Fuel Mix and CO₂ Emission Factors Disclosure 2009

Under Article 3(6) of the Electricity Directive (2003/54/EC), the Utility Regulator is required to ensure that all suppliers provide reliable information on bills and promotional materials sent to customers regarding the contribution of each energy source to their fuel mix and the associated environmental impacts over the relevant year.

This document sets out the 2009 fuel-mixes and CO₂ emissions factors for suppliers licensed in N Ireland and operating in the Single Electricity Market (SEM) as calculated in accordance with <u>SEM-09-081</u> Interim Arrangements: Fuel Mix Disclosure in the SEM.

Related Documents:

- <u>SEM-10-004</u> 2008 All-Island Fuel Mix Disclosure
- <u>CER/10/022</u> Fuel Mix and CO2 Emission Factors Disclosure 2008
- <u>SEM-09-081</u> Interim Arrangements: Fuel Mix Disclosure in the SEM. Decision paper on the methodology and principals for the calculation of fuel mix disclosure in the SEM.

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In figure 1 below each supplier's fuel-mix figures are listed by fuel type for 2009. The all-island¹ 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 figure 2, the tonnes of CO_2 per MWh of electricity supplied are given for each supplier as well as an overall figure representative of the All-island electricity market.

¹ 'All-island fuel-mix' refers to the combined mix of electricity supplied in Northern Ireland and Ireland, including imports and generation operating outside the SEM in Northern Ireland and Ireland.

Supplier ²	Gas	Coal	Peat	Renewables	Oil	Other
Airtricity (All-island)	29.1%	6.7%	3.2%	59.6%	1.2%	0.2%
Airtricity (N Ireland)	44.1%	10.2%	4.8%	38.8%	1.8%	0.3%
Bord Gáis Energy (All-island)	66.3%	15.3%	7.2%	8.0%	2.7%	0.5%
Bord Gáis Energy (NIreland)	66.6%	15.4%	7.2%	7.5%	2.7%	0.5%
Viridian (All-island)	63.1%	14.6%	6.9%	12.4%	2.6%	0.5%
Viridian (N Ireland)	59.9%	13.8%	6.5%	16.9%	2.5%	0.4%
ESB IE (All-island)	66.9%	15.4%	7.3%	7.1%	2.7%	0.5%
ESB IE (N Ireland)	68.6%	15.8%	7.5%	4.8%	2.8%	0.5%
NIE	68.6%	15.8%	7.4%	4.8%	2.8%	0.5%
Quinn (All-island)	29.1%	6.7%	3.2%	59.7%	1.2%	0.2%
Quinn (N Ireland)	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
All Island	61.8%	14.2%	6.7%	14.2%	2.5%	0.4%

Figure 1: Suppliers' Fuel-Mix by Fuel Type in 2009

Figure 2. Suppliers' CO2 Emissions for 2009

Supplier Emissions	tCO2/MWh
Airtricity (All- island)	0.237
Airtricity NI	0.360
Bord Gais (All-island)	0.541
Bord Gais NI	0.544
ESB IE (All-island)	0.547
ESB IE NI	0.560
Energia (All-island)	0.516
Energia NI	0.489
NIE	0.559
Quinn (All-island)	0.237
Quinn NI	0.000
All Island	0.504

² Where suppliers operate on an all-island basis both their fuel-mix associated with their Northern Irish electricity supply licence and their combined Irish and Northern Irish fuel-mix is listed

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 for convenience. In particular the Utility Regulator 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.
- 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.

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; this was mostly wind.

The average carbon dioxide emissions per MWh of electricity fell approximately 5% (0.029t/MWh) in 2009 for the island. This can be considered to be 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.







Appendix: Bill Layout

Default Presentation of Information³

Supplier Z Disclosure Label Applicable Period: January 2009 to December 2009						
Electricity supplied has been	% of total					
sourced from the following fuels:		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/MV	/h	X t/MWh			
For more information on the environmental impact of your electricity supply visit www.SupplierZ.co.uk or call 00XXX X XXX XXXX						

³ Please refer to SEM-09-081 for further detail on the presentation requirements.