

## **Single Electricity Market**

### **Interim Arrangements: Fuel-Mix Disclosure in the SEM**

### **Consultation Paper**

**20<sup>th</sup> May, 2009**

**SEM – 09 – 052**

## Executive Summary

Under Article 3(6) of the Internal Market Directive (Directive 2003/54/EC), Member States are required to ensure that electricity suppliers indicate in or with bills, and in promotional materials made available to final customers, the contribution of each energy source to their overall fuel-mix over the previous year. Suppliers are also obliged to provide at least a reference to existing sources of information regarding the environmental impact resulting from the electricity produced by the fuel-mix of the supplier in question over the same period.

The Regulatory Authorities are currently developing a certificate system on an all-island basis and putting in place necessary procedures in relation to a fuel-mix disclosure for the island. The high level methodology for these arrangements is outlined in the Decision Paper SEM/09/033<sup>1</sup>. However, arrangements for fuel-mix disclosure must be put in place for the period before the full implementation of an all-island certificate system; these interim arrangements are the subject of this paper.

This Consultation Paper sets out the Regulatory Authorities' proposed approach for fuel-mix disclosure to be in force until the full implementation of the arrangements set-out in SEM/09/033 and are without prejudice to any requirements arising from the Proposed Renewables EU Directive<sup>2</sup> or further Decisions of the Regulatory Authorities relating to an enduring solution for fuel-mix disclosure.

The Regulatory Authorities' proposed approach is for suppliers' fuel-mix to be calculated on the basis of the average fuel-mix for the pool, Relevant Arrangements, bi-lateral purchases between generators and suppliers acting as Intermediaries, and the energy purchased in bi-lateral out-of-pool trades. This option is proposed as it allows suppliers to differentiate themselves from other suppliers in terms of their fuel-mix and it is therefore consistent with the requirement set out in Article 3(6) of Directive 2003/54/EC. A further important consideration is that this option can be implemented in a relatively short timeframe and therefore facilitate early publication of fuel-mix information for the calendar year 2008.

It is proposed that the environmental impact information and promotional materials will be as set out in the Decision Paper SEM/09/033 (this is reproduced for information in the Appendices). The paper also sets out several proposed requirements on the presentation of environmental and fuel-mix information:

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<sup>1</sup> SEM/09/033, High Level Methodology for the Calculation of Fuel Mix Disclosure in the SEM, Decision Paper

<sup>2</sup> Proposal for a Directive of the European Parliament and of the Council on the promotion of the use of energy from renewable sources; COM (2008) 19; 2008/0016/COD. Please note that the text of the Proposed Directive has been finalised but the Proposed Directive has not been published in the Official Journal of the European Union as at the date of publication of this Consultation. The current stage of the proposed Directive, as well as the latest text in place, is available at <http://www.europarl.europa.eu/oeil/file.jsp?id=5589632>

- information must be presented as set out in the Appendices to this paper and provided to customers at least annually;
- supplier's figures and average figures for the market must be shown for comparative purposes. Separate figures are additionally required where specific fuel-mix products are offered to certain customers; and
- the required categories are; coal, natural gas, peat, renewables, oil, nuclear, and other. Further division of fuel categories is permitted.

It is proposed that the Single Electricity Market Operator (SEMO) will be the implementing body for the interim arrangements. The Regulatory Authorities consider the SEMO to be best placed to undertake this work given its role in the SEM.

Following consideration of comments to this paper from interested parties, the Regulatory Authorities will produce a Decision Paper in June of this year. The SEMO will utilise emissions data for the 2008 Disclosure Period provided by the EPA in Ireland and DECC in the UK for data relevant to Northern Ireland. It is envisaged that the SEMO will have all relevant supplier data compiled and calculations complete by the end of July in order that 2008 fuel-mix and environmental impact information can subsequently be produced on all customers' bills by suppliers. Therefore suppliers' input will be required by early July.

**Table of Contents**

1	Introduction.....	1
1.1	Background.....	1
1.2	Purpose of this Paper .....	2
1.3	Responses.....	4
2	Legislative Background.....	5
2.1	EU Legislative Requirements.....	5
2.2	Member State Disclosure Legislation .....	5
2.3	Disclosure and National Reporting Requirements .....	6
3	Interim Methodology .....	7
3.1	Interim Calculation Methodology Options .....	7
3.1.1	Option One – No New Calculation .....	8
3.1.2	Option Two – Use of the Average Fuel-Mix.....	8
3.1.3	Option Three – Average Pool-Fuel-Mix and Bi-lateral Purchases.....	9
3.2	Proposed Approach .....	10
3.3	Calculation Details .....	11
3.3.1	Transmission Loss Adjustment Factors (TLAFs).....	11
3.3.2	Intermediary Arrangements.....	11
3.3.3	Environmental Impact Information.....	11
3.3.4	Presentation of Fuel-Mix and Environmental Impact Information.....	11
4	Implementation .....	13
4.1	Provision of Required Evidence .....	13
4.2	Calculating Body.....	14
5	Timeline for Implementation and Subsequent Calculations .....	15
6	Request for Comment.....	16
7	Appendix A: Presentation of Information .....	17
7.1	Figure 1: Default Presentation of Information.....	17
7.2	Figure 2: Presentation of Information with Individual Product Information .....	18
7.3	Figure 3: Presentation of Information with Additional Fuel Sub-Categories .....	19
8	Appendix B: Environmental Impact Information.....	20
8.1	Environmental Impact Information.....	20
8.2	Promotional Materials .....	20

