



An Coimisiún  
um Rialáil Fóntais  
**Commission for  
Regulation of Utilities**

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# Remuneration of Renewables Self-consumers for exported electricity: Interim Clean Export Guarantee

## Decision Paper

Reference:

CRU/21131

Date Published:

01/12/2021

## CRU Mission Statement

The CRU's mission is to protect the public interest in Water, Energy and Energy Safety.

The CRU is guided by four strategic priorities that sit alongside the core activities we undertake to deliver on the public interest. These are:

- Deliver sustainable low-carbon solutions with well-regulated markets and networks
- Ensure compliance and accountability through best regulatory practice
- Develop effective communications to support customers and the regulatory process
- Foster and maintain a high-performance culture and organisation to achieve our vision

## Executive Summary

Electricity customers who install renewable generation on their own site or premises for the primary purpose of meeting some, or all, of their own electricity demand, may have surplus electricity which exceeds their demand and is exported to the electricity network from time to time.

Enabling legislation is being finalised which requires the CRU to put a regulatory framework in place to provide remuneration for such excess, exported electricity for eligible customers.

In advance of the enabling legislation being in force, the Department for Environment, Climate and Communications requested the CRU to provisionally develop a regulatory framework to ensure that these customers (referred to in the Directive and Irish legislation as “renewables self-consumers”) are paid for the surplus electricity which they export, at a rate for each unit exported (referred to as a Clean Export Guarantee or “CEG” tariff) which is reflective of the market value.

The arrangements for the implementation of the CEG must align with the National Smart Metering Programme. The first phase of upgrading electricity meters to smart meters under the programme concluded earlier in 2021. Phase 2 commenced in March 2021. The programme will culminate in the installation of over two million smart meters to Irish homes and businesses over the three phases, over a six-year period (2019 - 2025).

Many aspects of this interim solution, as set out in this decision paper, have been arrived at in the context of an overarching criterion that a straightforward, practical framework be put in place, such that it can be implemented quickly and easily, and that it does not detract from the design, development and implementation of a more advanced, enduring solution which will be fully integrated into the retail central market systems in Phase 3 of the National Smart Metering Programme (2023 – 2025).

The CRU published its consultation paper on the Interim Clean Export Guarantee on 1 October 2021. The CRU has taken into consideration the comments received to the consultation. This paper sets out the regulatory framework which is to apply to interim arrangements to put in place a Clean Export Guarantee for the period up to the commencement of a streamlined and integrated enduring solution which will align with the end of Phase 3 of the National Smart Metering Programme.

The CRU has decided to retain its consultation position for a competitive approach to the CEG tariff and to retain the floor price of zero Euro cents/kWh and - in line with the existing market arrangements - to allow dynamic and competitive pricing in the setting of the CEG export tariff by suppliers for microgeneration.

The CRU will carry out a review of the arrangements for the CEG after one year of operational data is available to the CRU for analysis.

The details of the framework and arrangements set out in this paper are contingent on the passing into law of the enabling legislation for the Clean Export Guarantee.

Remuneration on foot of this framework for the Interim Clean Export Guarantee shall begin on the date for commencement of remuneration, as stipulated in the legislation. What this means in practice is that eligible customers will begin to accrue a benefit for their exported electricity from the day the legislation comes into effect. However, development and testing of the systems necessary to allow customers' suppliers to transfer the benefit to the customer will not be completed for a number of months. The CRU expects that ESN will have the systems in place for suppliers to access the relevant export data for such customers at the end of Q2 2022, with suppliers providing a credit or payment to renewables self-consumers shortly thereafter.

**Note that considerations around the introduction of support schemes, including a premium tariff, are a matter for Government and are not addressed in this CRU decision.**

## **Public/ Customer Impact Statement**

Currently, the vast majority of electricity customers with microgeneration installed do not receive a payment for the excess electricity exported to the grid from their homes or premises.

The implementation of the measures set out in this decision paper will ensure that electricity customers who generate renewable electricity to meet their own demand but who are exporting some excess electricity on to the grid are receiving fair remuneration for their exported electricity.

These export payments will be of benefit to more than 20,000 existing electricity customers who have installed renewable generation and will provide remuneration at market value to consumers who install renewable generation into the future for their excess electricity.

