

Single Electricity Market

Fuel-Mix Disclosure in the Single Electricity Market: Calculation Methodology Consultation Paper

28th July, 2011

SEM – 11 – 058

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1 Introduction

1.1 Background

Fuel mix disclosure is required by Article 3(6) of Directive 2003/54/EC, replaced by Article 3(9) of Directive 2009/72/EC. The transposing legislation in Ireland¹ requires the Commission for Energy Regulation (“the CER”) to ensure suppliers provide reliable fuel mix information on all bills and promotional materials issued to customers. In Northern Ireland the transposing legislation² requires that licences issued by the Utility Regulator (“the UR”) include a condition requiring compliance with Article 3(6).

In April of 2009 the SEM Committee published the decision paper ‘*High Level Methodology for the Calculation of Fuel Mix Disclosure in the SEM*’ (SEM/09/033). This paper set out the SEM Committee’s intention to use a certificate based methodology for fuel mix disclosure in the SEM. However, at the time of publication Directive 2009/28/EC (the “Renewables Directive”) had not yet been finalised. As such, the detail of the methodology could not be set out in the absence of certainty regarding both the European legislation and the transposition of that legislation by the Oireachtas and the Northern Ireland Assembly. As Article 15 of the Renewables Directive has now been published and transposed in both jurisdictions, this paper proposes how the enduring disclosure methodology will operate.

In the absence of the legislative framework required to implement the enduring methodology interim arrangements were put in place. The current methodology for fuel mix disclosure in the SEM is set out in the decision paper ‘*Interim Arrangements: Fuel-Mix Disclosure in the SEM*’ (SEM/09/081). This will be replaced by the methodology resulting from this consultation process.

Please note that the CER has published a consultation paper (CER/11/139) along side this paper which proposes arrangements for the operation of a Guarantee of Origin (“GO”) system in Ireland. Respondents, particularly respondents in Ireland, are asked to consider both papers when submitting their response. GOs in Northern Ireland are administered by Ofgem on behalf of the UR, in accordance with the Renewables Obligation (Amendment Order) (Northern Ireland) 2010.

1.2 Related Documents

- High Level Methodology for the Calculation of Fuel Mix Disclosure in the SEM ([SEM/09/033](#))
- Interim Arrangements for Fuel-Mix Disclosure in the SEM ([SEM/09/081](#))
- [Renewables and CHP Register User Guide, Ofgem guidelines](#)
- CER/11/139 Consultation on the Supervisory Framework for Guarantees of Origin
- [Renewables Obligation \(Amendment\) Order \(Northern Ireland\) 2010](#)
- [Statutory Instrument 147 of 2011](#)
- [Directive 2009/28/EC](#)

¹ Regulation 25 of SI Number 60 of 2005

² Article 11A(9)(c) of the Electricity (NI) Order 1992 as amended by Article 14 of the Gas and Electricity (Internal Markets) Regulations (Northern Ireland) 2011.

1.3 Legislative Background

Article 3(9) of the Internal Market in Electricity Directive (Directive 2009/72/EC) (which replaces Article 3(6) of Directive 2003/54/EC) 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 regulators (or another competent authority) must take the necessary steps to ensure that the above information provided by suppliers to customers is reliable.

Article 3(6) of Directive 2003/54/EC has been transposed into national legislation in Ireland by Regulation 25 of S.I. No. 60 of 2005³. This requires the CER to ensure that all suppliers provide, on or in bills and promotional materials, 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(9) of Directive 2009/72/EC was transposed in Northern Ireland under Article 14 of the Gas and Electricity (Internal Markets) Regulations (Northern Ireland) 2011, which inserts Article 11A(9)(c) of the Electricity (NI) Order 1992 under which electricity licences, issued by the UR, shall include conditions to ensure that consumers of electricity have access to the information required by Article 3(9) of the Directive.

It is understood that transposition of Directive 2009/72/EC is progressing in Ireland but there is unlikely to be any material impact on the legislative framework regarding fuel mix disclosure. The SEM Committee has determined that the disclosure of information to customers by suppliers in the all-Island market is a SEM matter.

Directive 2001/77/EC introduced the concept of GOs; several Member States have already commenced using these for fuel mix disclosure purposes. The Renewables Directive⁴ replaces Directive 2001/77/EC. Article 15 of the Renewables Directive further develops GOs which were introduced in Directive 2001/77/EC. The Renewables Directive makes several clarifications regarding GOs which should be noted. Firstly, there is no connection between the calculation of national targets and fuel mix disclosure. Secondly, the sole purpose of GOs is fuel mix disclosure. Thirdly, the GO does not need to follow the physical flow of the electricity to which it relates. Lastly, GOs have a lifetime of 12 months and are fully transferable throughout Europe⁵.

1.4 Structure of the Paper

Section 2 provides the introduction and background information. The SEM Committee's proposals are set out in Section 3. Section 4 outlines the conclusion and next steps. The appendices contain the presentation format to be used by suppliers, an overview of the Northern Irish administrative arrangements for guarantees of origin and illustrative examples

³ S.I. 60 of 2005 European Communities (Internal Market in Electricity) Regulations 2005

⁴ Transposed by the [Renewables Obligation \(Amendment\) Order \(Northern Ireland\) 2010](#) in Northern Ireland and by SI 147 of 2011 in Ireland.

⁵ "Europe" in this paper refers to the EU27 plus those non-EU European countries which have implemented GOs to the standard required by Article 15 of the Renewables Directive. The term "Member State" is used for convenience but should be read in the same context.

to help explain the interactions of the varying life-cycles of the GOs issued in Ireland and Northern Ireland.

1.5 Responses to this Consultation

Comments are requested from interested parties on the matters raised in this paper, specifically the SEM Committee proposals. Comments on this paper should be submitted by **5pm Friday, 26th August, 2011** to Robert O'Rourke (rorourke@cer.ie) and Frankie Dodds (Frankie.Dodds@uregni.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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Please note in Northern Ireland information provided in response to this consultation, including personal information may be subject to publication or disclosure in accordance with the access to information regimes; these are primarily the Freedom of Information Act 2000 (FOIA) and the Data Protection Act 1998 (DPA). If you want the information that you provide to be treated as confidential, please be aware that, under the FOIA, there is a statutory code of practice with which public authorities must comply and which deals, amongst other things with obligations of confidence.

In view of this, it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the UR.

