



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

Fuel Mix Disclosure and CO₂ Emissions 2010

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Commission for Energy Regulation

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Abstract:

Under Regulation 25 of S.I. No. 60 of 2005, which transposes Article 3(6) of the Electricity Directive (2003/54/EC), the Commission 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 the overall fuel mix of the supplier concerned and the associated environmental impacts in the preceding year.

This document sets out the 2010 fuel-mixes and CO₂ emissions factors for suppliers licensed in Ireland and operating in the Single Electricity Market (SEM) as calculated in accordance with [SEM-09-081](#) *Interim Arrangements: Fuel Mix Disclosure in the SEM*.

Target Audience:

Electricity generators, suppliers and customers.

Related Documents:

- [SEM-10-004](#) 2008 All-Island Fuel Mix Disclosure
- [CER/10/022](#) Fuel Mix and CO₂ Emission Factors Disclosure 2008
- [SEM-10-056](#) 2009 All-Island Fuel Mix Disclosure
- [CER/10/140](#) Fuel Mix and CO₂ Emission Factors Disclosure 2009
- [SEM-09-081](#) *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.

For further information on this paper, please contact **Robert O'Rourke** (rorourke@cer.ie) at the Commission.

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1 Introduction

1.1 Purpose of this Paper

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

1.2 Background Information

The fuel-mix of suppliers in Ireland is calculated as required by Regulation 25 of S.I. No. 60 of 2005 which transposes 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 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.

Fuel-mix disclosure has been calculated in Ireland since 2005. However, the methodology used for the years 2005, 2006 and 2007 is no longer applicable since the introduction of the SEM.

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

2 Fuel-Mix & 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 to this paper. In particular the Commission 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 SI No 60 of 2005 this figure is 0.000 t/MWh for all suppliers in 2010 and therefore need not be included with the 2010 fuel-mix disclosure information.
- 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.

2.2 All-Island Fuel-Mix 2010

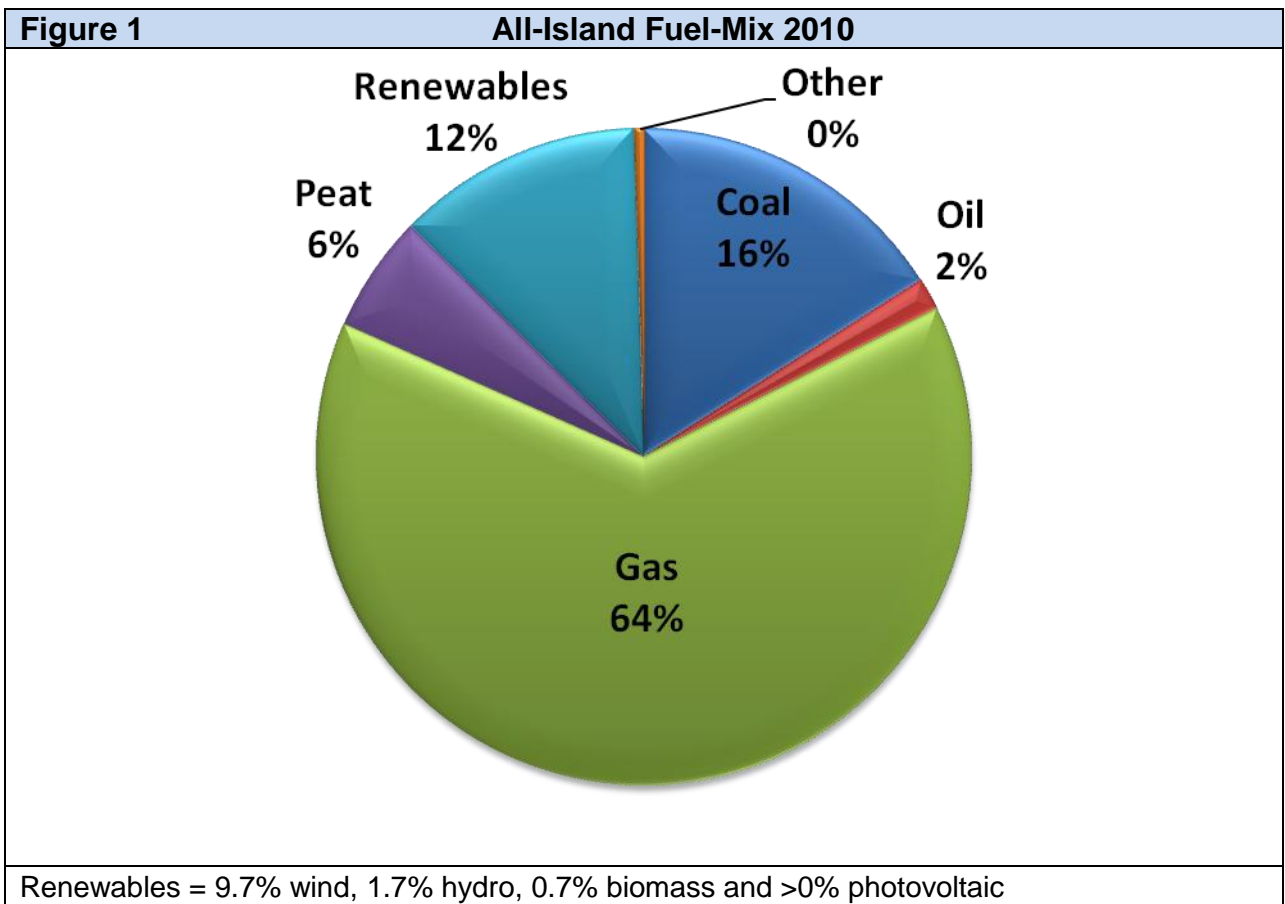
As can be seen from the graphs below, based on the methodology set out in SEM/09/081 in 2010 gas made the largest contribution to the island's electricity supply at 64% (up from 62% in 2009) while renewable energy made up 12% of the total **[Figure 1]**.