These are interim arrangements which are being put in place by the CRU until the National Smart Metering Programme is fully rolled out in 2025. These interim arrangements will provide remuneration to final customers based primarily on the meter export readings provided by smart meters. A smart meter reading may not be available to some customers until the National Smart Metering Programme has been fully rolled out. For these customers, the remuneration will be based on an estimate (called a deemed quantity) of the electricity which they are deemed to export.

At the conclusion of the National Smart Meter Programme in 2025, the interim arrangements will be replaced by a streamlined, enduring solution for the remuneration of eligible electricity customers who have installed renewable generation. At that time, the remuneration will be based on the metered export data from smart meters and will be fully integrated with centralised retail and wholesale market systems.

This is a critical step in a transformation which will enable all electricity customers to become more active in energy consumption, storage and production.

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## Glossary of Terms and Abbreviations

| Abbreviation or Term | Definition or Meaning  |
|----------------------|--|
| <b>CEP</b>           | Clean Energy for all Europeans Package                       |
| <b>CEP</b>           | Clean Energy Premium   |
| <b>DECC</b>          | Department of the Environment, Climate and Communications    |
| <b>CEG</b>           | Clean Export Guarantee                                       |
| <b>CEGT</b>          | Clean Energy Guarantee Tariff                                |
| <b>ESBN</b>          | ESB Networks   |
| <b>IGG</b>           | Industry Governance Group                                    |
| <b>IRMMS</b>         | Interim Retail Market Microgeneration Solution               |
| <b>IRMMS WG</b>      | Interim Retail Market Microgeneration Solution Working Group |
| <b>MRSO</b>          | Meter Registration System Operator                           |
| <b>MSS</b>           | Microgeneration Support Scheme                               |
| <b>MRSO</b>          | Meter Registration System Operator                           |
| <b>NSMP</b>          | National Smart Metering Programme                            |
| <b>PV</b>            | Photovoltaic   |
| <b>REFIT</b>         | Renewable Energy Feed-in Tariff                              |
| <b>RED</b>           | Renewable Energy Directive                                   |
| <b>RESS</b>          | Renewable Energy Support Scheme                              |
| <b>SEMO</b>          | Single Electricity Market Operator                           |

# 1. Introduction

## 1.1 Background

The Clean Energy for all Europeans Package (the 'CEP') promotes consumer empowerment and participation in the energy sector. The package is made up of eight pieces of legislation that contain conditions and requirements to facilitate the implementation of more renewable generation and assist in the transition towards the use of more clean energy.

One of the Directives of the CEP currently being transposed into Irish law is the recast Directive on the promotion of the use of energy from renewable sources (EU) 2018/2001 (commonly referred to as 'REDII'). This Directive contains provisions which require Member States to put in place enabling regulatory frameworks to facilitate the participation of individual consumers in the energy market.

The Directive identifies these participating consumers as 'renewables self-consumers', as defined<sup>1</sup> in Box 1 below.

### BOX 1

REDII defines '**renewables self-consumer**' as:

...a final customer operating within its premises located within confined boundaries or, where permitted by a Member State, within other premises, who generates renewable electricity for its own consumption, and who may store or sell self-generated renewable electricity, provided that, for a non-household renewables self-consumer, those activities do not constitute its primary commercial or professional activity.

Under Article 21 paragraph (2)(d) of REDII, renewables self-consumers, individually or through aggregators, are entitled to:

*'receive remuneration, including, where applicable, through support schemes, for the self-generated renewable electricity they feed into the grid, which reflects the market value of that electricity and which may take into account its long-term value to the grid, the environment and society'.*

Under the 2021 Climate Action Plan, the Department of the Environment, Climate and Communications (DECC) has re-committed to deploying a Microgeneration Support scheme (MSS) which will deliver a range of measures to support microgeneration in Ireland out to 2030 to meet the requirements of the recast Renewable Energy Directive (REDII). The remuneration provided for by the CRU's framework for Interim Clean Export Guarantee is the first of these measures. It puts into place arrangements which will provide remuneration to renewables self-

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<sup>1</sup> The definition will also be transposed into Irish legislation.

consumers<sup>2</sup> for the electricity which they export to the network. This is an interim solution which will be replaced by a fully metered solution at the conclusion of the NSMP.

## **BOX 2**

### **Clean Export Guarantee**

The Clean Export Guarantee (CEG) is a mechanism which provides for the remuneration of renewables self-consumers for the surplus electricity which they export to the electricity network, at a rate for each unit exported (referred to as a CEG tariff) which is reflective of the market value.