1.6 Terms Used

Administrative Body	means the body designated to supervise the issuance, transfer and cancellation of GOs;
Calculating Body	means the body which undertakes the fuel mix disclosure calculation;
cancel	means the act, carried out by the Administrative Body, of putting the certificate beyond use or transfer;

Disclosure Period	The calendar year, 1 st January to 31 st December.
expiry	means the period immediately after the life of the GO has passed, this is 12-months in Ireland and 16-months in Northern Ireland.
Guarantee of Origin	as defined in Directive 2009/28/EC 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;
Interim Arrangements	means the arrangements, as outlined in SEM/09/081, that will apply for the Interim Period;
Interim Period	means the period in which the arrangements outlined in SEM/09/081 will apply;
Residual Mix	means the average fuel-mix of the island excluding energy attributed to suppliers in accordance with these proposals;
transfer	means the movement of a certificate from one participant to another;
use	means, in relation to a certificate, a supplier claiming the associated energy for the purposes of fuel mix disclosure, a certificate may only be used once;

2 Proposed Methodology

2.1 Introduction

In its decision regarding the high level methodology, which will replace the Interim Arrangements, for the calculation of fuel mix disclosure in the SEM, the SEM Committee set out the general objectives of fuel-mix disclosure.

These were that the methodology should;

- ensure compliance with governing legislation;
- facilitate ease of comparison, by customers on the island, of information provided by suppliers in accordance with the disclosure requirement;
- be implemented in a manner that minimises costs to market participants and final customers; and
- be compatible with the other functions and duties of the Regulatory Authorities.

Separately the European Commission set out the following objectives⁶:

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

As discussed above, the Renewables Directive introduces requirements around GOs which have a considerable impact on the methodology that must be employed for fuel mix disclosure.

GOs are not tied to the physical flow of the electricity to which they relate. Once a GO is issued there is no geographic link between the GO and the physical electricity because the GO can be transferred anywhere else in Europe without regard to interconnection or power flows. Similarly there is no link⁷ between the time the physical electricity is consumed and when the GO is used; the GO has a 12-month lifespan from the date of production which raises the possibility of it being valid in a disclosure period other than that in which the generation actually took place.

⁶ These four objectives are set out in the EU Commission's communication 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'.

⁷ While the physical electricity and the attributes move separately they are linked at the point of issue as only one GO can be issued in respect of each 1MWh generated.

Given this disconnect between the physical flow of electricity and the attributes of that electricity the SEM Committee proposes to base the fuel mix disclosure calculation on certificates and assignments between generators and suppliers without regard to the physical flow of that electricity. This is in keeping with the SEM Committee's decision in SEM/09/033 which stated that the fuel mix calculation would be based on certificates. That said, it should be noted that this explicit disconnect between the physical flow of electricity and the certificate was not discussed in the SEM Committee's high level decision paper. However, since the publication of that paper the Renewables Directive has been published and it makes clear that placing restrictions on the use of GOs based on the physical flow of the electricity is contrary to the Directive. There is no such certificate based system for non-renewable generation provided for in European law. Therefore, the SEM Committee proposes assignments of generation attributes between generators and suppliers to facilitate suppliers differentiating their fuel-mix in the absence of a legal framework for non-renewable certificates.

2.2 Overview of Proposed Approach

The high level methodology decision stated that the enduring approach to the fuel mix disclosure calculation would be based on certificates, to the extent that generation is covered by certificates. The Disclosure Period was decided on as the calendar year. It was also decided that suppliers would have two months from the publication of the fuel mix disclosure to include the required information on all bills issued to customers.

Therefore, the approach proposed in this paper sets out the detail of how the disclosure calculation based on certificates will be carried out. However, an important caveat with respect to the high level methodology decision must be made. As discussed above since its publication the Renewables Directive has been published. This directive makes clear that GOs need not follow the physical flow of energy requiring a disconnect between the attribute and the physical energy to be facilitated in disclosure calculations. Accordingly, the SEM Committee proposes that GOs may be used for disclosure without reference to the physical flow of the energy associated with it. Following from this is the proposal to use the European residual fuel mix as opposed to the residual fuel mix of Great Britain as stated in the high level methodology. The logic of using the British residual fuel mix was that physical imports were being considered. But the consideration of physical imports is no longer applicable given the disconnect between the certificate and the physical energy it represents. It should also be noted that suppliers have the option of importing attributes from other Member States, including GB, through GOs.⁸

Further considerations are that non-renewable certificates are not provided for in Irish or Northern Irish legislation, Irish GOs are restricted to those relating to renewable generation not covered by the Irish PSO and generators are under no obligation to request a GO. Therefore, there will be some generation attributes covered by GOs but some will not. Specifically, non-renewable generation, Irish PSO supported renewable generation, and generation for which Irish and Northern Irish renewable generators do not request a GO. Therefore there needs to be a consistent means of accounting for generation whose attributes are covered by GOs and those that are not.

⁸ Subject to approval from the Regulatory Authorities, certificates relating to non-renewable generation may be accepted by the Calculating Body from other Member States provided they are accurate, verifiable and reliable.

The SEM Committee proposes to provide for generator units to assign their generation attributes to suppliers for the purposes of fuel mix disclosure. These assignments will not need to relate to the physical flow of the electricity and the commercial arrangements relating to the electricity and/or attributes will not be considered by the Calculating Body. The generator in question will notify the Calculating Body of the supplier their generation attributes should be associated with for the purposes of fuel mix disclosure. These generation attributes will then be included in the supplier's fuel mix disclosure unless the supplier indicates otherwise in their annual submission.

It is proposed that the Single Electricity Market Operator (the SEMO) will be the Calculating Body. The Calculating Body will calculate the fuel mix disclosure figures once a year. The Calculating Body will maintain a register of all generator units and supplier units on the island. In the first instance meter data received by the Calculating Body will be used to allocate generation attributes to the generator units, these attributes may then be assigned at the request of the generator. At regular intervals throughout the year generator units will have the opportunity to assign their generation attributes to a supplier unit. At the end of the disclosure period suppliers may use the generation attributes assigned to them for their disclosure. Northern Irish renewable generators may request a GO from Ofgem. These may then be transferred to suppliers and suppliers can present them to the Calculating Body to be used in the annual disclosure calculation. Irish renewable generators who are not in receipt of support may request a GO from the SEMO. This GO can be transferred to a supplier for disclosure.⁹

Where a supplier's demand is greater than the sum of submitted GOs and assigned generation attributes the Residual Mix will be applied. The Residual Mix is the portion of the all island fuel mix which has not been claimed by a supplier. Because GOs can travel throughout Europe it is possible that the island will see a net import or export of GOs resulting in a mismatch between generation attributes accounted for in the fuel mix calculation and total demand. When there is a deficit of generation attributes the European Residual will be included in the Residual Mix, when there is a surplus of generation attributes the surplus will be included in the European Residual (where it may be used by Members States with a deficit).

