (Northern Ireland)	15.4%	1.5%	61.4%	5.6%	15.7%	0.4%
Energia (Ireland)	16.4%	1.6%	65.5%	5.9%	10.1%	0.5%
ESB Electric Ireland⁵ (All-island)	16.4%	1.6%	65.7%	5.9%	9.9%	0.5%
ESB Electric Ireland (Ireland)	16.3%	1.6%	65.5%	5.9%	10.2%	0.5%
ESB Customer Supply	16.0%	1.6%	64.4%	5.8%	11.7%	0.5%
ESB IE (All-island)	17.0%	1.7%	67.8%	6.1%	6.9%	0.5%
ESB IE (Northern Ireland)	17.0%	1.7%	67.8%	6.1%	6.9%	0.5%
ESB IE (Ireland)	17.0%	1.7%	67.8%	6.1%	6.9%	0.5%
NIE (Northern Ireland)	17.3%	1.7%	69.0%	6.3%	5.2%	0.5%
Vayu (Ireland)	16.8%	1.7%	68.1%	6.1%	6.9%	0.4%
All Island	16.0%	1.6%	64.1%	5.8%	12.1%	0.4%

⁴ Where suppliers operate on an all-island basis their combined Irish and Northern Irish fuel-mix is listed along with the fuel-mixes associated with their Irish and Northern Irish electricity supply licences.

⁵ Combination of ESB CS and ESB IE to reflect their rebranding as Electric Ireland.

2.4 Suppliers' CO₂ Emissions for 2010

Suppliers	tCO ₂ /MWh
All Island Average	0.519
Airtricity (All-island)	0.357
Airtricity (Northern Ireland)	0.029
Airtricity (Ireland)	0.450
Bord Gáis Energy (All-island)	0.519
Firmus Energy (Northern Ireland)	0.520
Bord Gáis Energy (Ireland)	0.519
ESB Customer Supply	0.522
ESB IE (All-island)	0.550
ESB IE (Northern Ireland)	0.551
ESB IE (Ireland)	0.550
NIE	0.560
Vayu	0.549
Viridian (All-island)	0.523
Viridian (Northern Ireland)	0.498
Energia (Ireland)	0.532

Appendix: Bill Layout

Default Presentation of Information⁶

Supplier Z Disclosure Label Applicable Period: January 2010 to December 2010		
Electricity supplied has been sourced from the following fuels:	% of total	
	Electricity Supplied by Supplier Z	Average for All Island Market (for comparison)
Coal	X %	X %
Natural Gas	X %	X %
Renewable	X %	X %
Peat	X %	X %
Oil	X %	X %
Other	X %	X %
Total	100 %	100 %
Environmental Impact		
CO2 Emissions	X t/MWh	X t/MWh
For more information on the environmental impact of your electricity supply visit www.SupplierZ.ie or call 00XXX X XXX XXXX		

⁶ Please refer to SEM-09-081 for further detail on presentation requirements.