# 1 Introduction

## 1.1 Background

Article 3(6) of the Internal Market Directive (Directive 2003/54/EC<sup>3</sup>) requires Member States to ensure that the contribution of each energy source to the overall fuel-mix of the supplier over the preceding year and related environmental information are provided in or with bills sent by suppliers to final customers. This Article also stipulates that Member States must take the necessary steps to ensure that the above information provided by suppliers to customers is reliable.

The Single Electricity Market Committee<sup>4</sup> (SEM Committee) has determined that the disclosure of information to customers by suppliers in the All-Island Market is a responsibility of the SEM Committee within the meaning of the relevant legislation.<sup>5</sup>

Taking into consideration the need for a new calculation method in light of the development of the SEM, the Regulatory Authorities published a consultation paper (AIP/SEM/07/46) in March 2007 setting out three high level options for the calculation of the fuel-mix disclosure in the SEM in accordance with Article 3(6) of Directive 2003/54/EC. The three methodologies proposed in this consultation paper were the use of an average pool fuel-mix, financial contracts, or the certification of fuel types.

The Regulatory Authorities produced a proposed decision paper (SEM/08/006) in February 2008 which detailed a proposed calculation methodology for fuel-mix disclosure as well as a procedure for the production of environmental impact information in the SEM, including related format and presentation requirements. In accordance with Article 5 of the Renewables Directive (Directive 2001/77/EC<sup>6</sup>), which sets out requirements for the establishment of Renewable Energy Guarantees of Origin (REGOs) for electricity produced from renewable energy sources, and in accordance with relevant articles of Directive 2003/54/EC, the SEM Committee proposed in this paper that the calculation of fuel-mix disclosure in the SEM to final customers for a given Disclosure Period would be largely based on REGOs and Generator Declarations.<sup>7</sup>

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<sup>3</sup> Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC.

<sup>4</sup> The SEM Committee was established in Ireland and Northern Ireland by virtue of section 8A of the Electricity Regulation Act 1999 as inserted by section 4 of the Electricity Regulation (Amendment) Act 2007, and Article 6(1) of the Electricity (Single Wholesale Market) (Northern Ireland) Order 2007 respectively. The SEM Committee is a Committee of both CER and NIAUR (the Regulatory Authorities) which, on behalf of the Regulatory Authorities, takes any decision as to the exercise of a relevant function of CER or NIAUR in relation to a SEM matter.

<sup>5</sup> Electricity Regulation (Amendment) (Single Electricity Market) Act 2007 amending the Electricity Regulation Act 1999.

<sup>6</sup> Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market

<sup>7</sup> SEM/08/006, Disclosure of Information to Final Customers by Suppliers Proposed Decision Paper, 22 February, 2008

Having examined this methodology in the context of the latest version of the Proposed Renewables Directive<sup>8</sup> regarding the promotion of renewable energy sources, as well as further comments from suppliers, the Regulatory Authorities have published a high level decision paper setting out that a system involving REGOs and Generator Declarations is to be employed as the enduring method for the calculation of suppliers' disclosed fuel-mix in the SEM. The decision paper is published on the All-Island Project website.<sup>9</sup>

In Ireland, the calculation of the fuel-mix in the market prior to the establishment of the SEM was based on generation, bilateral trades, top-up, spill, imports, exports and demand for each calendar year, details of which are present in the decision paper, CER/06/117. Following the introduction of the SEM in November of 2007 a method to calculate fuel-mix information for the last two months of 2007 was developed in order to allow for the provision of fuel-mix figures for the 2007 Disclosure Period. This methodology is set out in the decision paper, CER/07/215. An information paper (CER/08/195) on fuel-mix and CO<sub>2</sub> emission factors for this Disclosure Period, calculated in accordance with the methods set out in the above two Commission papers, was produced by the Commission in November 2008.<sup>10</sup>

## 1.2 Purpose of this Paper

The SEM Committee has recognised that the introduction of a system for the issuing of REGOs and Generator Declarations in Ireland, as well as the tracking and use of REGOs and Generator Declarations for the calculation of suppliers' disclosed fuel-mix in the SEM, will take time to implement.<sup>11</sup> It has also been noted that in Ireland the legal basis for the use of REGOs in Ireland will be through a statutory instrument to be prepared by the Department of Communications Energy and Natural Resources (DCENR) following the publication in the Official Journal of the European Union of the Proposed Renewables Directive. A further consultation paper on the detail behind the high level calculation methodology will be carried out by the Regulatory Authorities in 2009. Legislation for the use of REGO's in Northern Ireland has already been enacted (viz. the Electricity Guarantees of Origin of Electricity Produced from Renewable Sources Regulations (NI) 2003).