2.3 Assignment of Generation Attributes

The SEM Committee considers it in keeping with the objectives of disclosure that there be some means of suppliers differentiating their fuel-mix in relation to the non-renewable generation attributes on the island not just renewable generation attributes covered by a GO. However, there is no legal provision to use certificates for non-renewable generation and given the nature of the SEM there is no direct link between the energy sold into the pool by generators and the energy purchased from the pool by suppliers.¹⁰

Therefore, the SEM Committee proposes to facilitate generators assigning the attributes associated with their generation to suppliers of their choice. It is considered that this is consistent with the SEM Committee's objectives in particular allowing customers to make

⁹ Please refer to the CER consultation paper for more information.

¹⁰ The use of Contracts for Difference for this purpose has previously been decided against by the SEM Committee.

meaningful comparison between suppliers. It is also consistent with the approach that must be taken in relation to energy covered by a GO – that the movement of the attribute is considered separately to the movement of the physical electricity.

In order for a generator or supplier to avail of this provision they must first register with the Calculating Body and provide any information they reasonably require to ensure that the resulting fuel mix calculation will be reliable. This will include for generators:

- MPRN associated with the metered generation;
- the fuel source(s);
- the identity of the installation (name, address and generator unit ID¹¹);
- the grid location of the installation;
- the capacity of the installation;
- whether the generator is not covered by a national support scheme (if so which);
- the date on which the installation became operational¹²; and
- the authorised persons for all communication with the Calculating Body regarding disclosure.

And for suppliers

- the identity of the supplier (supplier unit ID); and
- the authorised persons for all communication with the Calculating Body regarding disclosure.

It is proposed that once a quarter, and at the end of the Disclosure Period, generators will be provided with the opportunity to assign their generation attributes to a supplier of their choice. The generator unit will notify the Calculating Body of the energy (MWh), indicating the fuel source, start and end date of production and the supplier unit to which it is to be assigned. The Calculating Body will then verify this against meter data provided by the Meter Data Providers and ensure that the same energy has not been previously assigned. The generator may choose the MWh quantity to apply to the assignment. Accordingly that quantity of metered generation will be assigned to the supplier. Suppliers may subsequently reassign these attributes to other suppliers.

In the case of dual fuel generators the fuel type associated with the generation will be deemed to be the fuel type indicated by the generator in the assignment. The emissions data received from the EPA and DOE¹³ will be used by the Calculating Body to establish the fuel usage of each generator over the year ex-post. Where there is a disparity between the assignments and the emissions data regarding fuel usage throughout the year the fuel type of the assignments will be proportionately adjusted. These adjustments will be applied to the unassigned generation in the first instance and then proportionately across all assigned generation. Those dual fuel generators who are not required to make submissions in relation to their emissions must submit independent verification as to their total fuel usage, by fuel type, during the Disclosure Period. In the case that a generator takes part in the process of assigning generation attributes to a supplier but then does not submit the required verification by the submission deadline (proposed to be 31st March) the relevant generation

¹¹ Where applicable

¹² The date of the first metered export

¹³ Environmental Protection Agency (Ireland) and the Department of the Environment (Northern Ireland).

attributes will be included in the Residual Mix. The Calculating Body will reasonably apportion fuel types to such generation based on available information held by the system operators.

2.4 Calculation of a Supplier's Fuel-Mix

The calculation will be based on suppliers' annual submissions. A submission must be made in respect of each supply licence held even where a single company holds more than one licence. The presentation of the fuel-mix figures may however be disclosed on a company basis as proposed in this paper.

It is proposed that suppliers' fuel mix be calculated in the following manner.

1. The SEMO will inform each supplier of their metered demand and the generation attributes assigned to them.
2. Each licensed supplier will then provide the SEMO with their disclosure submission. The submission will include all GOs¹⁴ they wish to use for the relevant disclosure period and confirmation that the generation attributes assigned to them are correct.
3. The total generation attributed set out in the supplier's submission is used to meet the supplier's demand.
 - Where the supplier has more generation attributes than demand the surplus will be put into the Residual Mix (renewable generation attributes will be assigned to the supplier first followed by thermal generation attributes in ascending order of emissions per MWh). The supplier will be notified if its submission exceeds its demand.¹⁵
 - Where the supplier has more demand than contained in the submission the Residual Mix will be used to meet the remaining demand.

Therefore, it is proposed that a supplier's fuel mix be made up of the total number of valid GOs and generator assignments plus a proportionate amount of the Residual Mix.

2.5 Calculation of the Residual Mix

It is proposed that the Residual Mix be calculated in the following manner:

- any generation attributes not assigned to, and submitted by, a supplier;
- surplus GOs declared by suppliers¹⁶;
- unused and expired certificates which were active in the relevant Disclosure Period;
and

¹⁴ Only GOs issued in accordance with the Renewables Directive will be accepted.

¹⁵ For the avoidance of doubt, this places no obligation on SEMO to facilitate a change to the supplier's submission after the submission deadline has passed.

¹⁶ This refers to GOs submitted by suppliers which are not required to meet their demand, suppliers are not required to include in their submission all GOs that they hold.

- where the all-island demand is greater than the sum of all the suppliers' declarations plus the Residual Mix (based on the above inputs) the European Residual Mix will be applied to the remaining demand and included in the Residual Mix. In the case that demand is less than the sum of all the suppliers' declarations the surplus will be included in the European Residual Mix.

The Regulatory Authorities, and the Calculating Body, intend to work with our European colleagues to calculate a European Residual Mix. The European Residual Mix is a fuel mix made up of the surplus fuel mixes from all the Member States which have accounted for more generation attributes than they have demand in a disclosure period. Please see section 2.13 for more information on this proposal.

2.6 Disclosure Period

The SEM Committee has previously decided¹⁷ that the Disclosure Period is the calendar year, beginning 1st January and ending 31st December each year. All data is considered in aggregate over this period and not in smaller time intervals for the calculation of the fuel-mix.

Using the calendar year as the Disclosure Period is in line with European practice generally. All Member States, with a few exceptions¹⁸, use the calendar year as the Disclosure Period. A notable exception is Great Britain and the implications of this are discussed in the following section. The SEM Committee considers it important that there is harmonisation in Disclosure Periods throughout Europe given the pan-European nature of GOs. Differing Disclosure periods could affect the liquidity of the market for GOs, could encourage suppliers to engage in regulatory arbitrage and would make the calculation of a European Residual mix particularly difficult.