In 2020, the CRU published an information paper<sup>3</sup> on microgeneration to inform its work on the topic in future. In that paper, the CRU identified three key principles: –

1. The CRU's approach is to facilitate customers that want to contribute to decarbonisation, enabling a reasonable, market-based price for exports, while avoiding unfair outcomes for customers that do not have the means or opportunity to invest in microgeneration themselves.
2. The CRU wants to support and encourage engaged customers to manage their own demand in an affordable and low-carbon way.
3. The CRU wants to ensure that the network, system operation and market costs associated with the provision of a reliable, safe and secure supply of electricity continue to be attributed in an equitable and transparent way between customers with and without microgeneration.

## **BOX 3**

### **"Microgeneration" terminology**

In the context of this Interim CEG decision, the term "microgeneration" is used for convenience to convey all of the ranges of generation capacity falling within the scope of "micro-, mini- and small-scale generation" (refer to Appendix A) and of any other range of generation which falls within the scope and meaning of "renewables self-consumer".

Likewise, references to "NC6" should be interpreted to mean the equivalent form or process which applies to the connection of mini- and small-scale generation to the distribution network.

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<sup>2</sup>The CEG applies to all renewables self-consumers. Note that existing definitions of microgeneration, particularly including DECC's and ESNB's, are within the scope of "renewables self-consumers", as is defined in RED II. The arrangements which will apply to renewable energy communities are separate to the arrangements in this decision.

<sup>3</sup> Refer to CRU paper "Microgeneration Information" [CRU20174](#)



The CRU's framework, which takes into account the above principles and Government policy, includes interim arrangements for the administration and implementation of the CEG outside of the Central Market Systems for electricity in order to enable renewables self-consumers to be paid for excess renewable electricity they export to the grid. The authority to design, establish and publish a framework to give effect to the entitlement of renewables self-consumers for this remuneration will be conferred upon the CRU through the transposition of Articles 21 and 22 of the Renewable Energy Directive (REDII) into Irish law.

As noted, the CRU considers that these arrangements for CEG must align with the phased delivery of the National Smart Metering Programme (NSMP) which will see the installation of over two million smart meters in three phases, over a six-year period (2019 - 2025). Smart services are also being introduced in a phased manner, with an enduring microgeneration solution<sup>4</sup> scheduled for delivery at the end of Phase 3 of the NSMP which will be fully integrated into the retail and wholesale Central Market Systems used by suppliers, ESN and SEMO. The CRU will consult on the policy for the enduring fully integrated microgeneration solution during 2022, with a target for delivering the enduring microgeneration policy by December 2022<sup>5</sup>.

In parallel with the continued roll out of smart meters, the CRU will continue its wider work on the implementation of the Clean Energy Package, in line with the timeline set out in the CRU's "Consultation on Energy Communities and Active Consumers" ([CRU21028](#)) and the subsequent Conclusions ([CRU21126](#)).

## 1.2 Scope of CEG and CRU's vires

This CRU decision paper, setting out the framework for the Interim CEG, is predicated on the entry into force of regulations<sup>6</sup> which have been submitted by the Department to the Office of the Parliamentary Counsel (OPC) in order to transpose articles 21 and 22 of REDII into Irish law at the earliest opportunity. The CRU has developed the framework for the Interim CEG on the basis of the latest version of the draft legislation provided to the CRU prior to the finalisation of this Decision. The CRU is satisfied that the legislation has been broadly settled and therefore is comfortable to proceed to make a decision on this basis. The legislation requires the CRU to put in place a framework to give effect to those requirements transposed from REDII which mandate that renewables self-consumers be remunerated for the surplus electricity which they export to the electricity network. Under the regulations, the CRU:

- shall put arrangements in place to effect the CEG remuneration based on fair and transparent processes;
- may set a minimum export tariff, if the CRU deems it necessary to do so;
- shall decide on eligibility criteria for the CEG remuneration; and
- may determine the method for calculating the deemed export quantity where the metered export quantity is not available to ESN.