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.

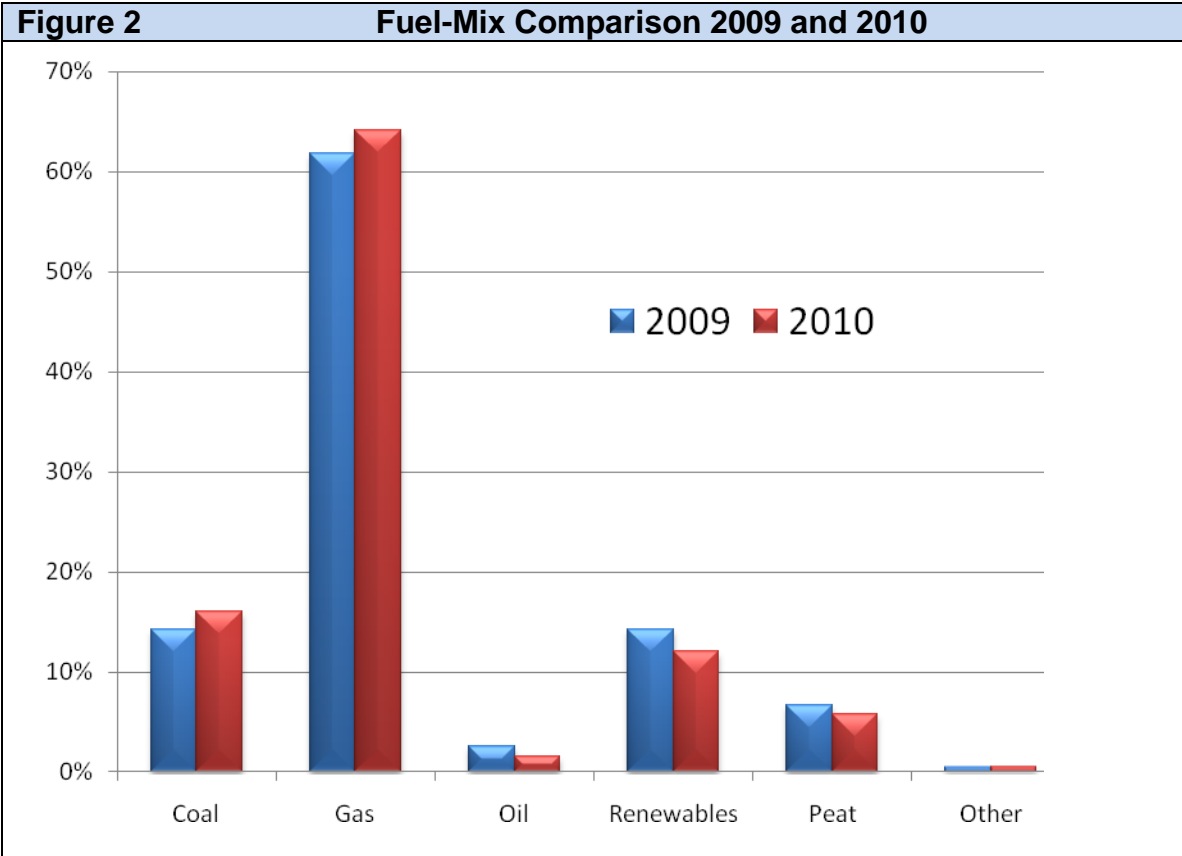
Relative to 2009, renewables contributed less to the fuel mix in 2010 [Figure 2]. There was a decline in both wind and hydro-power generation despite an increase in wind's installed capacity. This was due to wind speeds and rainfall in 2010 being below normal across the island³.