The SEM Committee is also mindful that this methodology will not be in operation for the calculation of suppliers' fuel-mix for the 2008 and subsequent disclosure periods until the implementation of the arrangements set out in SEM/09/033. This paper therefore, puts forward options regarding an interim methodology as well as details on the implementation of such an approach in the context of the SEM.

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<sup>8</sup> Proposal for a Directive of the European Parliament and of the Council on the promotion of the use of energy from renewable sources; COM (2008) 19; 2008/0016/COD. Please note that the text of the Proposed Directive has been finalised but the Proposed Directive has not been published in the Official Journal of the European Union as at the date of publication of this Consultation. The current stage of the proposed Directive, as well as the latest text in place, is available at <http://www.europarl.europa.eu/oeil/file.jsp?id=5589632>

<sup>9</sup> SEM/09/033, High Level Methodology for the Calculation of Fuel Mix Disclosure in the SEM, Decision Paper, 2 April, 2009

<sup>10</sup> Fuel Mix and CO<sub>2</sub> Emission Factors Disclosure 2007 CER/08/195 7th November 2008

<sup>11</sup> SEM/09/033, High Level Methodology for the Calculation of Fuel Mix Disclosure in the SEM, Decision Paper 2<sup>nd</sup> April 2009

The proposed arrangements set out in this paper are separate and distinct from the requirements outlined in the decision paper on the High Level Methodology for the Calculation of Fuel-mix Disclosure in the SEM (SEM/09/033) and will cease to apply at the end of the Interim Period. Furthermore these proposed arrangements are without prejudice to any future Decisions in relation to fuel-mix disclosure and should not in any way be considered to be setting a precedent for future arrangements.

Section 2 of this paper sets out the legislative background on this issue.

Section 3 presents the interim calculation methodology options, the preferred approach of the Regulatory Authorities, details of the calculation of environmental impact information and requirements in relation to the presentation and format of fuel-mix information.

Section 4 presents provides information on the implementation of the Regulatory Authorities proposed approach.

Section 5 details the Regulatory Authorities' proposed timeline for the implementation of the chosen calculation methodology.

In order to ensure that no ambiguity exists in relation to certain terms used in this paper, the following clarifications are included below:

Average fuel-mix for the island of Ireland	means the fuel-mix associated with the total generation on the island of Ireland plus net imports;
Certificates	refers to both REGOs and Generator Declarations unless otherwise stated;
Generator Declaration	means a document (electronic or otherwise) which has the sole purpose of proving to final customers that a given share/quantity of electricity was produced from certain non-renewable sources;
Interim Period	means the period in which the proposed arrangements outlined in this paper will apply until the full implementation of the arrangements set-out in SEM/09/033;
Relevant Arrangement	for the purpose of this paper Relevant Arrangement is as defined by Article 34(7) of the Renewables Obligation Order (Northern Ireland) 2009. As defined by this order no more than one such arrangement may exist in relation to each unit of energy; and
Renewable Energy Guarantee of Origin (REGO)	means a document (electronic or otherwise) which has the sole purpose of proving to final customers that a given share/quantity of electricity was produced from renewable sources. The legal basis and function of 'guarantees of origin' are set out in Article 5 of Directive 2001/77/EC.

### 1.3 Responses

Comments are requested from interested parties on the matters raised in this paper, specifically the options discussed and the Regulatory Authorities preferred option. Comments on this paper should be submitted by **5pm Friday, 19<sup>th</sup> June, 2009** to Robert O'Rourke ([rorourke@cer.ie](mailto:rorourke@cer.ie)) and Frankie Dodds ([frankie.dodds@niaur.gov.uk](mailto:frankie.dodds@niaur.gov.uk)).

Please note that the Regulatory Authorities intend to publish all responses. Therefore confidential responses should be clearly marked as such and where possible placed in a separate annex to the response.

