



All-Island Fuel Mix Disclosure and CO2 Emissions 2022

Information Paper

SEM-23-086

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EXECUTIVE SUMMARY

Information Paper

The fuel mix and carbon dioxide (CO₂) emissions disclosure for 2022 provides consumers the recent fuel mix information and environmental impact of the electricity that they buy, compared to the all-island average. The Single Electricity Market (SEM) Committee decision paper [SEM/11/095](#) outlines the calculation methodology and assumptions that have been used to calculate the fuel mix and CO₂ emissions for 2022. It should be noted that the fuel mix of each electricity supplier (outlined in this paper) does not necessarily represent metered generation in Ireland or Northern Ireland, as suppliers may claim the green attributes of renewable electricity generated outside of the SEM through electronic certificates known as Guarantees of Origin (GOs), some of which are imported from other European Economic Area (EEA) Member States¹.

For 2022, the predominant fuels in the final fuel mix were coal, gas, and renewables. Coal has decreased from 2021 but remain high compared to 2020 levels due to more reliance on this fuel type due to the energy crisis. Renewables for 2022 have increased marginally by 1.7% bringing it to 57.6%. A large proportion (53%) of the renewables were made up of imports claimed from outside of the SEM.

In total, on an all-island basis, 17,711,837 GO certificates were imported in 2022, a 2% increase from the previous year.

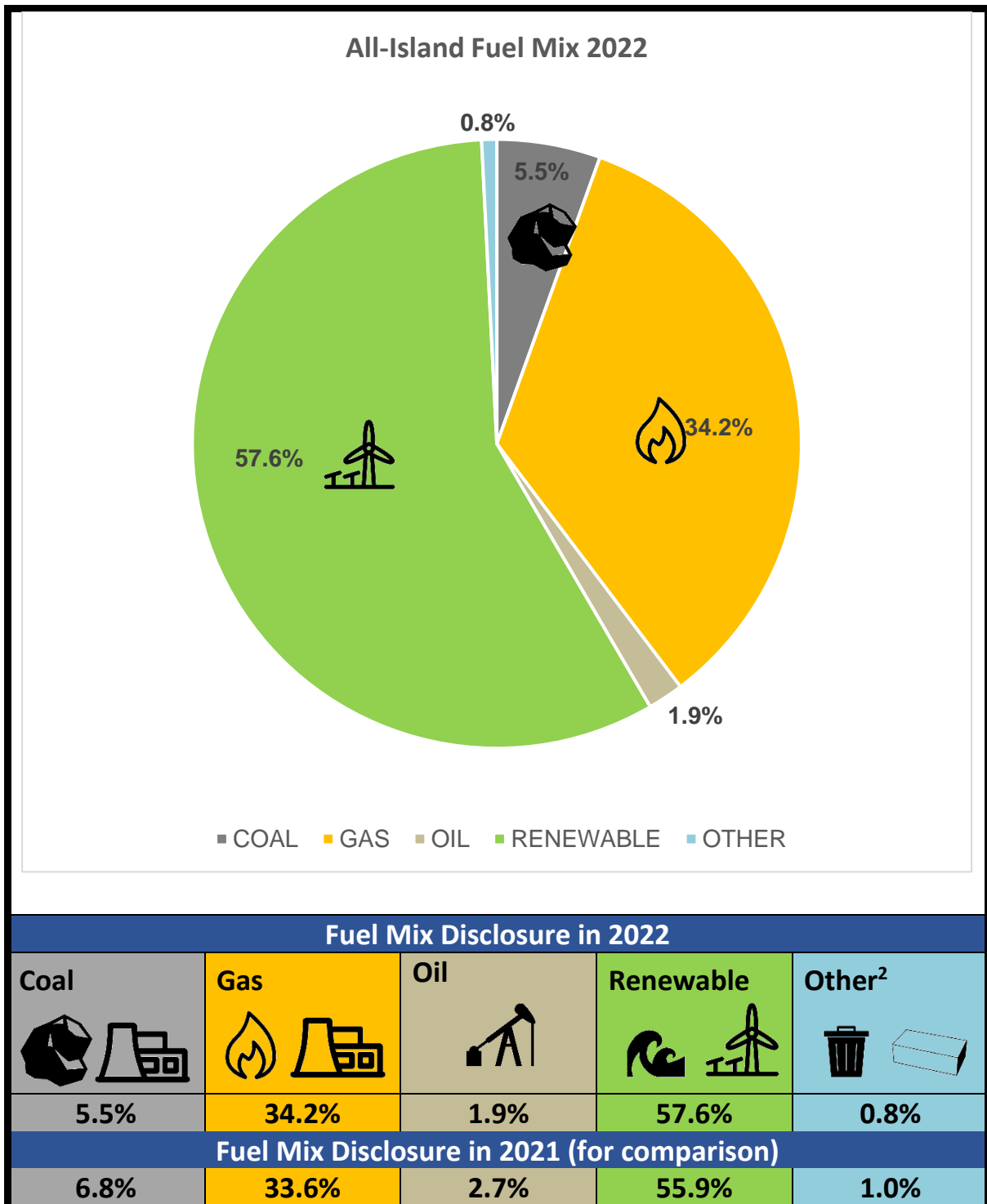
Residual Mix is the energy source mix that is left over once the reliably tracked consumption is taken out from the generation mix. The EU Residual Mix is used to allocate a fuel-type to any demand in excess of generation claims in the SEM. As in previous years, the Remaining Demand value for 2022 is positive, meaning that there have been excess claims (generation) over supplier demand. As a result of this the EU Residual Mix did not impact the All-Island Fuel Mix. This has led to zero values for Nuclear and EU Fossil, components of the EU Residual Mix.