2.7 Timings of the Calculation

As discussed above the Disclosure Period will be the calendar year. The SEM Committee wishes to ensure the timely publication of the all-island fuel mix disclosure figures. Other issues which have been considered in relation to this proposal are that suppliers should have sufficient time to acquire GOs to meet their demand, the availability of accurate metering data, the availability of emissions figures and that the calculation of the European Residual Mix can be accommodated. Appendix C has examples of how the proposed timings will work in practice.

The SEM Committee proposes that suppliers submit their GOs three months after the end of the disclosure period; the 31st March each year. By the end of April the all-island surplus or deficit will be calculated and applied to the European Residual Mix calculation. It is current practice¹⁹ that the European Residual Mix be determined by 15th May. This would allow for the publication of the All-island disclosure figures in 1st June each year, subject to the timely completion of the European Residual Mix calculation.

¹⁷ SEM/09/033

¹⁸ Austria, Estonia and Great Britain use the financial year. Portugal uses a rolling 12 month period.

¹⁹ *Best Practice Recommendations For the implementation of Guarantees of Origin and other tracking systems for disclosure in the electricity sector in Europe* (Version 1.1, 8th April 2011) - Reliable Disclosure Systems for Europe, www.reliable-disclosure.org

The most up-to-date meter data available at the time of the calculation, sourced from the meter data providers, will be used in the calculation. Emissions figures will be sourced from the EPA in Ireland and from the DOE in Northern Ireland. It is expected these figures will be available by May of each year.

The administrative arrangements in place in relation to GOs for Northern Irish suppliers are discussed in Appendix B. However, it should be noted that as Ofgem administers GOs on the Utility Regulator's behalf the difference in Disclosure Periods between Great Britain and Northern Ireland, in addition to the 12-month lifespan of a GO, does create an issue. This has been discussed with Ofgem. Accordingly the administrative arrangements are such that Northern Irish suppliers must "retire"²⁰ their GOs before submitting them to the SEMO. 19 months after the month of the generation Northern Irish GOs will be cancelled on Ofgem's register at which point the GOs cannot be used for fuel mix disclosure.

It is proposed that the SEMO, as the Calculating Body, check the Ofgem register on 31st March each year to verify the information on the register with the suppliers' submissions. Only GOs retired on the Ofgem register prior to 31st March will be included in the fuel mix disclosure calculation.

2.8 Small-Scale Generation including Micro-Generation

It is highly probable that small-scale generators will have difficulty reaching the 1MWh threshold permitting them to be issued with a GO on a frequent basis. Only metered generation exported to the grid will be considered for disclosure purposes.

The CER has issued proposals regarding the treatment of generation metered at less than 1MWh in the accompanying paper on the Supervisory Framework for Guarantees of Origin.

Ofgem's approach is to issue GOs annually to generators with a capacity of 50kW or less. However, the difference in Disclosure Periods makes this approach an issue. These generators will be issued GOs based on generation over the financial year (1st April – 31st March) and so will be actually issued with the GOs by June (generators have until May to make the request) which allows sufficient time to redeem the GOs before Ofgem's 1st July deadline for disclosure but is outside the timeframe for the calculation proposed above.

The SEM Committee proposes to include such generation attributes in the subsequent Disclosure Period. Therefore, micro-generation issued a GO for the financial year April 2012 – March 2013 would receive the GO by June 2013. The relevant supplier would retire that GO on Ofgem's register in June 2013 and the Calculating Body would record the GO as used in 2013. The GO would then be used for the calculation of the Disclosure Period 2013 (i.e. the calculation taking place in the first half of 2014). The onus is on the supplier in question to notify the Calculating Body of the GO. The alternative option would be to postpone the calculation sufficiently to allow for the inclusion of annual GOs issued at the end of the financial year.

²⁰ This is an arrangement whereby Northern Irish suppliers will have the option to retire their GOs. Retiring the guarantee of origin means that the supplier has signalled their intention to use it for disclosure and cannot transfer it but it is not yet cancelled. Retired guarantees of origin will be included in the SEM disclosure calculation and deemed cancelled by Ofgem 19 months from the month of the associated generation. These arrangements are necessary to facilitate the administration of Northern Irish guarantees of origin by Ofgem.

2.9 Information to be Provided to the Calculating Body

The following parties are required to provide the information outlined below to the Calculating Body. In order to allow the calculation to be completed in a timely manner, this information is required to be provided to the Calculating Body within the timelines notified to the participant by the Calculating Body. Each year the Calculating body will issue a request for this information in a form it reasonably considers appropriate.

Single Electricity Market Operator²¹:

- Total amount of electricity (MWh) sold into the SEM pool for the Disclosure Period by all generating stations (and Intermediaries).
- Total generation purchased from the SEM pool by each supplier (MWh) for the Disclosure Period.
- Total demand²² (MWh) by supplier for the Disclosure Period.

Meter Data Providers:

- Total amount of generation (MWh) associated with all out-of-market purchases for the Disclosure Period.

Suppliers:

- A list of all GOs suppliers wish to be used for the Disclosure Period.
- A list of all generation attributes assigned to the supplier that the supplier wishes to use for the Disclosure Period.
- The total amount of energy (MWh) relating to a particular fuel type (e.g. renewables) which had been guaranteed to be supplied to customers at any time during the Disclosure Period, insofar as such guarantees were made.
- Any further information that may be required by the Calculating Body to verify the supplier's claims in relation to their fuel mix disclosure.

²¹ As proposed in this paper the SEMO will be acting as the Calculating Body and accordingly make use of the information available to it.

²² Settlement demand will be used. Please note this includes the residual allocation of the error demand unit.

All generators not required to report emissions for the purposes of the ETS²³

- A list of fuels used by the generator over the Disclosure Period.
- Where more than one fuel was used the total fuel usage, by fuel type.
- The meter data providers will assist the Calculating Body in collating this data.

Others:

- Emissions figures will be sourced from the EPA in Ireland and the DOE in Northern Ireland. The Regulatory Authorities will facilitate the provision of this information.

2.10 Loss Adjustment Factors

It is a reality of the electricity system that in transmitting energy from the generator to the customer there is lost energy. These losses must be accounted for in order to maintain a reliable disclosure system, notwithstanding the disconnect between GOs, where they apply, and the physical flow of the energy.

The Interim Arrangements use the TLAf methodology in place in the SEM for the relevant disclosure period. However, there is a difficulty in using the methodology that is used in the SEM. The difficulty is that, as discussed above, the GOs used to meet demand will not relate temporally or geographically to the generation that physically supplied the customer. All GOs will have to be treated on an equal basis regardless of their country of origin or grid location in that country.