For further information on the issues set out in this paper please contact either:

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## 2 Legislative Background

### 2.1 EU Legislative Requirements

Member State's duties in relation to the disclosure of fuel-mix and environmental impact data in the bills of customers are set out in Article 3(6) of Directive 2003/54/EC. It states that:

*“Member States shall ensure that electricity suppliers specify in or with bills and in promotional materials made available to final customers:*

- a) the contribution of each energy source to the overall fuel mix of the supplier over the preceding year;*
- b) at least the reference to existing reference sources, such as web-pages, where information on the environmental impact, in terms of at least emissions of CO<sub>2</sub> and the radioactive waste resulting from the electricity produced by the overall fuel mix of the supplier over the preceding year is publicly available.*

*With respect to electricity obtained via an electricity exchange or imported from an undertaking situated outside the Community, aggregate figures provided by the exchange or the undertaking in question over the preceding year may be used.*

*Member States shall take the necessary steps to ensure that the information provided by suppliers to their customers pursuant to this Article is reliable.”*

It should be noted that the fuel-mix disclosure calculation options and related information detailed in this paper are applicable to the Interim Period and are without prejudice to the Proposed Renewables Directive and future EU and Member State legislation relating to REGOs and fuel-mix disclosure.

### 2.2 Member State Disclosure Legislation

Article 3(6) of Directive 2003/54/EC has been transposed into national legislation in Ireland by Regulation 25 of S.I. 60 of 2005.<sup>12</sup> In this regard, the Commission is required to ensure that all suppliers provide on bills/promotional materials sent to customers reliable information regarding the contribution of each energy source to their overall fuel-mix and related environmental impact information over the preceding year.

Article 3(6) was transposed in Northern Ireland under the Electricity Order 1992 (Amendment) Regulations (Northern Ireland) 2005. Article 5 inserts a new Article 11A (8) in the Electricity (NI) Order 1992 under which electricity licences, issued by the NIAUR, shall include conditions to ensure compliance with Article 3(6) of the Directive 2003/54/EC.

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<sup>12</sup> S.I. 60 of 2005 European Communities (Internal Market in Electricity) Regulations 2005

### **2.3 Disclosure and National Reporting Requirements**

Directive 2001/77/EC, does not require Member States to recognise the purchase of a guarantee of origin from other Member States or the corresponding purchase of electricity as a contribution to the fulfilment of national targets.<sup>13</sup> Therefore, imported guarantees of origin from other Member States do not have to be used to meet a Member State's RES-E target.

As has been clarified in the Decision Paper SEM/09/033 fuel-mix disclosure calculations do not have to correspond with statistical data related to national targets. Accordingly fuel-mix disclosure calculation for the Interim Period will not necessarily correspond to data relating to national targets in Ireland or Northern Ireland which are subject to separate calculations.

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<sup>13</sup> See Recital 10 of Directive 2001/77/EC

### 3 Interim Methodology

An interim methodology is required for the Interim Period in advance of the implementation of the methodology outlined in the decision paper SEM/09/033. The Regulatory Authorities require that this interim methodology meet the objectives of Article 3 (6) of the Directive 2003/54/EC.

Accordingly, the objectives of the fuel-mix and environmental impact requirements are to:

1. increase market transparency by providing open and easy access to relevant information;
2. comply with consumers' right to information regarding purchased products;
3. enable consumers to make informed choices about suppliers based on the generation characteristics of the electricity they supply; and
4. educate consumers and stimulate electricity generation that contributes to a secure and sustainable electricity system.<sup>14</sup>

The Regulatory Authorities have taken into account their original objectives regarding the introduction of a new calculation method for fuel-mix disclosure in the SEM, as first set out in the consultation paper AIP/SEM/07/46, and the current need for a reliable solution in relation to the 2008 and the subsequent Disclosure Periods occurring in the Interim Period.

Therefore additionally, for the interim methodology to be put in place it must:

5. be possible to implement in a speedy and cost-effective manner that does not place a significant administrative burden on suppliers;
6. be in accordance with governing EU and Member State legislative requirements related to fuel-mix disclosure; and
7. facilitate ease of comparison by customers on the island of information provided by suppliers in accordance with the disclosure requirement.

#### 3.1 Interim Calculation Methodology Options

The Regulatory Authorities consider that there are three principal high-level options for the interim calculation of the disclosed fuel-mix associated with energy supplied to final customers. These options, along with the associated advantages and disadvantages in light of the above objectives, are set out below.

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<sup>14</sup> These four objectives are set out in the Note of EU Commission on Directives 2003/54 and 2003/55 on the Internal Market in Electricity and Natural Gas (Non Binding) entitled 'Labelling provision in Directive 2003/54/EC'.

### 3.1.1 Option One – No New Calculation

Under this option, no interim calculation methodology would be introduced for suppliers in the SEM. The fuel-mix and environmental impact data for the 2007 Disclosure Period in Ireland would continue to be used on bills and promotional materials provided to Irish customers. No information would be calculated and provided for customers in Northern Ireland. Points to be noted regarding this option are as follows:

- this option fully satisfies criteria 5 as no new data would have to be compiled, calculated and produced;
- the approach would not be in accordance with fuel-mix disclosure legislation in Northern Ireland as no information would be available;
- in Ireland such information would be more than one year out of date, its publication could be considered misleading and therefore, contrary to the requirements of Directive 2003/54/EC; and
- such dated information would not allow consumers to make educated choices between different suppliers.