In the previous All-Island FMDs, SEM participants were provided with an update on GOs and REGOs arrangements in the EU and UK. In so far that the RAs will be made aware, the RAs in conjunction with SEMO, will provide SEM market participants with updates on any changes to any future FMD processes, should subsequent communications or agreements

¹ The European Economic Area (EEA) is made up of the Member States in the EU and additionally Norway, Lichtenstein, and Iceland.

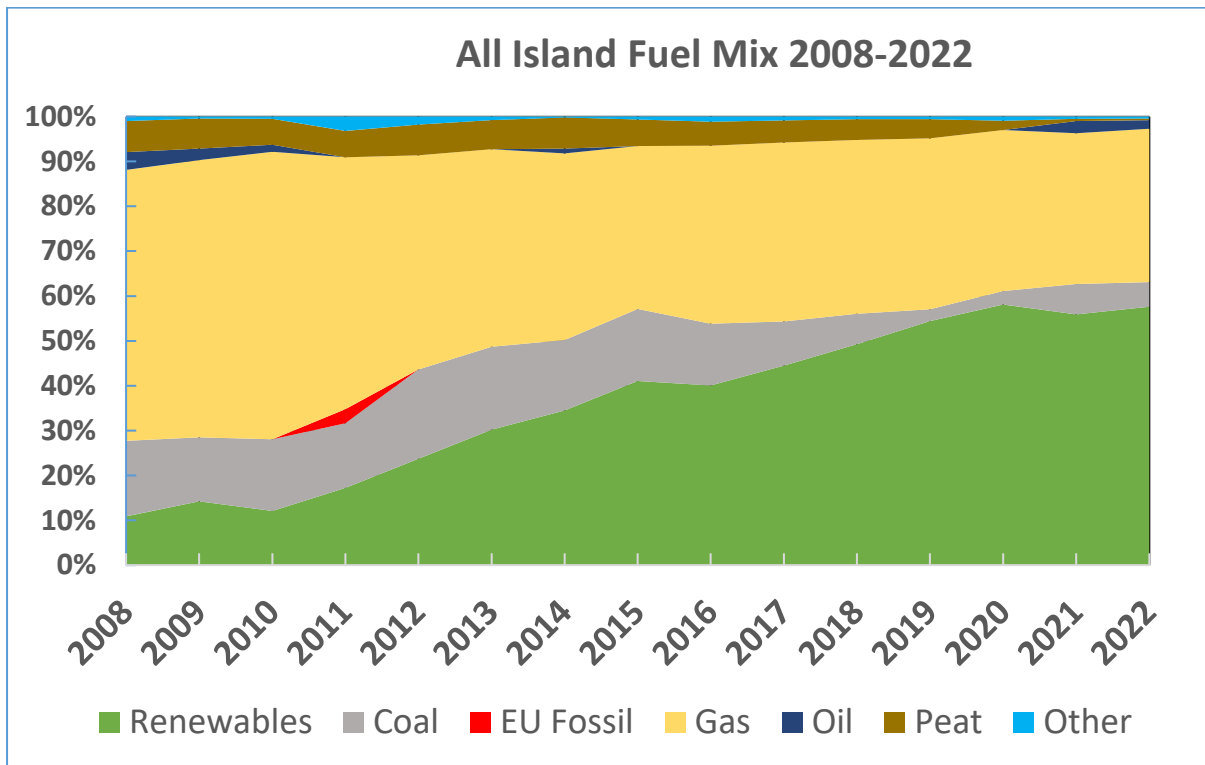
from either the EU or UK authorities indicate a change in the current policy.

Figure 1: All-Island Fuel Mix 2022.



² For this report in 2022 Waste to Energy and Peat meet the criteria for inclusion in the "Other" category.

Figure 2: All-Island Fuel Mix 2008-2022.



The average All-Island CO₂ emissions per kWh of electricity has decreased by 9.3% between 2021 and 2022, from 258 g/kWh in 2021 to 234 g/kWh in 2022. This decrease is predominantly driven by a decreased reliance on coal due to greater renewable and gas generation.

Figure 3: Average All-Island CO₂ Emissions 2008-2022 (inclusive of GOs).

