



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

Fuel Mix and CO₂ Emission Factors Disclosure 2007

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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 all 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 over the preceding year.

This document sets out the 2007 Fuel Mixes and CO₂ Emissions Factors for electricity suppliers in Ireland as calculated in accordance with the methodology outlined in CER 06/117 and CER 07/215. It also outlines the Fuel Mix and CO₂ Emission Factor relating to electricity supplied on a national basis.

Target Audience:

Electricity generators, suppliers and customers.

Related Documents:

- Previous Fuel Mix Disclosure Decisions.
<http://www.cer.ie/en/renewables-decision-documents.aspx#DisclosureofInformation>
- Disclosure of Information to Final Customers by Suppliers, CER 06/117.
<http://www.cer.ie/en/renewables-decision-documents.aspx?article=0b434865-35a0-451f-a3a7-81bf6bd95263>
- Consultation and Decision paper on the methodology for the calculation of the 2007 Fuel Mix Disclosure figures, CER 07/165 and CER 07/215.
<http://www.cer.ie/en/renewables-decision-documents.aspx?article=51ccf456-a7d5-4193-ad77-d7524c617f9c>

For further information on this paper, please contact **James Mc Sherry** (jmcsherry@cer.ie) at the Commission.

Executive Summary

The fuel mix of suppliers in Ireland is currently calculated in accordance with Regulation 25 of S.I. No. 60 of 2005¹ which transposes Article 3.6 (a) of Directive 2003/54/EC². The European Directive states that “*Member States shall ensure that electricity suppliers specify in or with the bills and in promotional materials made available to final customers, the contribution of each energy source to the overall fuel mix of the supplier over the preceding year*”. In addition, the provision of information regarding the environmental impact of electricity produced from that fuel mix is also required.

This information document is carried out in line with previous CER Fuel mix decisions and in accordance with CER 06/117.

¹ S.I. No. 60 of 2005, European Communities (Internal Market in Electricity) Regulations 2005

² Directive 2003/54/EC of the European Parliament and of the council of June 2003, concerning common rules for the internal market in electricity and repealing Directive 96/92/EC

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1.0 Introduction

1.1 The Commission for Energy Regulation

The Commission for Energy Regulation (“the Commission”) is the independent body responsible for overseeing the regulation of Ireland's electricity and gas sector's. The Commission was initially established and granted regulatory powers over the electricity market under the Electricity Regulation Act, 1999. The enactment of the Gas (Interim) (Regulation) Act, 2002 expanded the Commission's jurisdiction to include regulation of the natural gas market, while the Energy (Miscellaneous Provisions) Act 2006 granted the Commission additional powers in relation to gas and electricity safety. The Electricity Regulation Amendment (SEM) Act 2007 outlined the Commission's functions in relation to the Single Electricity Market (SEM) for the island of Ireland. This market is regulated by the Commission and the Northern Ireland Authority for Utility Regulation (NIAUR). The Commission is working to ensure that consumers benefit from regulation and the introduction of competition in the energy sector.

1.2 Purpose of this Information note

The purpose of this paper is to set out the Fuel Mix and CO₂ Emissions disclosures for suppliers and for Ireland in 2007, as calculated in accordance with CER 06/117 and CER 07/215.

1.3 Background Information

The calculation of the fuel mix in the market prior to the Single Electricity Market (SEM) was based on generation, bilateral trades, top-up, spill, imports, exports and demand for each calendar year, 1st January to 31st December. The detailed methodology, as determined by the Commission, is set out in the decision paper on this matter (CER 06/117). Due to the introduction of the SEM in November of 2007 it was necessary to devise a method to calculate the fuel mix for the last two months of 2007 to allow for the provision of fuel mix figures for that disclosure period. This methodology is set out in the Commission's decision paper, CER 07/215. The fuel mix figures provided in Section 2.2 of this paper have been calculated in accordance with the methods set out in the above two Commission papers.

1.4 Structure of this paper

The 2007 Fuel Mix Disclosure (Table A) is set out in section 2.1 of this paper, which lists supplier's fuel mix figures categorised by fuel type for 2007.

Ireland's overall average fuel mix figures for 2007 are listed in the (Table B) of section 2.1.

The CO₂ emissions factors (kg CO₂/MWh) for individual suppliers and the Irish electricity supply industry are given in section 2.2 (Table C).

2.0 Fuel Mix & CO₂ Emissions Disclosure 2007

In calculating the fuel mix for suppliers it is necessary to take account of Ireland's imports during 2007. The methodology approved by the Commission provides that a combination of the UK and Northern Ireland fuel mixes be used for the purpose of obtaining an accurate calculation of the fuel mix of imports - where these imports are not based on specific contracts with generators. These imports include nuclear, but the total amount of nuclear generated electricity given by these calculations represents only 0.14% of Ireland's overall fuel mix in 2007 and rounds to 0% for each supplier.

In Table A below each supplier's fuel mix figures are listed by fuel type for 2007. Ireland's overall average fuel mix figures for 2007 are also listed by fuel type in Table B. Note that each percentage figure is rounded to the nearest percentage point in Table A and Table B. In Table C, the kilograms of CO₂ per MWh of electricity supplied are given for each supplier as well as an overall figure representative of the Irish electricity market. The overall emissions factors (per supplier) are given by multiplying each fuel's emission factor by the relevant % of that fuel in the supplier's portfolio. The values obtained for each fuel are then aggregated to give the total kg CO₂ emitted per MWh of electricity produced for that supplier.

2.1 Fuel Mix Disclosure for 2007³

Table A. Percentage Supplier Fuel Mix by Fuel Type in 2007

MP Name	CHP	COAL	GAS	RENEWABLE	OIL	PEAT
Airtricity	0%	7%	11%	79%	2%	1%
BGE (Cogen)	13%	30%	36%	5%	10%	6%
BGE (Supply)	3%	18%	52%	16%	6%	5%
CM Power	0%	35%	41%	5%	12%	7%
CH Power	9%	6%	14%	68%	2%	1%
Dan Twomey Waterpower	0%	26%	31%	28%	9%	6%
Energia	1%	8%	84%	5%	1%	1%
ESBIE	0%	5%	90%	2%	2%	1%
Glanbia Supplier	0%	35%	41%	5%	12%	7%
Aughinish Alumina	96%	1%	2%	1%	0%	0%
ESB Customer Supply	5%	26%	41%	9%	9%	10%

³ These figures represent the breakdown of the mix of energy provided by suppliers to their customers but is not necessarily representative of generation such customers may provide themselves from on-site generation.

Table B. Ireland's Overall fuel mix by fuel type in 2007

CHP	COAL	GAS	RENEWABLE	OIL	PEAT
4%	18%	55%	11%	6%	6%

2.2 CO₂ Emission Factors Disclosure for 2007⁴

Table C. CO₂ Emissions factors per supplier for 2007

MP Name	Total kg CO ₂ /MWh
Airtricity	142
BGE (Cogen)	622
BGE (Supply)	512
CM Power	690
CH Power	166
Dan Twomey Waterpower	525
Energia	465
ESBIE	470
Glanbia Supplier	690
Aughinish Alumina	233
ESB Customer Supply	625
IRELAND	538

⁴ These figures represent the CO₂ emissions for the mix of energy provided by suppliers to their customers but is not necessarily representative of generation such customers may provide themselves from on-site generation.