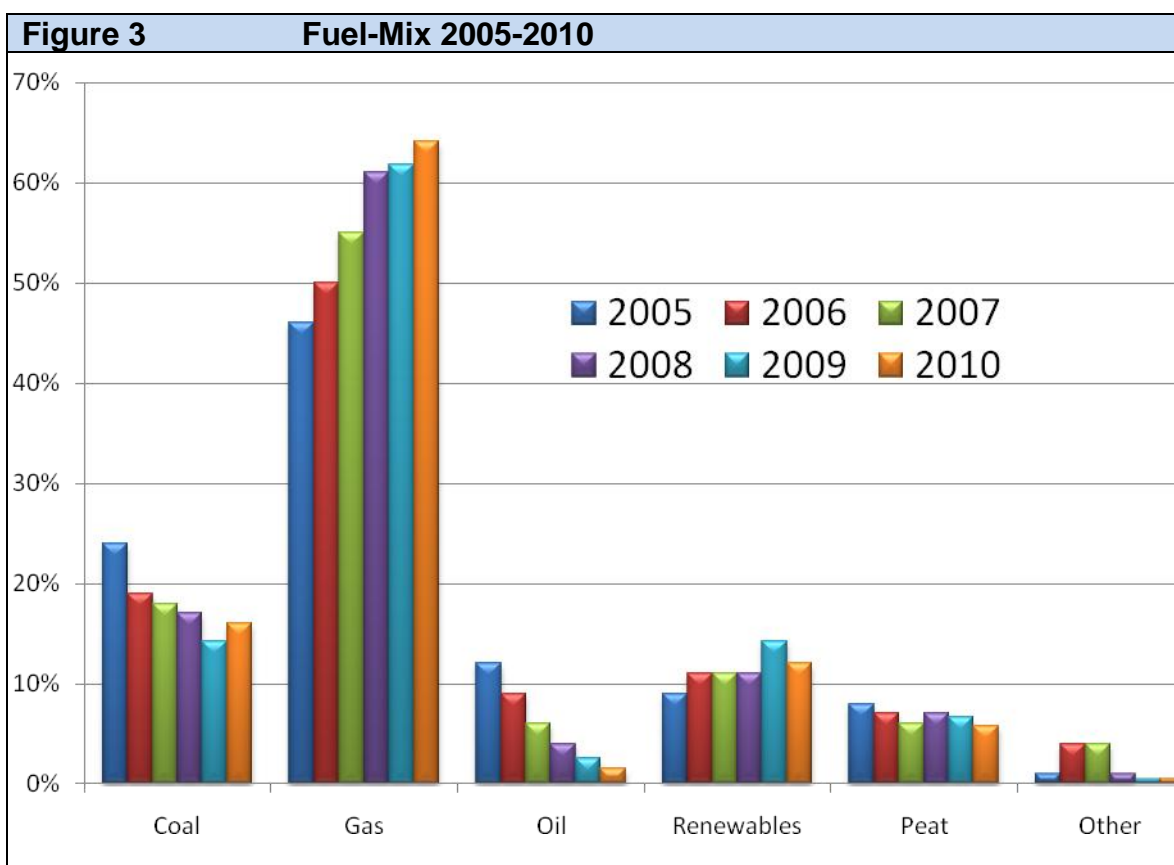
Peat and oil's share of the fuel mix declined again in 2010. While coal increased relative to 2009 it is still below levels seen in previous years. The trend evident since 2005 is confirmed this year. Gas has increased each year, while the share of oil and peat has consistently fallen since 2005 [Figure 3].

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 relatively 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>





	2005	2006	2007	2008	2009	2010
Coal	24%	19%	18%	17%	14%	16%
Gas	46%	50%	55%	61%	62%	64%
Oil	12%	9%	6%	4%	3%	2%
Renewables	9%	11%	11%	11%	14%	12%
Peat	8%	7%	6%	7%	7%	6%
Other	1%	4%	4%	1%	0%	0%

Numbers may not sum to 100% due to rounding.

Please note figures from 2005, 2006 and 2007 relate to Ireland only and calculations are based on pre-SEM methodology.

Figures for 2008, 2009 and 2010 relate to Ireland and Northern Ireland and are based on the Interim Arrangements methodology referenced in this paper.

“Other” for the years 2005, 2006 and 2007 relate to CHP. CHP is not counted as a fuel source from 2008 on.

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 (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%
Bord Gáis Energy (Ireland)	15.9%	1.6%	64.3%	5.7%	12.0%	0.5%
Energia (All-island)	16.1%	1.6%	64.5%	5.8%	11.5%	0.5%
Energia (Ireland)	16.4%	1.6%	65.5%	5.9%	10.1%	0.5%
ESB Electric Ireland ⁵ (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 (Ireland)	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 (Ireland)	17.0%	1.7%	67.8%	6.1%	6.9%	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 fuel mix is listed along with the fuel-mix associated with their 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	tCO₂/MWh
All Island Average	0.519
Airtricity (All-island)	0.357
Airtricity (Ireland)	0.450
Bord Gáis Energy (All-island)	0.519
Bord Gáis Energy (Ireland)	0.519
Energia (All-island)	0.523
Energia (Ireland)	0.532
ESB Electric Ireland (All-island)	0.532
ESB Electric Ireland (Ireland)	0.530
ESB Customer Supply	0.522
ESB IE (All-island)	0.550
ESB IE (Ireland)	0.550
Vayu	0.549

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.