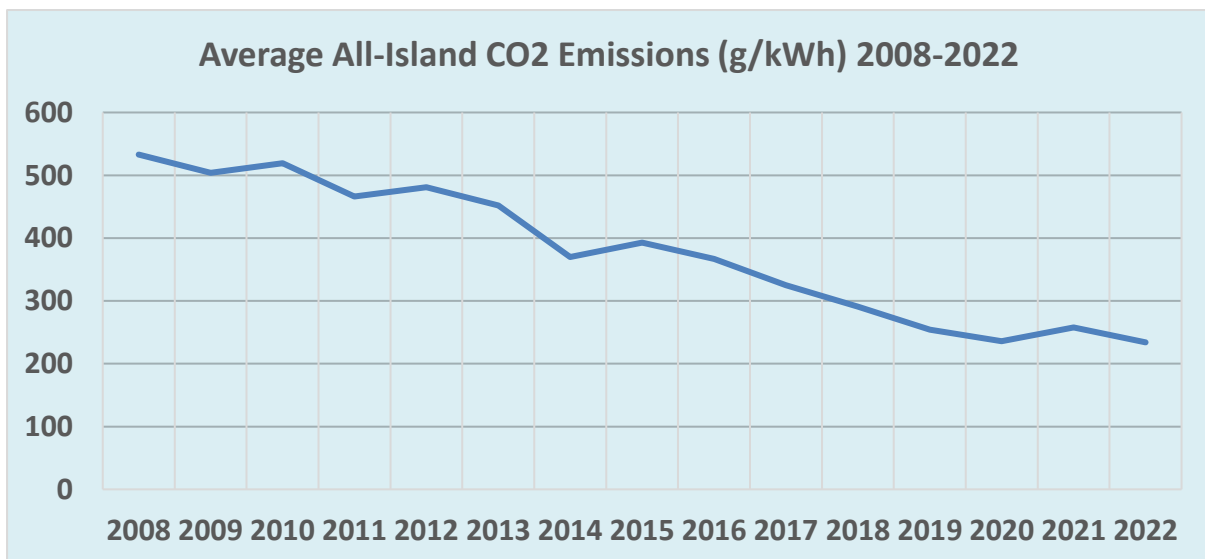


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Glossary of Terms and Abbreviations

Abbreviation or term	Definition or meaning
AIB	Association of Issuing Bodies
CO2	Carbon dioxide
DAERA	Department of Agriculture, Environment and Rural Affairs
EEA	European Economic Area
EPA	Environmental Protection Agency
EU	European Union
FMD	Fuel Mix Disclosure
GO	Guarantees of Origin
GB	Great Britain
gCO2/kWh	grams of carbon dioxide per kilowatt hour
IE	Ireland
MWh	Megawatt hour
NBDFW	Non-Biodegradable Fraction of Waste
NI	Northern Ireland
Q	Quarter
RA	Regulatory Authority
REGO	Renewable Energy Guarantees of Origin
SEM	Single Electricity Market
SEMO	Single Electricity Market Operator
UK	United Kingdom

1. Introduction

1.1 Background

The purpose of this Information paper from the Regulatory Authorities (RAs) is to set out the 2022 fuel mix and carbon dioxide (CO₂) emissions figures for electricity suppliers operating in the all-island wholesale Single Electricity Market (SEM). This is shown on average across the island in Sections 2 and 3 of this information paper, along with year-on-year trends, and per supplier in Section 4. The fuel mix and CO₂ emissions disclosures are taken from data provided to the RAs by the Single Electricity Market Operator ([SEMO](#)). It should be noted that the fuel mix and CO₂ disclosures have to be published on bills from electricity suppliers to customers in Ireland and Northern Ireland no later than two months from the publication of this paper.

The fuel mix and CO₂ emissions disclosures for 2022 provides consumers the recent fuel mix information and environmental impact of the electricity that they buy, compared to the all-island average. The SEM Committee decision paper [SEM/11/095](#) outlines the calculation methodology and assumptions that have been used to calculate the fuel mix and CO₂ emissions for 2022. It should be noted that the fuel mix of each electricity supplier (outlined in this paper) does not necessarily represent metered generation in Ireland or Northern Ireland, as suppliers may claim the attributes of renewable electricity generated outside of the Single Electricity Market (SEM) through electronic certificates known as Guarantees of Origin (GOs), some of which are imported from other EEA Member States³.

The publication of the fuel mix of suppliers and the provision of information regarding the environmental impact of electricity produced from that fuel mix is required by Article 18(6) and point 5 of Annex I of [Directive \(EU\) 2019/944](#)⁴. It is the role of SEMO to administer and calculate the fuel mix figures from the information provided by suppliers. The supplier fuel mix and associated environmental impact information (emissions) are calculated by SEMO in accordance with the SEM Committee's methodology. This methodology can be found in the SEM Committee Decision Paper "*Fuel Mix Disclosure in the Single Electricity Market: Calculation Methodology Decision Paper*" ([SEM/11/095](#)).

At a high level, and in accordance with [SEM/11/095](#), the fuel mix figure for a supplier consists of non-renewable generation attributes, GOs and renewable generation attributes

³ The European Economic Area (EEA) is made up of the Member States in the EU and additionally Norway, Lichtenstein, and Iceland.

⁴ The requirements in Article 3(9) of [Directive 2009/72/EC](#), which is now repealed, is recast as [Directive \(EU\) 2019/944](#).

assigned to a supplier that are not included in the GO scheme and the Residual Mix⁵ or European Union (EU) Residual Mix. GOs are electronic certificates issued for energy generated from renewable sources in EEA Member States and are issued to renewable generators that are not in support schemes⁶. These are tradeable instruments at European level and do not need to follow the physical flow of energy. The Association of Issuing Bodies (AIB)⁷ operates a hub where such certificates can be traded between countries. This allows suppliers to purchase the renewable benefit of certain generators across Europe and include it in their total fuel mix. GOs are both exported from SEM and imported into SEM, to and from the rest of Europe.

Renewable generators that are signed up to the AIB's GO scheme are issued GOs per megawatt hour (MWh) of generation which can then be transferred to suppliers to use in their fuel mix disclosure. Each year, electricity suppliers submit a completed fuel mix declaration form to SEMO which then performs the fuel mix disclosure (FMD) calculations on behalf of the RAs.

