

Single Electricity Market

2009 All-Island Fuel Mix Disclosure

Information Note

20 August 2010

SEM-10-056

Table of contents

1	Introduction.....	3
1.1	Purpose	3
1.2	Background information	3
2	Fuel-Mix and CO ₂ Emissions Disclosure 2009	4
2.1	Presentation of Information.....	4
2.2	All-Island Fuel-Mix 2009	5
2.3	Suppliers' Fuel-Mix by Fuel Type in 2009	7
2.4	Suppliers' CO ₂ Emissions for 2009	8
	Appendix: Bill Layout.....	9

1 Introduction

1.1 Purpose

The purpose of this paper is to set out the 2009 calendar year fuel-mix and CO₂ emissions disclosures for suppliers operating in the SEM. The disclosures are based on 2009 calendar year data and will take effect no later than two months from this direction.

1.2 Background information

The fuel-mix of suppliers in the SEM is currently calculated as required by Article 3.6 of Directive 2003/54/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 2009 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 fuel-mix disclosure.

¹ The SEM Committee is a Committee of both CER and NIAUR which, on behalf of the Regulatory Authorities, takes decisions on SEM matters.

2 Fuel-Mix and CO₂ Emissions Disclosure 2009

In section 2.3 below each supplier's fuel-mix figures are listed by fuel type for 2009. These figures derive from the methodology described in SEM-09-081. The All-island² fuel-mix is also indicated for comparison. Note that each percentage figure is rounded to one decimal place and so figures may not sum to 100. 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. The table template 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 2009 and therefore need not be included with the 2009 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 2009 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.

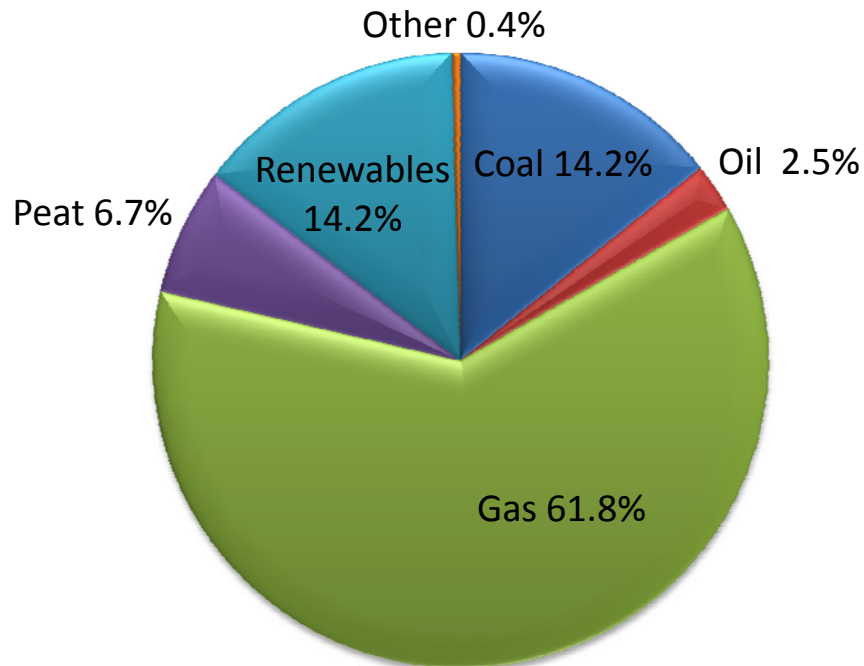
2.2 All-Island Fuel-Mix 2009

As can be seen from the graphs below, based on the methodology set out in SEM/09/081 in 2009 gas made the largest contribution to the island's electricity supply at 62% while renewable energy made up 14% of the total **[Figure 1]**.³

Comparing 2009 with 2008, gas, peat and renewables all contributed more to the total than in 2008 at the expense of oil and coal **[Figure 2]**.

The average carbon dioxide emissions per MWh of electricity fell approximately 5% (0.029t/MWh) in 2009 for the island **[Table 1]**. This was mainly a result of the increase in renewable generation and the larger share of gas in the final mix at the expense of the higher carbon fuels such as oil and coal.

Figure 1 All-Island Fuel-Mix 2009



Renewables = 11% wind, 2.6% hydro, 0.6% biomass and >0% photovoltaic

³ These figures include Imports from Great Britain (GB). Such imports are assumed to be the GB residual fuel-mix which is calculated by the Department of Energy and Climate Change and refers to energy that has not been claimed by GB suppliers for their fuel-mix disclosure. This GB residual-mix is added to the SEM pool-mix. Accordingly it should be noted that Irish and Northern Irish suppliers have this energy assigned to their fuel-mix by virtue of the fact that they purchase energy from the SEM pool.