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<sup>4</sup> Refer to CRU Information Note "Update on the Smart Meter Upgrade" ([CER17279](#))

<sup>5</sup> CRU Information Paper on Phase 2 Scope of the NSMP ([CRU21074](#))

<sup>6</sup> European Union (Renewable Energy) Regulations 2021

The scope of the framework for the Interim CEG is limited to an “interim solution” based on the sharing of export data to suppliers outside of the retail electricity market Central Market Systems. Due to the interim nature of this framework, the Electricity and Gas Suppliers’ Handbook has not been amended at this stage as this is a deliverable of the enduring solution for CEG. In the absence of specific amendments to the Suppliers’ Handbook to cater for the exporting of electricity by renewables self-consumers and other associated regulatory documents such as the Billing Code of Practice, the CRU expects that suppliers will be guided by the following overarching principles<sup>7</sup> outlined under Section A of the existing handbook:

### **Principles**

- **Fair, honest, transparent, reasonable, equitable and professional behaviour.** Suppliers, and their representatives make every effort to treat energy customers in a fair, honest, transparent appropriate, reasonable, equitable and professional manner.
- **Consistency of terminology.** Suppliers strive to ensure consistency, accuracy, clarity and transparency of information across all means of written and oral communications with customers. This includes but is not limited to definitions, terms, words used in bills, statements, terms and conditions of supply, schedule of tariffs and charges, marketing and advertising material.
- **Internal systems, processes and procedures conducive to compliance with legislative and regulatory requirements.** Suppliers’ internal systems (such as IT systems, accounting systems), policies (such as credit control, staff training), processes and procedures:
  - Enable compliance with legislative and regulatory requirements and market design rules
  - Facilitate and support the switching process
- **Supplier’s nominated representative.** When representing customers, energy suppliers and their representatives
  - Treat customers fairly, honestly and transparently
  - Act in the best interest of the customer
  - Do not exploit the customer’s vulnerability, confidence or inexperience

noting that:

*“The CRU regards the application of these principles as being appropriate where the obligations of the Suppliers’ Handbook are not sufficient to address a specific situation / aspect of the customer-supplier relationship.”*

*“These principles do not relate specifically to any Code of Practice but rather have a general application to all facets of the customer-supplier relationship.”*

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<sup>7</sup> Electricity and Gas Suppliers' Handbook, Version 3.1 – September 2021 ([CRU21111a](#))

## 1.3 Responses to the Consultation

The CRU published its consultation paper ([CRU21117](#)) on the Interim Clean Export Guarantee on 1 October 2021. The CRU received 21 responses to the consultation:

- Bord Gáis Energy
- Dinny Galvin - West Kerry Dairy Farmers
- Donal J. Kissane
- Electric Ireland
- Electricity Association of Ireland
- Energia
- ESB Networks
- Green Crowd Limited
- Iberdrola
- Irish Solar Energy Association
- John Swan
- Ken Healy
- Micro-Renewable Energy Federation
- Naturgy
- OakHall Consulting
- Panda Power
- Pinergy
- Shane Kenny
- Solarstream
- SSE Airtricity
- Walton Institute, Waterford Institute of Technology

The CRU plans to publish the responses a short time after this Decision is published.

## 1.4 Related Documents

- Climate Action Plan 2021: [LINK](#)
- CRU consultation: *Remuneration of Renewables Self-consumers' exported electricity: Interim Clean Export Guarantee* [CRU21117](#)
- CRU consultation: *Call for evidence on Energy Communities and Active Consumers* [CRU20099](#)
- CRU's Microgeneration Information Paper [CRU20174](#)
- ESNB's Microgeneration Framework Consultation, May 2020: [LINK](#)
- DECC Microgeneration Support Scheme (MSS) Consultation, January 2021: [LINK](#)

## 1.5 Structure of this paper

**Section 1** (this section) introduces the Clean Export Guarantee and clarifies the scope of this paper and the overarching context of the National Smart Metering Programme.

**Section 2** considers issues around the eligibility of customers for remuneration for their exported electricity.

**Section 3** provides information on the methodology for remuneration, including the approach which applies to the setting of suppliers' CEG tariffs and the methodology for the calculation of the export quantities in the absence of metered export data.

**Section 4** provides details surrounding proposed arrangements for the settlement of suppliers' financial positions, resulting from the CEG arrangements.

**Section 5** sets out the CRU's decision in areas relating to the practicalities of implementing the CEG policy and details of the CRU's intention to carry out a review of CEG after one year of operation.

**Appendix A** provides – for information only – some updates on connection policy as relates to micro- , mini- and small-scale generation.