Attention should be drawn to the following when considering the fuel mixes and CO2 emission intensities set out in this information paper:

- Firstly, **the all-island and jurisdictional fuel mixes - resulting from the application of trading in GOs - have the potential to vary significantly from the actual renewable generation produced within each jurisdiction.** This depends on the quantity of GOs imported or exported⁸ to or from Ireland and Northern Ireland in respect of the 12-month period for which the calculated fuel mix applies. The key function of the GO is to demonstrate that a given share of quantity of energy was produced from a renewable source in the EEA member states. A single GO is issued per MWh of electricity generated and this one GO can only be used once for the purposes of the fuel mix disclosure. Therefore, there is no double-counting of the same unit of European renewable electricity generation in the fuel mix disclosure.
- Secondly, in the event that there is a deficit of generation attributes to meet overall All-Island demand, **the European Residual Mix will be used to meet the deficit.**

⁵ The Residual Mix is the mix of all unclaimed electricity in the system. It is measured by taking the total metered generation both In-SEM and Out-of-SEM, and deducting from this the four categories of energy that can be claimed by a supplier, in the following order: Public Service Obligation (PSO) energy; Guarantees of Origin (GOs); Renewable Energy Guarantees of Origin (REGOs); Generator Attributes – total amount of non-renewable generation from a fossil-fuelled unit registered by a supplier to be tracked by the calculating body.

⁶ Note that in NI generators who accredited for the Northern Ireland Renewables Obligation (NIRO) scheme can also receive REGOs/GOs.

⁷ The EU Residual Mix was calculated by REDISS from 2011 to 2014, and by AIB from 2015.

⁸ A total of 17.711 million imported GO certificates were declared by suppliers for disclosure in the 2022 fuel mix. One GO represents 1 MWh of electricity produced from a renewable source.

This also – but to a lesser extent - has the ability to lead to a fuel mix that differs from actual metered generation.

It should be noted that for the reasons above, the FMD and CO2 emission figures for a given disclosure period may not necessarily be representative of the actual all-island production for a given calendar year.

The fuel mix information should be presented (“disclosed”) on electricity bills in accordance with [SEM/11/095](#). A template for this purpose is reproduced in Appendix 1 of this paper. In particular the RAs would like to remind suppliers of the following:

- Where fuel mix information is on the back of a bill, reference must be made to it on the front of the bill;
- While radioactive waste information is required by of [Directive \(EU\) 2019/944](#), this figure is zero for all suppliers in 2022 and therefore need not be included with the 2022 FMD information on bills;
- To ensure consistency across suppliers, percentages should be rounded to one decimal place;
- CO2 emissions information should be given in the unit grams of CO2 per kilowatt hour (gCO2/kWh);
- Where separate products associated with a particular fuel mix are offered to certain customers, all the supplier’s customers should receive information, on request, regarding the fuel mix associated with their electricity (not simply the supplier’s average fuel mix) in accordance with [SEM/11/095](#); and
- The 2022 fuel mix and CO2 emissions information must be on all bills within two months of the publication of this paper.

It should be noted that the widely used unit of measure⁹ gCO2/kWh is the preferred unit of measure for reporting on emissions intensity associated with electricity generation. For consistency, the unit gCO2/kWh should be used in billing, advertising, and promotional material of suppliers, including on website presentations, customer bills, infographics, annual reports, etc.

⁹ The unit of measure tCO2/MWh was used in the 2018 report and for some years before that. Use of the unit gCO2/kWh was re-introduced for the 2019 report for disclosures and continues.

As a result of Brexit, Renewable Energy Guarantees of Origin (REGOs) from the United Kingdom (UK) are not acceptable as renewable certificates within European Union (EU) Member States since 1 January 2021.¹⁰

In the previous All-Island FMD, SEMO, in conjunction with both RAs, provided an update on GOs and REGOs arrangements in the EU and UK. The latest arrangements on GOs and REGOs in the EU and UK are summarised as follows:

- **For Suppliers licensed in Northern Ireland:** The UK Government announced in July 2022 its intention to cease the recognition of EU GOs from April 2023. EU GOs were eligible for the 2022 reporting period. The Government will ensure Ofgem will continue to issue REGOs to allow electricity suppliers in NI to comply with their FMD obligations.¹¹

It should be noted that the NI Administration has not made a decision to disallow the use of EU GOs in NI. However, market participants should monitor communications or agreements from either the EU, NI or UK authorities with regards to this position.

- **For Suppliers licensed in Ireland:** From 1 January 2021, UK REGOs are not accepted for import or cancellation for FMD in Ireland.