Therefore, the SEM Committee proposes that a uniform factor is applied to demand used in the disclosure calculation that represents the difference between total metered generation (adjusted for net imports) and total metered demand²⁴ occurring during the Disclosure Period. The Calculating Body shall inform suppliers of this factor at the time it issues the request for submissions as per 2.9. To be clear, the losses will be accounted for only at the point of calculating the fuel mix not before and will not apply to any GO at the point of issue or at the point of export.

2.11 Reconciliation

It is a feature of the industry that initial metered values are subsequently corrected. As discussed above the best available data will be used in the calculation however the initial allocation of generation attributes to generators will be based on initial meter data. This raises the possibility that the values of the attributes assigned to suppliers during the year will be different to the values used by the Calculating Body in the calculation.

To correct for this the Calculating body will revise the values of the attributes based on best available meter data once a quarter (coinciding with the assignments of attributes discussed in Section 2.3) and at the time of the calculation.

²³ Emissions Trading Scheme

²⁴ Settlement demand

2.12 CO₂ Emissions

Each year the Calculating Body will calculate CO₂ emission factors for each fuel-type. The emissions factors will be based on information received from the EPA and DETI and on metered generation²⁵ for the Disclosure Period. The resulting emissions factors will be applied to suppliers' fuel mixes to produce a figure for CO₂ emissions per kWh which will be published along side the fuel mix figures.

2.13 European Residual Mix

The GO scheme required by the Renewables Directive provides for a pan-European market in GOs where they can freely travel between Member States. Furthermore, Member States have no ability to refuse a GO from another Member State unless there is a question over its reliability.

However, this European market for GOs must exist alongside national regimes of fuel mix disclosure and differing approaches to the implementation of the previous and current Renewables Directives (2001/77/EC and 2009/28/EC). A further complication is that Article 15 of the Renewables Directive does not cover thermal generation and such generation attributes may continue to be linked to the physical flow of the associated energy. Therefore, national disclosure calculations in Europe will be problematic for Member States.

The lack of a harmonised approach in Europe to disclosure will create disparities at a national level where demand will not be equal to energy accounted for in any given period. At a European level all energy should be able to be accounted for (although due to differences in calculation methodologies this may not be the case).

To illustrate this point it would be possible for several renewable generators in country A to transfer their GOs to suppliers in country B, however there is no equivalent movement of thermal generation attributes. So while physically supply has equalled demand in both countries in country B suppliers have disclosed GOs from country A to meet their demand and there is a large amount of thermal generation attributes which cannot be assigned to any customer. While in country A there is no way to account for the renewable energy that was exported by way of GOs but that was physically consumed (and sold) in country A. However, if both countries were to "export" and "import" their respective surplus and deficit generation attributes the surplus thermal generation attributes could be used to meet the unaccounted for demand in country A. The inherent inconsistency, at a national level, between a virtual trade in the attributes of electricity and the physical trade in the electrons they represent combined with different approaches to disclosure requires a solution at a European level.

The Regulatory Authorities have been in discussions with several of our European colleagues to help address the issue to the degree possible. Of particular note is the Reliable Disclosure Systems for Europe (RE-DISS) project which is supported by Intelligent Energy Europe²⁶. Part of this project is the annual calculation of the European Residual Mix.

²⁵ Please note that this relates to all metered generation over the calendar year and is unrelated to the GOs being included in the disclosure calculation.

²⁶ This is an EU programme overseen by the European Commission see <http://ec.europa.eu/energy/intelligent/>

Each participating country will submit their deficit or surplus, the surpluses will be combined to form the residual mix and then allocated to the countries with deficits; in this way the disclosure system can be consistent at the European level. A European Residual Mix will be in place prior to the implementation of the SEM Committee's decision on these proposals. A pilot calculation for the European Residual was conducted in 2010 and a calculation was carried out in 2011.

The Best Practice Recommendations that have been prepared by the RE-DISS project team have been taken into account in the preparation of the SEM Committee's proposals. However, the RE-DISS recommendations have no legal standing and are not in any way binding on the Regulatory Authorities or the SEM Committee nor does the SEM Committee intend to adopt them in full.

The SEM Committee proposes that the Regulatory Authorities and the Calculating Body participate in the calculation of the European Residual Mix and proposes to include the European Residual Mix in the calculation of the Residual Mix. This will require aggregate demand and aggregate generation figures (broken down by fuel type) to be sent to the RE-DISS project team by the end of April each year and accordingly require adherence to the timeline set out in Section 2.7. In the absence of the application of a European Residual Mix any surplus on the island would not be disclosed at all and any deficit would be represented in the fuel mix to final electricity customers as "unknown".

It should be noted that the calculation of the European Residual is unlikely to be fully robust. This problem is unavoidable and stems from the fact that it relies on the voluntary input of the national competent bodies. The methodologies used, and their robustness, varies between Member States. And so, while the SEM Committee is confident that the RE-DISS team will make every endeavour to ensure the calculation is as robust as possible, the SEM Committee acknowledges that it is not possible to ensure the robustness of the calculation. For this reason a formal calculation of the European Residual Mix would be beneficial.

Furthermore, it should be noted that the RE-DISS project will terminate in the next few years at which point a successor will have to be found to carry out the calculation. The Regulatory Authorities will continue to engage with the European Commission and the other appropriate national authorities to advance the SEM Committee's view that a formal calculation of the European Residual Mix should be conducted by an objective party in the context of the requirements of the Directives regarding GOs and fuel mix disclosure. In the absence of a European Residual Mix calculation the SEM Committee proposes to represent any deficit with the label "unknown".

It is the SEM Committee's view that applying the European Residual Mix is the approach most consistent with the objectives of disclosure and its pan European nature. Were a significant portion of customers' fuel mix be represented as "unknown", it would be somewhat unhelpful to customers and may cause confusion. Also as the issue of disclosure continues to be addressed at the European level the issues relating to the potential lack of robustness of the calculation will diminish.

Views are sought on the SEM Committee's proposals in relation to its participation in the calculation of a European Residual Mix and its use in the fuel mix disclosure calculation.

2.14 Calculating Body

Having taken into account the relevant legal obligations and timelines involved, the SEM Committee considers that the most suitable body to carry out the calculation of fuel-mix for the island of Ireland is the Single Electricity Market Operator (SEMO). The SEMO will utilise the data already available to it in addition to information provided by other parties as discussed in this paper. The costs of conducting the calculation will be covered through the SEMO Price Control, as approved by the SEM Committee. It should be noted this does not include the specific additional costs associated with the operation of the guarantees of origin system in Ireland.