**Appendix B** provides worked examples for the calculation of Deemed Export Quantity.

## 2. Eligibility for remuneration via CEG

Several criteria will be applied to determine whether a customer is eligible for remuneration and as whether the remuneration is to be based on metered export data or on the basis of a deemed export quantity.

In addition to the installation of microgeneration, a key criterion to determine is whether the customer is eligible to have a smart meter installed as part of the ESB Networks led deployment approach under the NSMP. For those renewables self-consumers who are eligible to have a smart meter installed as part of the ESB Networks led deployment approach, eligibility for remuneration will be on the basis of the metered quantity of electricity which is exported to the grid. For those customers who are eligible for a smart meter installation, they will only be compensated on the basis of metered export, and the CRU expects such meters to be installed within four months of a request. For those self-consumers who have microgeneration installed but are not yet eligible for installation of a smart meter as part of the ESB Networks led deployment approach under the NSMP, payments will be made on the basis of 'deemed' export quantities as a short-term interim measure, set out in Section 3.2.

In the remainder of this section, we set out the CRU's decision on the eligibility criteria applied to both sets of customers.

### 2.1. Summary of consultation position

The CRU proposed that a renewables self-consumer is eligible for remuneration for exported electricity if the following criteria are met:

- the renewables self-consumer must be exporting electricity to the network;
- the renewables-self consumer must have installed microgeneration and must have informed ESN of their intention to install microgeneration via a declaration using the NC6 form<sup>8</sup>;
- if the renewable self-consumer is eligible for a smart meter installation as part of the ESN led deployment approach under the NSMP, they must have a smart meter installed to meter their exported electricity; and
- if the renewables self-consumer is not eligible for a smart meter installation as part of the ESN led deployment approach under the NSMP, they will be eligible for remuneration based on a deemed export calculation.

The CRU set out its view that remunerated export quantities should ideally be metered. However, this requires a smart meter to have been installed. Given the timetable for the smart meter roll-out under the NSMP, some customers will not have the option of installing a smart meter for a period following introduction of the CEG. The deemed approach is an interim measure designed to ensure that all renewables self-consumers are remunerated for their exported excess electricity at the earliest possible opportunity. Once a customer's meter type is eligible for a smart meter installation

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<sup>8</sup> For the majority of customers this is an NC6 form, but for certain customers this may be an NC7 form, etc. Refer to Appendix A for details.

the ESB Networks led deployment approach, the customer will be contacted by ESNB to arrange the installation of their smart meter.

In the consultation, the CRU also set out the need to consider whether settlement on a deemed basis should continue where a customer delays or avoids installation of a smart meter under the NSMP.

## **2.2. Summary of stakeholder responses**

Stakeholders were generally supportive of the proposals, with no responses voicing significant opposition.

Stakeholders raised questions regarding how the NC6 form interacts with the eligibility and application process, whether a cap is applied for generation capacity of self-consumers, and how to deal with any reliability issues with data transfers from smart meters.

Some stakeholders suggested additional clarification of the criteria for eligibility for deemed export payments. Responses were supportive of allowing those who currently cannot have a smart meter to have deemed export payments; this includes those currently ineligible as part of the ESNB led deployment under the NSMP rollout and those unable to have a smart meter installed for reasons outside of their control. Several stakeholders expressed strong views that any customers who refuse, avoid, or unnecessarily delay smart meter installation should cease to be eligible for deemed export payments.

## **2.3. The CRU's decision**

The CRU has decided to substantially retain the proposed eligibility criteria as set out in our consultation paper but with refinements added.

Eligibility is focused primarily on the activities of the customer and not, for example, the capacity installed. The arrangements are designed to remunerate those self-consumers who do not carry out export as their main business. The CRU has determined that customers will only be eligible where they meet the definition (refer to Box 1 in Section 1.1) of renewables self-consumer as included in REDII.<sup>9</sup>

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<sup>9</sup> European Commission (2018), Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (recast). Paragraph 14. <https://eur-lex.europa.eu/eli/dir/2018/2001/2018-12-21>.

The CRU also confirms our decision in relation to eligibility for export metered and deemed quantity arrangements. Metered export arrangements will be used for those customers who have had a smart meter installed or are eligible to have a smart meter installed. Deemed export quantity arrangements will be used for customers who are not eligible for smart meter installation as part of the ESN led deployment approach under the NSMP or who are not able to have a smart meter installed for reasons outside of their control. ESN will be responsible for determining eligibility of different customer/meter types according to the NSMP.<sup>10</sup> Once a customer's meter type is eligible for a smart meter installation, the customer will be contacted by ESN to arrange the installation of their smart meter.