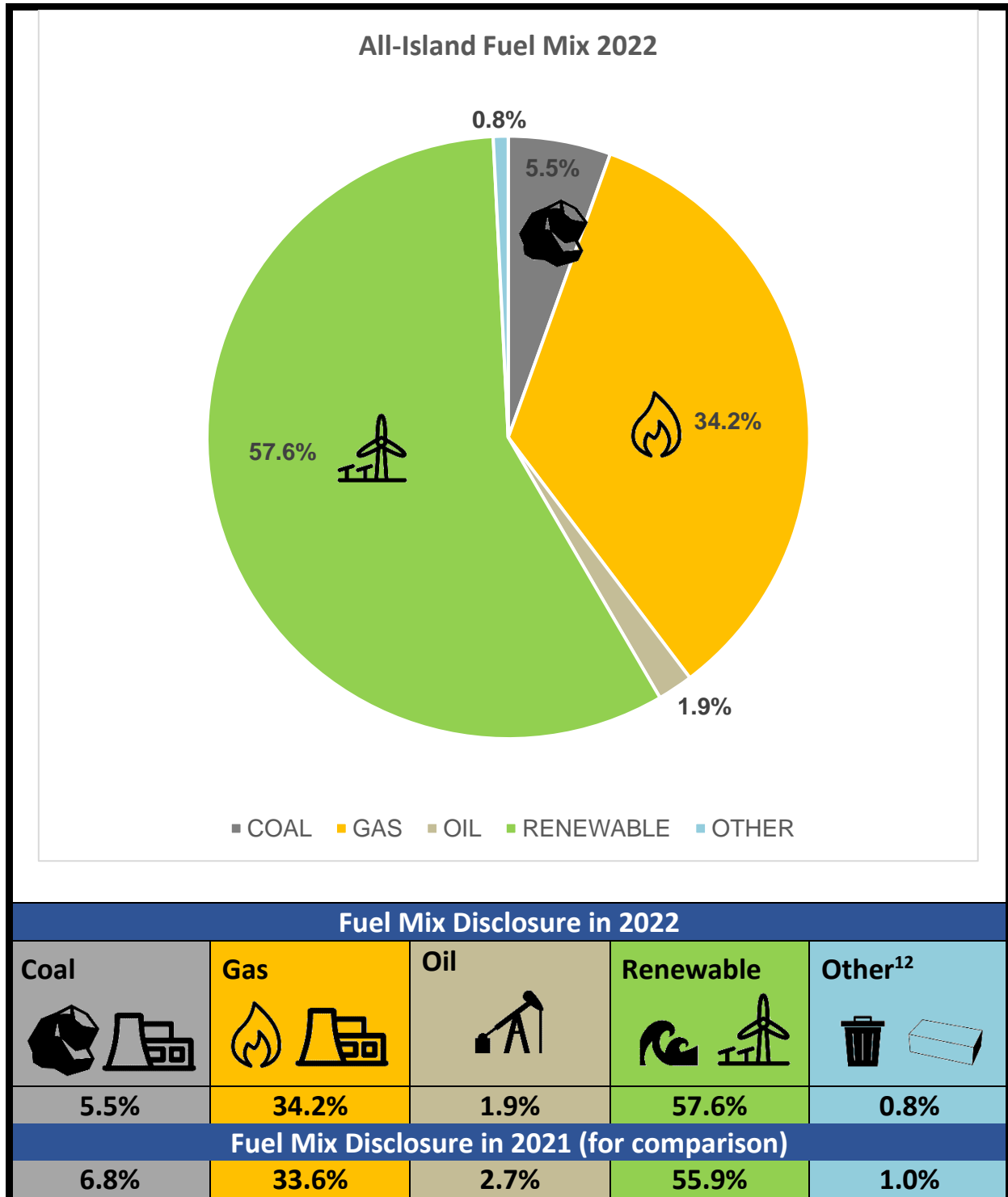
¹⁰ [Notification](#) from the European Commission, issued on 7 March 2018.

¹¹ <https://www.ofgem.gov.uk/environmental-and-social-schemes/renewable-energy-guarantees-origin-rego/renewable-energy-guarantees-origin-rego-electricity-suppliers-and-generators/guarantees-origin-goos>.

2. Average All-Island Fuel Mix 2022

This section sets out the 2022 and year-on-year fuel mix for the all-island SEM, i.e., on average across the island.

Figure 4: All-Island Fuel Mix 2022.



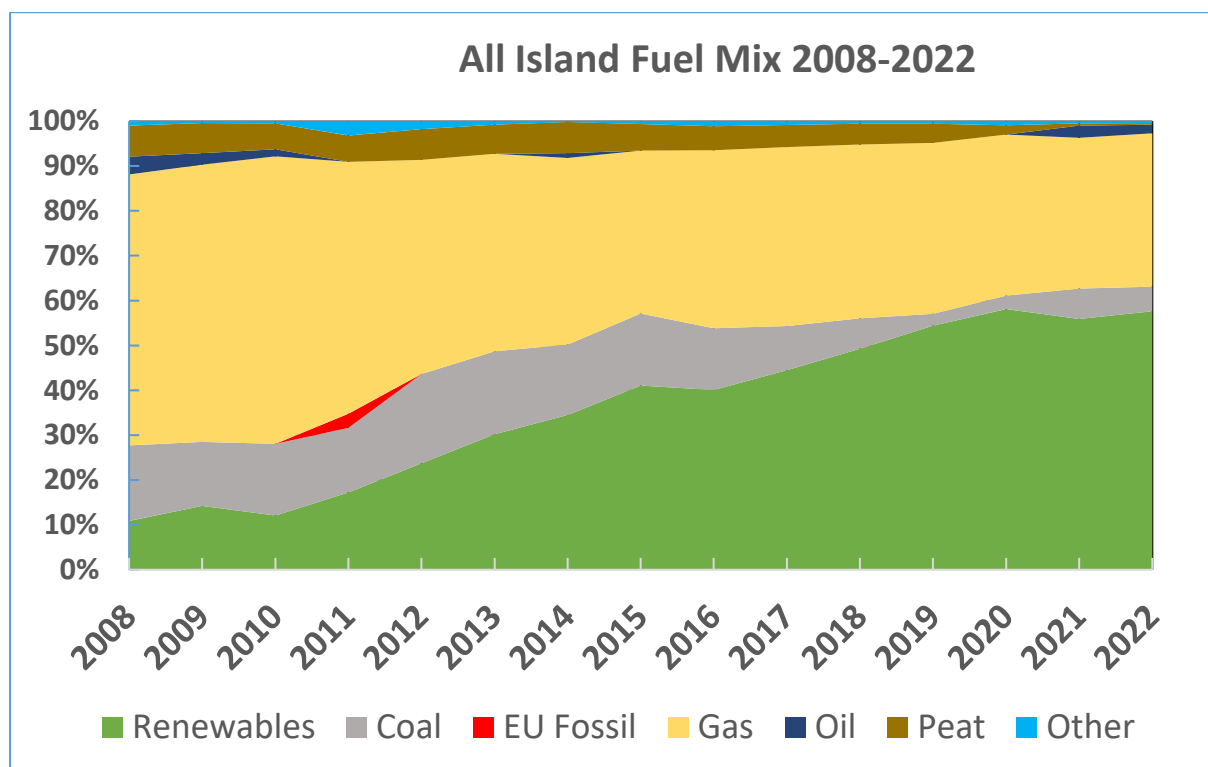
Source: SEMO data

¹² For this report in 2022 Waste to Energy and Peat meet the criteria for inclusion in the "Other" category.