Whilst this option is the least onerous from an administrative and cost point of view, a considerable time has passed since the generation figures and the calculations on which they were based were compiled and therefore the Regulatory Authorities consider it inappropriate for the 2008 Disclosure Period and the following Disclosure Periods. Furthermore fuel-mix disclosure information has not yet been implemented in Northern Ireland.

Consequently the Regulatory Authorities are not minded to adopt this approach.

### 3.1.2 Option Two – Use of the Average Fuel-Mix

Under this option, the fuel-mix for the pool is calculated based on the total generator output for generation that is seen in the trading systems of the SEM pool in the given Disclosure Period. Generation associated with all out-of-market trades is also calculated and added to SEM pool data to produce the average fuel-mix for the island. This data would then be applied to *all* suppliers on the island. Points to be noted regarding this option are as follows:

- implementation would be straightforward and would not require much time to carry out. In this way, costs would be minimised;
- such an approach would not allow suppliers to differentiate their offerings to customers on the basis of fuel type and would not meet criteria 3 and 4 as set out above; and
- as fuel-mix information relevant to each supplier would not be provided but would be the same for all suppliers, greater market transparency would not be achieved.

While Option Two may be regarded as relatively straightforward to implement, it does not allow suppliers to differentiate their offerings to customers on the basis of fuel type of energy supplied. The information would also not attribute the generation acquired outside of the SEM pool to individual suppliers but would attribute such trades across all suppliers and so would not act to benefit renewable generation.

For these reasons the Regulatory Authorities are not minded to adopt this approach.

### **3.1.3 Option Three – Average Pool-Fuel-Mix and Bi-lateral Purchases**

Under this option, the average fuel-mix of the pool would be calculated in a similar manner as Option Two. However, this will exclude energy sold into the pool which is covered by Relevant Arrangements or a Power Purchasing Agreement (PPA), provided an equivalent amount of energy is purchased from the pool by the supplier who is party to the PPA or Relevant Arrangement. Such energy will be included in the supplier's fuel-mix. Energy traded outside of the pool through bi-lateral contracts, as provided for in the SEM Trading and Settlement Code, would also be incorporated into the fuel-mix of the relevant suppliers. Implementation requirements include the central calculation of generation in the average pool fuel-mix in the SEM for the calendar year in question plus computation of the individual supplier's remaining fuel-mix based on bilateral contracts, Relevant Arrangements and PPAs.<sup>15</sup> Points to be noted regarding this option are as follows:

- The use of bilateral agreements in this approach is beneficial as it would allow suppliers to differentiate their offerings and therefore allow consumers to compare suppliers based on the generation characteristics of the electricity they supply. A more open and accurate representation of suppliers' market activity would therefore be produced relative to the other options presented.
- While this method does involve the use of a greater amount of data in comparison with the other methodologies, the Regulatory Authorities believe that it could still be implemented in a relatively swift and economical manner.
- The approach is consistent with the requirement set out in Article 3(6) of Directive 2003/54/EC in that it is as reflective and reliable as possible in a pool market of the suppliers' fuel mixes for final customers.

The Regulatory Authorities consider that Option Three best serves to facilitate suppliers who wish to differentiate their offerings to customers on the basis of fuel types in a manner that is straightforward and is consistent with the existing legal framework. It may also be viewed as the option that is most consistent with the enduring calculation method in the absence of a system for the calculation of fuel-mix disclosure using REGOs and Generator Declarations and can be implemented in a relatively short timeframe<sup>16</sup>.

Therefore the Regulatory Authorities propose to adopt Option Three.

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<sup>15</sup> For the avoidance of doubt this does not include contracts for differences. Such contracts shall not be considered for the purposes of fuel-mix disclosure.

<sup>16</sup> However, for the avoidance of doubt, this approach is without prejudice to any future Decisions in relation to fuel-mix disclosure and should not in any way be considered to be setting a precedent for future arrangements.