It will be the SEMO's responsibility to inform the Regulatory Authorities where it has doubts about the accuracy, reliability or veracity of any certificate(s) presented to it. This includes doubts in relation to the process used to issue, transfer and cancel the certificate(s).

2.15 Publication of Fuel Mix Disclosure

Upon completion of the disclosure calculation the Calculating Body will inform each supplier of their own fuel mix and the all-island average. Suppliers will have five working days to raise any queries with the result of the calculation. The Calculating Body will then finalise the disclosure figures and submit them, along with any unresolved supplier queries, to the Regulatory Authorities.

The Regulatory Authorities will review the calculation and publish the disclosure figures – which include both the fuel mixes and associated emissions - for all suppliers operating in the retail market as well as the average figures for the island. Once the figures are published suppliers must ensure that they include their disclosure figures, as published, on all bills within two months. Suppliers shall provide a sample copy of a bill to the relevant Regulatory Authority. As required by the proposals below (Section 2.17) all promotional materials also must include the new figures within two months of publication

2.16 Presentation

It should be noted that the SEM Committee's foremost concern is the presentation of reliable and accurate disclosure information by suppliers to all of their customers, as set out in Article 3(9) of Directive 2009/72/EC. The SEM Committee proposes that the following requirements shall apply to the presentation of fuel-mix disclosure and environmental impact information:

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 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 licensing Regulatory Authority, 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 CO₂ emissions and radioactive waste for both the supplier and the all island Market for comparative purposes. The labels are set out in Appendix A of this paper;

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 CO₂ emissions the supplier must present both the supplier's average fuel-mix and emissions and the fuel-mix and emissions 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 by the relevant licensing Regulatory Authority to ensure compliance with this requirement;
5. the categories of energy sources that will 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 1% of the total contribution to meeting the island's demand may be listed by the Regulatory Authorities as 'other';
6. the definition of 'renewable energy sources' set out in Directive 2009/28/EC shall apply for disclosure purposes i.e. 'energy from renewable sources' means energy from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases; and
7. where a supplier operates as a single business but holds separate licences (such as a supplier that operates in both jurisdictions) that supplier may, subject to the approval of the Regulatory Authorities, present the company's all-island fuel-mix on bills and promotional material. However, to assist with verification of data and jurisdictional requirements each licensed entity must separately submit the required information to the Calculating Body.

On a related issue the UR consider that the current format by which fuel mix is provided to Northern Ireland customers may require interpretation. On that basis, the UR may suggest Northern Ireland suppliers voluntarily include a "green star" rating on bills to Northern Irish customers in the interest of simplification of presentation. This principle will allow for an increased number of stars indicating suppliers who provide a higher percentage of electricity from renewable sources.

2.17 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 salespeople 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. The Regulatory Authorities' foremost concern on this matter is that customers are given accurate and reliable information on suppliers' fuel-mix when considering their choice of supplier.
4. In complying with the above suppliers must ensure they do so in a manner that is in compliance with the relevant obligations regarding vulnerable customers.

2.18 Implementation

It is proposed that the decision paper resulting from this consultation process will supersede the Interim Arrangements decision paper and the High Level Methodology decision paper.

The Calculating Body will be directed by the SEM Committee to put in place the systems and processes required for the implementation of the decision paper to follow this consultation process. Accordingly, the SEMO will prepare and publish the procedures required to implement the decision resulting from this consultation. The Regulatory Authorities shall approve these procedures and any revisions to same from time to time.

Each Regulatory Authority may enforce the resulting decision by way of supply licence conditions and may verify and audit compliance from time to time.

2.19 Interim Period

The Interim Arrangements set out in SEM-09-081 will be superseded fully by the enduring methodology as outlined in the decision paper resulting from this consultation process. As such the Interim Arrangements will remain in place until the full implementation of the enduring arrangements proposed in this paper and the implementation of the Supervisory Framework for Guarantees of Origin in Ireland.

Following the publication of the SEM Committee's decision paper on the enduring arrangements the Regulatory Authorities shall work on the implementation of these arrangements. Upon completion of this implementation the SEM Committee will publish a note formally ending the Interim Period. It is intended that the 2012 calculation (i.e. for the disclosure period 2011) will be carried out under the enduring arrangements.

3 Conclusion

3.1 Summary of Proposals

The SEMO will be responsible for the calculation of the annual fuel mix disclosure figures. Fuel mix disclosure will be based on GOs and generation attributes assigned to suppliers. Fuel mix disclosure need not reflect the physical flow of the associated energy. GOs will be issued, transferred and cancelled in accordance with the relevant legislation. Suppliers will submit their GOs to the SEMO on an annual basis. Generation attributes not covered by a GO may be assigned by the generator to a supplier, these transfers will be facilitated by the SEMO once a quarter. At the end of the Disclosure Period (one calendar year) the SEMO will inform suppliers of their demand and the generation assigned to them. Suppliers will then have until the 31st March to make their submissions to the SEMO. This submission must detail all of the GOs and assigned generation attributes they wish to use for their fuel mix disclosure. Where a supplier's demand exceeds their submission the Residual Mix will be applied to the remainder. In the opposite case the surplus will be added to the Residual Mix. The Residual Mix will be made up of all unclaimed energy generated during the disclosure period, any generation attributes which were issued with a certificate will not be included unless it was submitted to SEMO but was surplus to meeting the relevant supplier's demand. Where total generation attributes is less than total demand (i.e. there has been a net export of GOs) the European Residual Mix will be used. In the opposite case the surplus Residual Mix will be included in the European Residual Mix. The European Residual Mix will consist of all surplus generation attributes from Member States and will be applied to all Member States experiencing a deficit. The SEMO will conduct the calculation and will inform suppliers of their fuel mix. Suppliers will have five working days to raise any issues. The emissions factors will be calculated by SEMO based on the emissions figures provided by the EPA and DOE these are available at the end of May each year – allowing for the publication of the disclosure figures in June of each year. Suppliers will be required to include the new disclosure figures on bills within two months of their publication.

3.2 Next Steps

The Regulatory Authorities intend to hold an industry workshop during the consultation period to discuss the proposals set out in this paper. Further information regarding this workshop will be published on the All Island Project website in due course. The SEM Committee will review the responses to this paper and will publish a decision paper in October of this year. Following the publication of the decision paper the administrative arrangements will be put in place for the disclosure calculation. In tandem with this the CER will put in place the arrangements for the issue, transfer and cancellation of GOs in Ireland. It is anticipated that this implementation will be complete by the end of this year and that the 2012 calculation (i.e. for the disclosure period 2011) will be carried out under the enduring arrangements. However, the Regulatory Authorities note that the publication of the 2011 fuel mix disclosure figures may be delayed should there be difficulties implementing the necessary processes.