The SEM Committee decision paper [SEM/11/095](#) outlines the calculation methodology and assumptions that have been used to calculate the fuel mix and CO2 emissions for 2022. It should be noted that all figures here include GOs and not only metered generation.¹³

For 2022, the predominant fuels in the final fuel mix were coal, gas, and renewables. Coal has decreased from 2021 but remain high compared to 2020 levels due to more reliance on this fuel type due to the energy crisis. Renewables for 2022 have increased marginally by 1.7% bringing it to 57.6%. A large proportion (53%) of the renewables were made up of imports claimed from outside of the SEM. In total, 17,711,837 GO certificates were imported into the SEM in 2022, a 2% increase from the previous year.

Figure 5: All-Island Fuel Mix 2008-2022.



Source: SEMO data

In accordance with [SEM/11/095](#), the “Other” category consists of the aggregate of all fuels in a given year that individually represent less than 1% of the final overall generation. For this report in 2022 waste to energy (0.4%) and peat (0.4%) meet the criteria for inclusion in the “Other” category. Table 1 below compares the “Other” category by year.

¹³ See Section 1 above.

Table 1: Fuel-Types Comprising “Other” Category by Year.

<u>Year</u>	<u>Fuel Type</u>
2015	Waste to Energy, Oil
2016	Waste to Energy, Oil
2017	Waste to Energy, Oil
2018	Waste to Energy, Oil
2019	Waste to Energy, Oil
2020	Waste to Energy, Oil
2021	Waste to Energy, Peat
2022	Waste to Energy, Peat

Source: SEMO data

Residual Mix is the energy source mix that is left over once the reliably tracked consumption is taken out from the generation mix. The EU Residual Mix is used to allocate a fuel-type to any demand in excess of generation claims. As in previous years, the Remaining Demand value for 2022 is positive, meaning that there have been excess claims (generation) over supplier demand. As a result of this the EU Residual Mix did not impact the All-Island Fuel Mix. This has led to zero values for Nuclear and EU Fossil, components of the EU Residual Mix. Table 2 below provides the All-Island Mix by year.

Table 2: All-Island Mix by Year.

<u>Fuel</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Coal	5.5%	6.8%	2.98%	2.63%	6.77%	9.83%	13.76%	16.02%
EU Fossil	0.0%	0.0%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Gas	34.2%	33.6%	35.75%	37.86%	38.51%	39.96%	39.66%	36.36%
Nuclear	0.0%	0.0%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Oil	1.9%	2.7%	0.41%	0.66%	0.59%	0.60%	0.99%	0.49%
Peat	0.4%	0.5%	2.07%	4.25%	4.63%	4.86%	5.35%	5.90%
Renewable	57.6%	55.9%	57.86%	54.04%	48.95%	44.47%	40.09%	41.06%
Waste Energy	0.4%	0.5%	0.94%	0.56%	0.55%	0.28%	0.15%	0.17%

Source: SEMO data

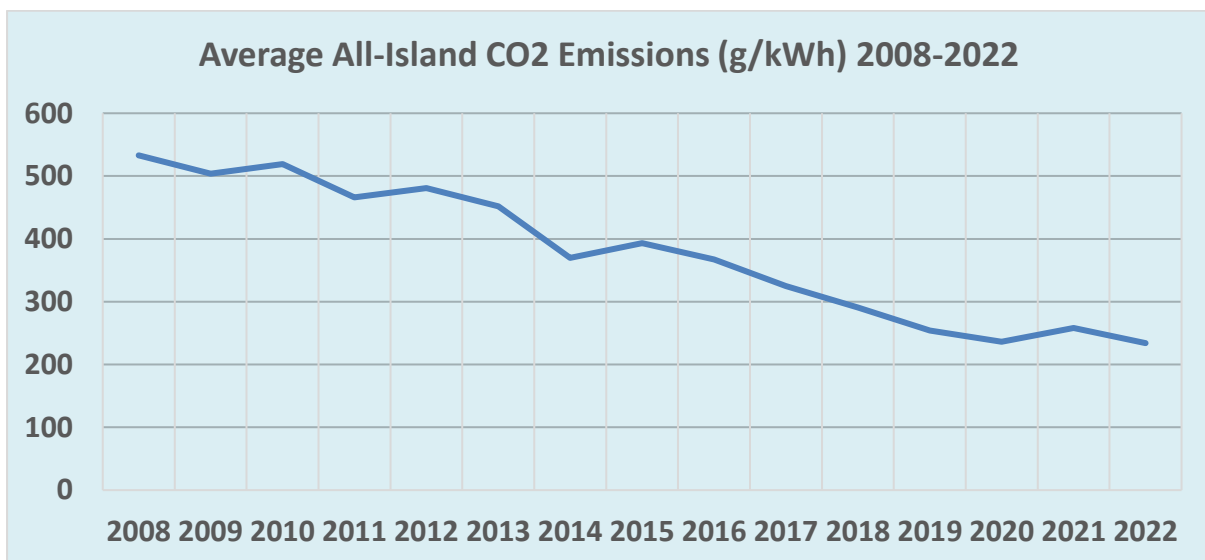
3. Average All-Island CO2 Emissions 2022

Emissions data for each generator in the SEM is supplied annually to SEMO by the EPA (Environmental Protection Agency) for Ireland and the DAERA (Department of Agriculture, Environment and Rural Affairs) for Northern Ireland.