### 3.2 Proposed Approach

As discussed above the Regulatory Authorities consider Option Three, that is, using a given supplier's bi-lateral purchases and the average pool fuel-mix, as the most appropriate option for the interim methodology. Accordingly the fuel-mix information for a given Disclosure Period as required under Article 3(6) of Directive 2003/54/EC will be based on evidence of the source of energy as follows:

- 1) bilateral contracts for electricity generated on the island and traded outside of the SEM pool<sup>17</sup>;
- 2) Power Purchase Agreements and Relevant Arrangements for energy sold into the pool where an equivalent amount is subsequently purchased from the pool by the supplier who is party to the agreement;
- 3) bilateral contracts and related REGOs for electricity imported to the island of Ireland, accompanied by assurances that the REGO has not and will not be used as evidence of fuel-mix for disclosure purposes outside of the island of Ireland and by evidence to the satisfaction of the Regulatory Authorities that physical energy of an equivalent volume was imported over the interconnector by the supplier in question;
- 4) the UK residual fuel-mix will be applied to energy imported to the island of Ireland that is not covered by any of the above evidence. This residual fuel-mix is available on the website of the Department of Business, Enterprise and Regulatory Reform<sup>18</sup>; and
- 5) the Average Pool Fuel-Mix for the Island of Ireland will be applied in the absence of the above evidence.

For the avoidance of doubt, this proposed methodology is an interim measure for the Interim Period and will be superseded by the enduring methodology (as outlined in SEM/09/033).

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<sup>17</sup> For the avoidance of doubt this does not include contracts for differences. Such contracts shall not be considered for the purposes of fuel-mix disclosure.

<sup>18</sup> <http://www.berr.gov.uk/energy/markets/electricity-markets/fuel-mix/page21629.html>

### 3.3 Calculation Details

#### 3.3.1 Transmission Loss Adjustment Factors (TLAFs)

The transmission loss factors for each generating station will be applied to relevant output data before being used in the fuel-mix calculation. Transmission Loss Adjustment Factors (TLAFs) are calculated by EirGrid and SONI every year on a harmonised all-island basis for each individual generator participating in the SEM. Full information on TLAFs is set out on the EirGrid website.<sup>19</sup> The latest factors for generation in Ireland and Northern Ireland in 2009 are available on the All Island Project website.<sup>20</sup>

#### 3.3.2 Intermediary Arrangements

In the case where an Intermediary is appointed by a generator, in accordance with the conditions set out in the SEM Trading and Settlement Code, output is sold into the pool by the Intermediary on behalf of the generator.

For the avoidance of doubt, in such circumstances the energy will be included in the average pool fuel-mix calculation. With the exception of the case where the Intermediary is a supplier with a PPA, the associated energy shall be included in the supplier's fuel-mix calculation provided that the supplier purchases an equivalent amount of energy from the pool during the relevant disclosure period.

#### 3.3.3 Environmental Impact Information

It is proposed that the requirements relating to environmental impact information and promotional materials set out in the Decision Paper SEM/09/033 will apply to the interim methodology.<sup>21</sup> These requirements are reproduced for information in Appendix B.

#### 3.3.4 Presentation of Fuel-Mix and Environmental Impact Information

In order for fuel-mix and environmental impact information to be produced on bills and promotional materials by suppliers in the interim period, the presentation and format of bills must be decided upon. It should be noted that the Regulatory Authorities foremost concern is the presentation of reliable and accurate disclosure information by suppliers to all of their customers, as set out in Article 3(6) of Directive 2003/54/EC. The Regulatory Authorities will consider relevant responses in light of this principle. The Regulatory Authorities propose the following requirements:

1. the fuel-mix and environmental impact information must be provided by all suppliers in the format set out in this paper (see Appendix A) and must be supplied on either the front or back of all bills to customers (or communicated at least annually where bills are not used). This information can be augmented with the approval of the relevant licensing Regulatory Authority. Where this information is provided on the

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<sup>19</sup> This is available at -

<http://www.eirgrid.com/EirgridPortal/DesktopDefault.aspx?tabid=Transmission%20Loss%20Factors&TreeLinkModID=1445&TreeLinkItemID=47>

<sup>20</sup> <http://www.allislandproject.org/en/transmission.aspx?article=9bf9c6de-7d64-4c38-9448-2b3501e069ea>

<sup>21</sup> See sections 4.2.5 and 4.2.6 of the Decision Paper SEM/09/033

back of bills to customers, clear reference must be made to this on the front of all such bills. The form and detail of such information on bills will be subject to approval by the Regulatory Authorities, prior to its issue to final customers;