3.3 Responding to the Consultation

Comments are requested from interested parties on the matters raised in this paper, specifically the SEM Committee's proposals. Comments on this paper should be submitted by **5pm Friday, 26th August, 2011** to Robert O'Rourke (rorourke@cer.ie) and Frankie Dodds (Frankie.Dodds@uregni.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.

Appendix A: Presentation of Information

Figure 1: Default Presentation of Information

Supplier Z Disclosure Label		
Applicable Period: January 20xx to December 20xx		
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 %
Other	X %	X %
Total	100 %	100 %
Environmental Impact		
CO ₂ Emissions	X g per kWh	X g per kWh
Radioactive Waste	X g per kWh	X g per kWh
<p>For more information on the environmental impact of your electricity supply visit www.SupplierZ.ie or call 00XXX X XXX XXXX</p>		

Figure 2: Presentation of Information with Individual Product Information

	Supplier Z Disclosure Label Applicable Period: January 20xx to December 20xx		
Electricity supplied has been sourced from the following fuels:	% of total		
	Your Electricity	Average for Supplier Z	Average for All Island Market (for comparison)
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 %
Total	100 %	100 %	100 %
Environmental Impact			
CO ₂ 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 www.SupplierZ.ie or call 00XXX X XXX XXXX		

Figure 3: Presentation of Information with Additional Fuel Sub-Categories²⁷

Supplier Z Disclosure Label		
Applicable Period: January 20xx to December 20xx		
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 %
• Wind	X%	X%
• Hydro	X%	X%
• Other	X%	X%
Peat	X %	X %
Oil	X %	X %
Other	X %	X %
Total	100 %	100 %
Environmental Impact		
CO ₂ 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 www.SupplierZ.ie or call 00XXX X XXX XXXX		

²⁷ 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.

Appendix B: Summary of Arrangements for Northern Ireland

Introduction

Below is a summary of the administration of renewable energy guarantees of origin (REGO²⁸) by Ofgem as it applies to Northern Irish generators and suppliers. Please refer to Ofgem's guidance document²⁹ for more information.

The key implication for Northern Irish suppliers is that they must ensure that they "retire" all REGOs they wish to claim for fuel-mix disclosure on the Ofgem register. They must retire them in advance of the deadline for submission to the Calculating body (as proposed by this paper). The Calculating Body will check the Register on the submission deadline to verify suppliers' submissions. Any REGOs not retired will not be included in the fuel-mix disclosure calculation. After they are cancelled the REGOs cannot be used or transferred.

Summary

Ofgem administer Northern Irish REGOs on the UR's behalf in the same manner as they administer REGOs originating from GB.

The Renewables and CHP Register (the Register) is the main tool used to administer the REGO scheme. It fulfils Ofgem's duty to establish, maintain and publish a Register in electronic form containing the information set out in Schedule 2 under Regulation 7(1)³⁰. It is an electronic, web-based system used for the accreditation of renewable generating stations, requesting and issuing REGOs, holding details of and recording the transfer, cancellation, retirement and use of REGOs. The Register is conclusive proof as to whether a REGO exists, who the registered holder is at a point in time and the registered particulars of the REGOs.

All parties, generating stations, electricity suppliers, agents and participants use the Register to receive, trade and use REGOs. To obtain access to the Renewables and CHP Register one must register for an account. Full information on how to use the Register is available on Ofgem's website www.ofgem.gov.uk in the 'Renewables and CHP Register User Guide'.

REGOs are requested through the Register. Only the operator of an accredited generating station can request REGOs for the renewable electricity they generate. The operator may appoint an agent to request REGOs on their behalf and for their benefit.

There is no deadline for requesting a REGO however all REGOs issued by Ofgem have a life of 16 months from the month of generation before they are cancelled. Therefore, a REGO must be issued before it is cancelled.

²⁸ The term REGO is used in this appendix for consistency with the Ofgem literature. A REGO (Renewable Energy Guarantee of Origin) is a guarantee of origin as defined by the Renewables Directive.

²⁹ Renewables and CHP User Guide, Ofgem

³⁰ The Electricity (Guarantees of Origin of Electricity Produced from Renewable Energy Sources) (Amendment) Regulations 2010

REGOs can be claimed for either a calendar month or annually (April-March) for generators <50kW. All claims for REGOs will be rounded up or down to the nearest whole MWh, with any exact half being rounded upwards. If less than half is generated for a period no REGO will be issued.

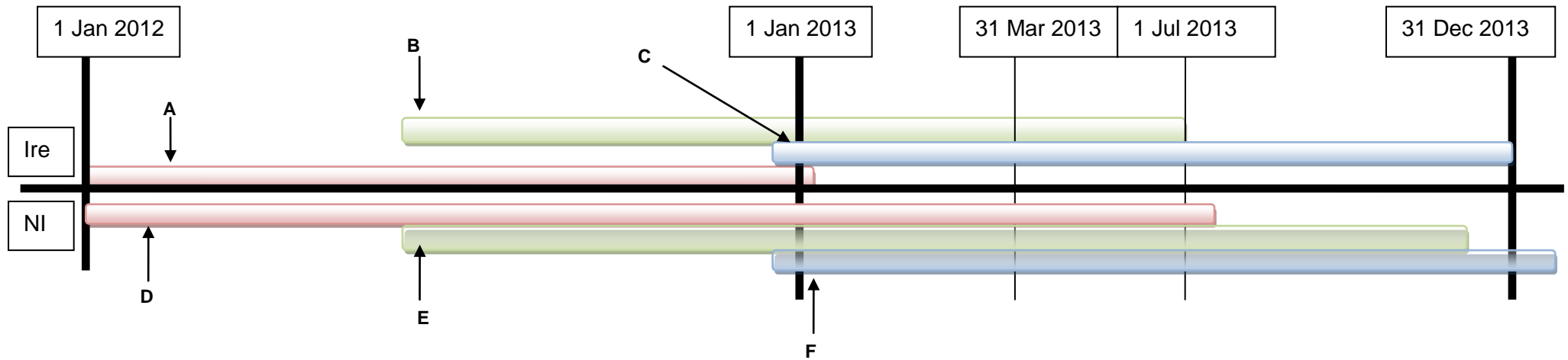
All REGOs are issued, held and transferred electronically within the Renewables and CHP Register. It records transfers of REGOs between registered holders and prospective registered holders. This helps maintain tractability of the REGOs and avoids double counting. Revoked, redeemed or retired REGOs cannot be transferred.