The emission figures are grouped according to fuel type and divided by metered generation to give specific emission factors for each fuel. These values and imported GOs are then used to calculate the average all-island CO2 Emissions Factor and each individual supplier's CO2 Emissions Factor.

The average All-Island CO2 emissions per kWh of electricity has decreased by 9.3% between 2021 and 2022, from 258 g/kWh in 2021 to 234 g/kWh in 2022. This decrease is predominantly driven by an increase in renewable generation and reduced coal, oil, and peat generation in 2022.

Figure 6: Average All-Island CO2 Emissions 2008-2022.



Source: SEMO data


4. Suppliers' Fuel Mix and CO2 Emissions 2022

Following the information in Sections 2 and Section 3 above, this section sets out the fuel mix and CO2 emissions for each electricity supplier.

The fuel mix calculation is carried out on an individual licence basis. Two suppliers, Edenderry Supply Company Limited and Dublin Waste to Energy Supply Limited, joined the FMD in 2022 and are 100% renewable. Killowen Biogas Limited have continued not to take part within FMD following having zero demand in 2021. Arden Energy Limited who were 100% renewable in 2021 are now approx. 28% renewable in 2022.

Table 3 below shows the individual fuel mixes and CO2 emissions in grams per kWh of electricity for each supplier. Those which are below the All-Island Emissions Factor are highlighted in **Green**. Suppliers with an Emissions Factor above the All-Island Emissions Factor are highlighted in **Red**. The average All-Island fuel mix, as declared by the supply companies, (as per section 2) is also provided for reference.

Table 3: Declared Suppliers' Fuel Mix by Fuel Type in 2022

Supplier	Jurisdiction	Coal	Gas	Renewable	Oil	Other	gCO2 /kWh
 All-Island		5.50%	34.20%	57.60%	1.90%	0.80%	234
Bord Gais Energy	IE	0.00%	69.62%	30.38%	0.00%	0.00%	315
Budget Energy	NI	0.00%	0.00%	100.00%	0.00%	0.00%	0
Electric Ireland¹⁴	All-Island	0.12%	22.65%	77.17%	0.04%	0.02%	104
	IE ¹⁵	0.13%	19.80%	80.72%	0.05%	0.02%	88
	NI ¹⁶	0.00%	46.12%	53.88%	0.00%	0.00%	209

¹⁴ Note that all of ESB's electricity supply licences (both IE and NI) are branded as Electric Ireland.

¹⁵ ESB Customer Supply and ESB IE Independent Energy combined.

¹⁶ ESB NI Independent Energy.

Energia	IE	0.00%	0.00%	100.00%	0.00%	0.00%	0
Panda Power	IE	0.00%	0.00%	100.00%	0.00%	0.00%	0
Go Power¹⁷	IE	0.00%	0.00%	100.00%	0.00%	0.00%	0
	NI	11.39%	40.88%	42.01%	3.95%	1.77%	350
Power NI¹⁸	NI	0.00%	67.56%	32.44%	0.00%	0.00%	306
Click Energy	NI	7.13%	25.59%	63.70%	2.47%	1.11%	219
SSE Airtricity	IE	0.00%	0.00%	100.00%	0.00%	0.00%	0
	NI	0.00%	37.60%	62.40%	0.0%	0.0%	170
Flogas Enterprise Solutions¹⁹	IE	0.00%	0.00%	100.00%	0.00%	0.00%	0
	NI	0.00%	0.00%	100.00%	0.00%	0.00%	0
Pinery	IE	0.00%	0.00%	100.00%	0.00%	0.00%	0
Arden Energy	IE	14.21%	51.03%	27.61%	4.93%	2.22%	437
Orsted Ireland Green Energy²⁰	IE	0.00%	0.00%	100.00%	0.00%	0.00%	0
Captured Carbon	IE	0.00%	0.00%	100.00%	0.00%	0.00%	0
Cenergise Trading	IE	0.00%	0.00%	100.00%	0.00%	0.00%	0
Ecopower	IE	0.00%	0.00%	100.00%	0.00%	0.00%	0

¹⁷ LCC IE and NI are branded as GO Power.

¹⁸ Power NI is a combination of the Power NI and Energia NI licences which are all under the Power NI brand and considered together for FMD.

¹⁹ Naturgy has rebranded as Flogas Enterprise Solutions NI and IE. This is different again from Flogas Natural Gas Limited.

²⁰ BRI Green Energy was bought by Orsted and now go by the name Orsted Ireland Green Energy.

Community Power	IE	11.20%	40.23%	42.93%	3.89%	1.75%	345
ElectroRoute Energy Supply	IE	0.00%	0.00%	100.00%	0.00%	0.00%	0
Flogas Natural Gas	IE	0.00%	0.00%	100.00%	0.00%	0.00%	0
Iberdrola Ireland	IE	0.00%	0.00%	100.00%	0.00%	0.00%	0
3T Power	NI	0.00%	0.00%	100.00%	0.00%	0.00%	0
PrePay Power	IE	14.66%	52.65%	25.31%	5.09%	2.29%	451
Edenderry Supply Company	IE	0.00%	0.00%	100.00%	0.00%	0.00%	0

Source: SEMO data

The Residual Mix CO2 Emissions Factor has decreased from 0.514 in 2021 to 0.485 in 2022. This decrease in the Emissions factor is consistent with the decreased volumes of fossil fuel-types contributing to the Residual Mix over these same periods. It should be noted that suppliers who did not submit a fuel mix declaration to SEMO for this FMD have been assigned the Residual Mix and are highlighted as such in Table 4.