2. the default label format for presentation of fuel-mix and associated environmental information to final customers includes; a) the average fuel-mix; and b) information regarding CO<sub>2</sub> emissions and radioactive waste for both the All Island Market and that of the supplier for comparative purposes. The labels are set out in Appendix A of this paper and should be used by suppliers for the interim period;
3. where a supplier wishes to further sub-divide a fuel category, this may be done provided that a total percentage is included for each fuel category that the Regulatory Authorities require to be included in bills sent to final customers;
4. where a supplier offers a product(s) to specific customers on the basis of a particular fuel-mix or a given level of CO<sub>2</sub> emissions the supplier must present both the supplier's average fuel-mix and the fuel-mix supplied to the customer. The information must be reflective of the fuel-mix product sold to the customer and there should not be any double counting of fuel sources. So for example while one group of customers' fuel-mix will show a higher portion of renewables relative to the supplier's average other customers' fuel-mix will consequently show a lower portion of renewables relative to the supplier's average. Separate emissions figures should similarly be represented. Figures may be audited to ensure compliance with this requirement;
5. the categories of energy sources that may be used for the purpose of fuel-mix disclosure are coal, natural gas, peat, renewables, oil, nuclear and 'Other'. Energy sources (including those listed) which represent less than 2.5% of the total contribution to meeting the island's demand shall be listed as 'Other'; and
6. for consistency purposes, and in line with the EU Commission guidelines on this matter, the definition of 'renewable energy sources' set out in Directive 2001/77/EC shall apply for disclosure purposes i.e. '*renewable non-fossil energy sources (wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases)*'.<sup>22</sup>

The Regulatory Authorities welcome comments on these proposed requirements.

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<sup>22</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2001:283:0033:0040:EN:PDF>



## 4 Implementation

### 4.1 Provision of Required Evidence

In order to carry out the calculation of suppliers' disclosed fuel-mix information using the above approach, the following evidence would be required:

#### System Operators:

- Total amount of electricity (MWh) sold into the SEM pool for the Disclosure Period by all generating stations (and Intermediaries) by fuel type (inferred for dual fuel units) and adjusted by appropriate Loss Adjustment Factors.
- Total generation purchased from the SEM pool by each supplier (MWh) for the Disclosure Period.
- Total demand (MWh) by supplier for the Disclosure Period.
- Net imports/exports (MWh) to the island of Ireland for the Disclosure Period (interconnector flows).

#### Meter Operators:

- Total amount of generation (MWh) associated with all out-of-market purchases for the Disclosure Period (taking into account dual fuel generators) and adjusted by appropriate Loss Adjustment Factors.

#### Suppliers:

- Evidence in relation to generation associated with out-of-market purchases must be provided by suppliers.
- Actual output to the pool which is covered by the Northern Ireland Renewables Obligation. Any output from a generating station which is at the time accredited by Ofgem on NIAUR's behalf for the issuing of NIROCs will be deemed to be covered by the NIRO. Evidence of accreditation along with a relevant arrangement as defined by Article 34 (7) of the Renewables Obligation Order (Northern Ireland) 2009 between the generator and the supplier. Evidence of pool trades of energy subject to a PPA and evidence of purchases of an equivalent amount from the pool over the relevant disclosure period.
- Evidence of bilateral contracts and physical flow in relation to imports over the relevant disclosure period.
- Details of generation associated with Relevant Arrangements in Northern Ireland and PPAs in Ireland.

This information must be provided to the calculating body by the supplier

Others:

- Residual GB fuel mix figures applied to imported generation across the interconnector from BERR

**4.2 Calculating Body**

Having examined the implications of the preferred interim methodology set out above and having taken into account the relevant legal obligations and tight timelines involved, the Regulatory Authorities consider that the most suitable body to carry out the interim calculation of suppliers' disclosed fuel-mix and the average fuel-mix for the island of Ireland is the Single Electricity Market Operator (SEMO). The SEMO will utilise the data available to it in addition to information provided by other parties as discussed above.

## **5 Timeline for Implementation and Subsequent Calculations**

Following final receipt of comments from interested parties in June of this year, the Regulatory Authorities will review all relevant responses and produce a Decision Paper on this issue in July of this year. The SEMO will utilise emissions data for the 2008 Disclosure Period provided by the EPA in Ireland and DECC in the UK for data relevant to Northern Ireland. The SEMO will then endeavour to have all relevant supplier data compiled and all necessary calculations complete by the end of July in order that 2008 fuel-mix and environmental impact information can subsequently be produced on all customers' bills by suppliers.

SEMO will also ensure that a calculation for the 2009 Disclosure Period is carried out utilising an agreed interim methodology in March/April 2010. It is envisaged that the enduring methodology will be developed and implemented during 2009 and 2010 so that it may be employed for the 2010 fuel-mix disclosure calculation in 2011. The interim methodology will be employed until such time as the enduring method is established and operational.

## 6 Request for Comment

Comments are invited from interested parties on the proposals set out in this paper, specifically the options discussed and the Regulatory Authorities proposed approach for the calculation of fuel-mix disclosure in the SEM for the Interim Period. Comments on this paper should be submitted by **5pm Friday, 19<sup>th</sup> June, 2009** to Robert O'Rourke ([rorourke@cer.ie](mailto:rorourke@cer.ie)) and Frankie Dodds ([frankie.dodds@niaur.gov.uk](mailto:frankie.dodds@niaur.gov.uk)).