Regulation 6(6) of the 2010 NI Regulations introduced the provision to retire REGOs if Ofgem are requested to do so by the registered holder. This provision was introduced to allow Northern Ireland electricity suppliers to present REGOs for disclosure in the SEM. To ensure that retired REGOs are cancelled, Regulation 6(6) provides that 19 months after the month of generation these REGOs are *deemed cancelled*. Retired REGOs will not be cancelled on the Renewables and CHP Register (they will remain with a status of 'retired').

Once a REGO has been cancelled or deemed cancelled, or revoked, it will no longer qualify as proof that the electricity to which it relates was produced from renewable energy sources. It cannot be transferred or used.

Since a different disclosure period is used for disclosure in the SEM to that used in GB Ofgem are unable to 'redeem' REGOs on behalf of electricity suppliers as evidence to prove the supply of electricity to customers in NI. As such, all Northern Irish electricity suppliers must retire REGOs in respect of the Disclosure Period (i.e. the calendar year) themselves by the submission deadline proposed in this paper before they are cancelled. REGOs are retired using the 'retire REGOs' functionality in the suppliers' Renewables and CHP Register account. Ofgem will capture and report on all retired REGOs in a supplier's account at midday 1st July to present to the Single Electricity Market Operator (SEMO), who will verify these against submissions made to it.

Appendix C: Illustrative examples



Key Dates

1 January 2012: Start of SEM Disclosure Period

1 April 2012: Start of GB Disclosure Period

31 December 2012: End of SEM Disclosure Period

31 March 2013: SEM Disclosure submission deadline for 2012

15 May 2013: EU residual fuel mix figures available

June 2013: SEM disclosure figures published

1 July 2013: GB Disclosure deadline for FY2012/13

1 September 2013: Retired GOs issued by Ofgem for January 2012 are deemed cancelled

1 July 2014: Retired GOs issued by Ofgem for December 2012 are deemed cancelled

Example

The diagram above is a graphical illustration of the life cycle of six GOs. A, B and C are issued in Ireland (by SEMO) while D, E and F are issued in Northern Ireland (by Ofgem). The table below summarises the dates involved.

- A and D are issued for generation that took place on 1st January 2012.
- B and E are issued for generation that took place on 15th July 2012.
- C and F are issued for generation that took place on 31st December 2012

Each of the Irish GOs can be used in both the 2012 and 2013 Disclosure Periods, this is because each is active at some point in both Disclosure Periods. A, B and C are issued on 01/01/12, 15/07/12, and 31/12/12 respectively. Accordingly they expire 12 months from these dates. However in Ireland it is proposed that the GO may still be transferred and used until it is cancelled. Because A is active throughout 2012 and for January of 2013 this means that it can be submitted by a supplier in March 2013 in respect of its 2012 disclosure. Equally the supplier may decide not to use it for the 2012 disclosure period and instead wait until 2014 to submit it in respect of its 2013 disclosure (because it was active in January 2013). If the supplier does not submit it for its 2013 disclosure SEMO will use it for the Residual Mix and cancel it. B is issued for generation that took place on 15th July 2012 and will expire 31st July 2013 it is proposed that in Ireland the expiries of GOs be harmonised to the end of the month to increase standardisation and simplicity in the system. B is active in 2012 (from July onwards) and in 2013 (up until July), therefore B can be used by the supplier for 2012 or 2013 disclosure. If it is not submitted by 31st March 2014 it will be used by SEMO for the 2013 Residual Mix and cancelled. C is issued for generation that took place on 31st December 2012 and so C is active in 2012 and 2013, expiring 31st December 2013. Therefore it may be submitted for 2012 disclosure or for 2013 disclosure. As with A and B, if C is not submitted by 31st March 2014 it will be used for the 2013 Residual Mix.

NI GOs, have a different life span and may not be used once cancelled. However, the cancellation of a GO is tied to its expiry. Under the NI legislation, a GO will be cancelled 16 months after the month in which the production took place unless retired. If retired it will be deemed cancelled 19 months after the month in which the production took place. Once they are cancelled (or deemed cancelled) they cannot then be used or transferred. Operationally, all unretired NI GOs on the Ofgem register will be given the status of cancelled after 19 months and retired GOs will remain with the status of retired.

D is issued on 1st January 2012, it has a life of 16 months and so will expire 1st May 2013 unless it is retired in which case it will be deemed cancelled 19 months later on 1st July, 2013. Therefore the supplier must retire D and submit it to SEMO by the 31st March 2013 for it to be included in the 2012 Disclosure. If it is not included in the 2012 disclosure it cannot be included in the 2013 Disclosure as it cannot be used after 1st July,

2013. Once it is retired it cannot be transferred. E is issued for generation that took place on 15th July 2012 and accordingly will expire on 1st February 2014 (if retired) – Ofgem issues GOs in respect of the month in which the generation occurred and so all GOs expire on the 1st of the month 16 months from the month of generation. If it is retired before the 1st November, 2013 then it will be deemed cancelled on 1st February, 2014. For E to be included in the 2012 Disclosure it must be retired before 31st March 2013, if it is retired after the 31st March 2013 it will not be included in the 2013 Disclosure. E will not be able to be included in the 2014 Disclosure as it cannot be used after 1st February, 2014 (which is prior to the submission deadline of 31st March). As with D, the supplier must include E in its 2012 disclosure, if it does not E will expire and be cancelled in on 1st November 2013 and there will be no way for the supplier to use it for 2013 disclosure.

F is issued for generation that took place on 31st December 2012 and it will be deemed cancelled on 1st July, 2014. As F will not be cancelled until after the 31st March 2014 it may be included in the supplier's 2013 disclosure.

Table					
Jurisdiction	Generated	Issued	Expired (Ire)/Cancelled (NI)	Submission deadline	Disclosure Periods
Ireland	1 st January 2012	April 2012	31 st January 2013	31 st March 2013 or 31 st March 2014	2012 2013
Northern Ireland	1 st January 2012	February 2012	1 st May 2013 (if not retired) 1 st July 2013 (deemed cancelled)	31 st March 2013	2012
Ireland	15 th July 2012	October 2012	31 st July 2013	31 st March 2013 or 31 st March 2014	2012 2013
Northern Ireland	15 th July 2012	August 2012	1 st November 2013 (if not retired)	31 st March 2013	2012

			1 st February 2014 (deemed cancelled)		
Ireland	31 st December 2012	January 2013	31 st December 2013	31 st March 2013 or 31 st March 2014	2012 2013
Northern Ireland	31 st December 2012	January 2013	1 st April 2014 (if not retired) 1 st July 2014 (deemed cancelled)	31 st March 2013 or 31 st March 2014	2012 2013