Figure 2 Fuel-Mix Comparison 2008-2009 (Percentage)

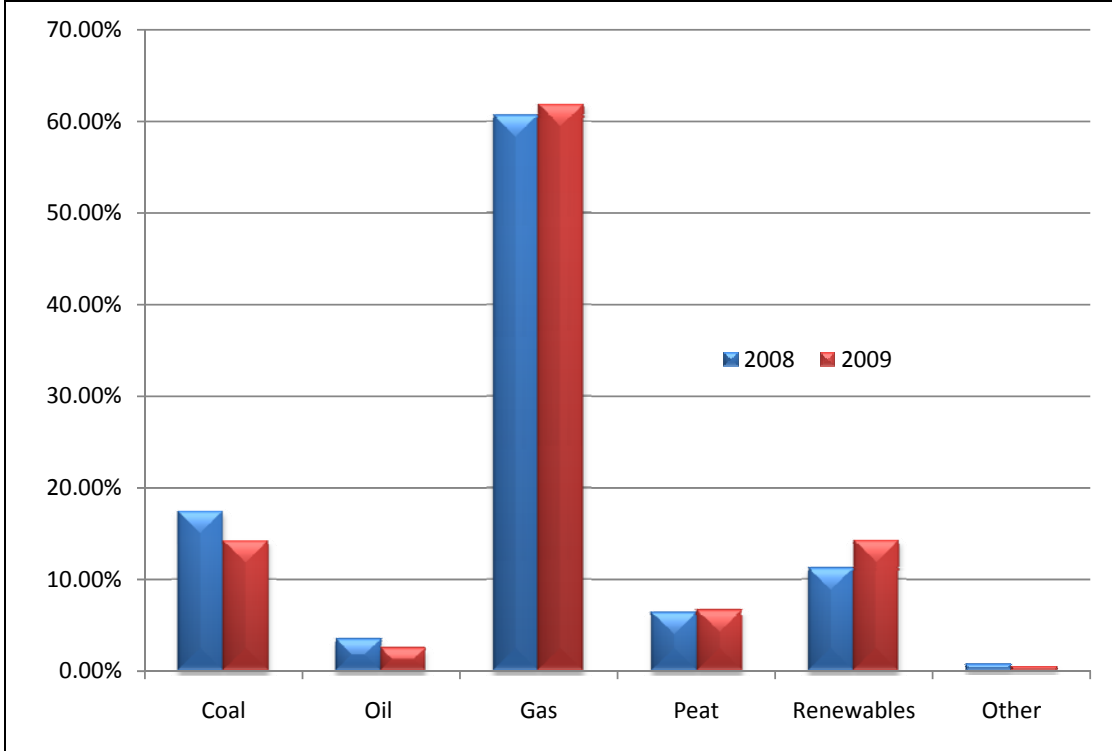


Table 1 Average CO₂ Emissions (t/MWh)

2008	0.533
2009	0.504

2.3 Suppliers' Fuel-Mix by Fuel Type in 2009⁴

<u>Supplier</u>	<u>Gas</u>	<u>Coal</u>	<u>Peat</u>	<u>Renewable</u>	<u>Oil</u>	<u>Other</u>
Airtricity (All-island)	29.1%	6.7%	3.2%	59.6%	1.2%	0.2%
Airtricity (Northern Ireland)	44.1%	10.2%	4.8%	38.8%	1.8%	0.3%
Airtricity (Ireland)	24.8%	5.7%	2.7%	65.6%	1.0%	0.2%
Bord Gáis Energy (All-island)	66.3%	15.3%	7.2%	8.0%	2.7%	0.5%
Bord Gáis Energy (Northern Ireland)	66.6%	15.4%	7.2%	7.5%	2.7%	0.5%
Bord Gáis Energy (Ireland)	66.3%	15.3%	7.2%	8.0%	2.7%	0.5%
Dan Twomey Waterpower	69.8%	16.1%	7.6%	3.1%	2.9%	0.5%
Viridian (All-island)	63.1%	14.6%	6.9%	12.4%	2.6%	0.5%
Viridian (Northern Ireland)	59.9%	13.8%	6.5%	16.9%	2.5%	0.4%
Energia (Ireland)	64.4%	14.8%	7.0%	10.7%	2.6%	0.5%
ESB Customer Supply	63.8%	14.7%	6.9%	11.6%	2.6%	0.5%
ESB IE (All-island)	66.9%	15.4%	7.3%	7.1%	2.7%	0.5%
ESB IE (Northern Ireland)	68.6%	15.8%	7.5%	4.8%	2.8%	0.5%
ESB IE (Ireland)	66.3%	15.3%	7.2%	7.9%	2.7%	0.5%
NIE	68.6%	15.8%	7.4%	4.8%	2.8%	0.5%
Quinn Energy Supply	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Quinn Wind Farm	51.5%	11.9%	5.6%	28.5%	2.1%	0.4%
Vayu	69.5%	15.7%	7.4%	4.1%	2.8%	0.5%
All Island	61.8%	14.2%	6.7%	14.2%	2.5%	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.

2.4 Suppliers' CO₂ Emissions for 2009

Suppliers	tCO ₂ /MWh
All Island Average	0.504
Airtricity (All-island)	0.237
Airtricity (Northern Ireland)	0.360
Airtricity (Ireland)	0.203
Bord Gáis Energy (All-island)	0.541
Bord Gáis Energy (Northern Ireland)	0.544
Bord Gáis Energy (Ireland)	0.541
Dan Twomey Waterpower	0.570
ESB Customer Supply	0.520
ESB IE (All-island)	0.547
ESB IE (Northern Ireland)	0.560
ESB IE (Ireland)	0.542
NIE	0.560
Quinn Energy Supply	0.000
Quinn Wind Farm	0.421
Vayu	0.562
Viridian (All-island)	0.516
Viridian (Northern Ireland)	0.489
Energia (Ireland)	0.526
All Island	0.504

Appendix: Bill Layout

Default Presentation of Information⁵

Supplier Z Disclosure Label Applicable Period: January 2009 to December 2009		
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		

⁵ Please refer to SEM-09-081 for further detail on the presentation requirements.