## 7 Appendix A: Presentation of Information

### 7.1 Figure 1: Default Presentation of Information

<b>Supplier Z Disclosure Label</b>		
<b>Applicable Period: January 20xx to December 20xx</b>		
<b>Electricity supplied has been sourced from the following fuels:</b>	<b>% of total</b>	
	<b>Electricity Supplied by Supplier Z</b>	<b>Average for All Island Market (for comparison)</b>
Coal	X %	X %
Natural Gas	X %	X %
Nuclear	X %	X %
Renewable	X %	X %
Peat	X %	X %
Oil	X %	X %
Other	X %	X %
<b>Total</b>	100 %	100 %
<b>Environmental Impact</b>		
CO <sub>2</sub> Emissions	X g per kWh	X g per kWh
Radioactive Waste	X g per kWh	X g per kWh
For more information on the environmental impact of your electricity supply visit <a href="http://www.SupplierZ.ie">www.SupplierZ.ie</a> or call 00XXX X XXX XXXX		

## 7.2 Figure 2: Presentation of Information with Individual Product Information

	<b>Supplier Z Disclosure Label Applicable Period: January 20xx to December 20xx</b>		
<b>Electricity supplied has been sourced from the following fuels:</b>	<b>% of total</b>		
	<b>Your Electricity</b>	<b>Average for Supplier Z</b>	<b>Average for All Island Market (for comparison)</b>
Coal	X %	X %	X %
Natural Gas	X %	X %	X %
Nuclear	X %	X %	X %
Renewable	X %	X %	X %
Peat	X %	X %	X %
Oil	X %	X %	X %
Other	X %	X %	X %
<b>Total</b>	100 %	100 %	100 %
<b>Environmental Impact</b>			
CO <sub>2</sub> Emissions	X g per kWh	X g per kWh	X g per kWh
Radioactive Waste	X g per kWh	X g per kWh	X g per kWh
	For more information on the environmental impact of your electricity supply visit <a href="http://www.SupplierZ.ie">www.SupplierZ.ie</a> or call 00XXX X XXX XXXX		

### 7.3 Figure 3: Presentation of Information with Additional Fuel Sub-Categories<sup>23</sup>

<b>Supplier Z Disclosure Label</b>		
<b>Applicable Period: January 20xx to December 20xx</b>		
<b>Electricity supplied has been sourced from the following fuels:</b>	<b>% of total</b>	
	<b>Electricity Supplied by Supplier Z</b>	<b>Average for All Island Market (for comparison)</b>
Coal	X %	X %
Natural Gas	X %	X %
Nuclear	X %	X %
Renewable:	X %	X %
• Wind	X%	X%
• Hydro	X%	X%
• Other	X%	X%
Peat	X %	X %
Oil	X %	X %
Other	X %	X %
<b>Total</b>	<b>100 %</b>	<b>100 %</b>
<b>Environmental Impact</b>		
CO <sub>2</sub> Emissions	X g per kWh	X g per kWh
Radioactive Waste	X g per kWh	X g per kWh
For more information on the environmental impact of your electricity supply visit <a href="http://www.SupplierZ.ie">www.SupplierZ.ie</a> or call 00XXX X XXX XXXX		

<sup>23</sup> Renewables breakdown is for illustrative purposes only. The supplier may sub-divide any fuel source in any manner at the supplier's discretion, in accordance with the requirements set out in this paper.

## **8 Appendix B: Environmental Impact Information**

### **8.1 Environmental Impact Information**

1. In order to determine the applicable environmental impact data, CO<sub>2</sub> emission factors will be provided to suppliers based on data obtained from generators, from the EPA in Ireland and from the Department of Energy and Climate Change (DECC) in the UK for data relevant to Northern Ireland. NIAUR are currently in discussions with the DECC on this issue.
2. Suppliers will multiply their fuel disclosure percentage per energy source by the associated CO<sub>2</sub> emission factor, as provided to them, to give the required information, i.e. CO<sub>2</sub> emissions in kg/MWh, by energy source.
3. This information will be updated, with respect to the relevant periods, by suppliers in each subsequent year on the 'Disclosure Date'.
4. The publication of fuel-mix and environmental impact information on either the front or back of bills must be concluded within two months from the date on which the required information is made available to suppliers.

### **8.2 Promotional Materials**

1. Promotional material is material handed out or sent directly to customers, excluding newspaper, magazine, bill-board and television advertisements. It includes welcome packs for new customers, materials provided by doorstep sellers seeking to attract new customers and material sent to households encouraging them to sign up to a supplier.
2. Information provided by suppliers on promotional materials regarding fuel-mix and associated environmental impact information should use the same basic format as that required to be made available in or with bills to final customers. References to such information provided on promotional material should refer to information provided in this format also.
3. The Regulatory Authorities will adopt a proportionate approach to the enforcement of this matter.