Table 4: Suppliers assigned the Residual Mix in 2022

Suppliers assigned All Island Residual Mix	Jurisdiction	Coal	Gas	Renewable	Oil	Other	gCO2 /kWh
Glowpower	IE	14.87%	53.38%	24.27%	5.16%	2.32%	457 ²¹
Waterpower Engineering	IE	14.87%	53.38%	24.27%	5.16%	2.32%	457 ²²

Source: SEMO data

²¹ GlowPower Limited had no claims and were assigned the residual mix emissions factor with the renewable PSO adjustment figure assigned to them factored in.

²² WaterPower Engineering Limited had no claims and were assigned the residual mix emissions factor with the renewable PSO adjustment figure assigned to them factored in.

Three self-suppliers²³ made a declaration for the purposes of fuel mix disclosure. These associated fuel mixes have been included in Table 5 below.²⁴

Table 5: Self-Suppliers' Fuel Mix by Fuel Type in 2022

Self-Supplier	Jurisdiction	Coal	Gas	Renewable	Oil	Other	gCO2 /kWh
Axpo UK	IE	0.0%	0.0%	100.0%	0.0%	0.0%	0
Dublin Waste to Energy Supply	IE	0.0%	0.0%	100.0%	0.0%	0.0%	0
Statkraft Markets GmbH	IE	0.0%	0.0%	100.0%	0.0%	0.0%	0

Source: SEMO data

²³ A self-supplier is a supply company which supplies electricity only to its own site and which does not compete to supply energy to any third party.

²⁴ It should be noted that the purpose of this paper is to provide information to customers on the fuel mix and CO2 emissions of their electricity supply. **Only suppliers serving electricity customers are required to disclose their assigned fuel mix.**

Appendix 1: Presentation of Information on Bills

Default Presentation of Information²⁵

The fuel mix information should be presented on electricity bills in accordance with [SEM/11/095](#). For this purpose, a template from this decision paper is reproduced below.²⁶

Suppliers who offer green source products in Ireland should refer to Section 3.5.3 of the CRU's Decision paper, [CER/15/205](#), on the "Regulation of Green Source Products in the Electricity Retail Market".

SUPPLIER Z Disclosure Label		
Applicable Period: January 2022 to December 2022		
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 %
Nuclear	X %	X %
Renewable	X %	X %
Peat	X %	X %
Oil	X %	X %
EU Fossil	X %	X %
Other	X %	X %
Total	100 %	100 %
Environmental Impact		
CO2 Emissions	X g/kWh	X g/kWh
Your specific fuel mix may differ from the fuel mix shown because SUPPLIER Z offers green source products. For information on your fuel mix and on the environmental impact of your electricity supply visit www.SUPPLIER Z.ie or, for further details call 00XXX X XXX XXXX		

²⁵ Refer to [SEM/11/095](#) for further detail on presentation requirements. Note that the fuel categories used each year can vary.

²⁶ Please refer to Section 1.7 of [SEM/11/095](#) for further details.

Appendix 2: All-Island Fuel Mix 2005-2022

Table 6: Fuel Mix 2005-2022 (Percentage share of total)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Coal %	24.00	19.00	18.00	17.00	14.24	15.98	14.44	19.89	18.42	15.71	16.02	13.76	9.83	6.77	2.63	2.98	6.80	5.50
EU Fossil %	0.00	0.00	0.00	0.00	0.00	0.00	3.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gas %	46.00	50.00	55.00	61.00	61.85	64.06	56.16	47.74	44.09	41.6	36.36	39.66	39.96	38.51	37.86	35.75	33.60	34.20
Oil %	12.00	9.00	6.00	4.00	2.53	1.59	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00	2.70	1.90
Renewables %	9.00	11.00	11.00	11.00	14.23	12.11	17.21	23.74	30.24	34.46	41.06	40.09	44.47	48.95	54.04	57.86	55.90	57.60
Peat %	8.00	7.00	6.00	7.00	6.70	5.78	5.88	6.86	6.49	6.95	5.90	5.35	4.86	4.63	4.25	2.07	0.50	0.40
Other %	1.00	4.00	4.00	1.00	0.45	0.48	3.18	1.77	0.75	0.17	0.17	0.15	0.28	0.55	0.56	0.94	0.50	0.40

Notes:

- Figures from 2005 to 2007 relate to Ireland-only and calculations are based on a pre-SEM methodology.
- Figures for 2008, 2009 and 2010 relate to Ireland and Northern Ireland and are based on the Interim Arrangements Methodology ([SEM/09/081](#)).
- Figures for 2011 onwards relate to Ireland and Northern Ireland and are based on the SEM Committee Decision Paper Fuel Mix Disclosure in the Single Electricity Market: Calculation Methodology Decision Paper ([SEM/11/095](#)), referenced in the Related Documents section of this paper.
- The threshold for a fuel-types inclusion in the “Other” category is <1% of Final All-Island Mix. The “Other” category consists of Non-Biodegradable Fraction of Waste (NBDFW) and EU Fossil (only for 2011).