While the CRU continues to consider it inappropriate for deemed export quantities to be used for CEG payments on an enduring basis, it is appropriate as an interim measure to ensure self-consumers that are currently unable to install a smart meter to record export quantities are still able to receive remuneration. The NSMP sets out a plan to achieve the full roll-out of smart meters across all Irish homes and business and therefore remove the need for any deemed export arrangements in the foreseeable future.

In the following sections, the CRU provides further details regarding eligibility requirements for any renewables self-consumers wishing to take part in the CEG on a metered or deemed basis.

### **2.3.1 Eligibility criteria as applied to metered export arrangements**

To be eligible for remuneration based on metered export quantities, a renewables self-consumer must be eligible for a smart meter installation as part of the ESB Networks led deployment approach under the NSMP and they must meet the following criteria:

- the renewables self-consumer must meet the definition included in REDII<sup>11</sup>;
- the renewables self-consumer must be exporting electricity to the network based on data transmitted to ESN;
- the renewables-self consumer must have installed microgeneration and must have informed ESN of their intention to install microgeneration via a declaration using the NC6 or equivalent form<sup>12</sup>; and
- they must have a smart meter installed to meter their exported electricity.<sup>13</sup>

Under the export metered quantity arrangements, the exported quantity recorded and provisioned by ESN is the final determination of the quantity of export for which customers are to be paid by suppliers.

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<sup>10</sup> CRU (2021), Smart Meter Upgrade, Phase 2 Scope. [CRU/21/074](#). Timelines are given in Appendix 1.

<sup>11</sup> For ease of reference, the definition is included in Box 1 in Section 1 of this document.

<sup>12</sup> For the majority of customers this is an NC6 form, but for certain customers this may be an NC7 form, etc. Refer to Appendix A for details.

<sup>13</sup> For the avoidance of doubt, only export data submitted to ESN through installed smart meters under the NSMP will be considered to meet the eligibility criteria. No alternative export data will be permitted. The CRU identifies that this will minimize any risk of gaming based on the provision of non-verifiable export data.

### **2.3.2. Eligibility criteria as applied to deemed export arrangements**

To be eligible for remuneration based on deemed export quantities, a renewables self-consumer must meet the following criteria:

- the renewables self-consumer must meet the definition included in REDII<sup>14</sup>;
- the renewables-self consumer must have installed microgeneration and must have informed<sup>15</sup> ESNB of their intention to install microgeneration via a declaration using the NC6 or equivalent form<sup>16</sup>; and
- their meter type is not eligible for a smart meter installation as part of the ESNB led deployment approach under the NSMP at this time or they are eligible for a smart meter installation but unable to have a smart meter installed for other reasons outside of their control.

Under the deemed export quantity arrangements, the deemed quantity calculated and provisioned by ESNB is the final determination of the quantity of export for which customers are to be paid by suppliers.

#### Use of the NC6 form to register installation of microgeneration

The NC6 form (or equivalent such as NC7) – as part of ESNB’s connection arrangements – is used by end customers to submit and record details of the microgeneration to be installed at a customer’s premises. Some concerns have been raised that there may be some gaming risks by end customers associated with the NC6 declarations/applications process, such that an incorrect or non-representative MEC might be submitted by the customer and recorded by ESNB and which might not – in some circumstances – reflect the actual capacity of installed microgeneration equipment. In the case of eligibility for remuneration based on a Deemed Export Quantity, the incorrect or mis-stated MECs would lead to payments being made to a small number of customers over and above what they are entitled to.

The CRU has received assurance from ESNB that their existing measures associated with the connection arrangements and processes surrounding NC6 ensure that the likelihood and extent of fraudulent or manipulative activity is low, as:

- ESNB review the submitted NC6 forms to ensure all sections of the form are completed correctly: 1 in 10 forms received by ESNB are returned to the customer due to missing or incorrectly entered information;
- a Type Test Certificate<sup>17</sup> must accompany the submitted NC6 form;
- the forms must be signed-off by a Safe Electric technician; and

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<sup>14</sup> For ease of reference, the definition is included in Box 1 in Section 1 of this document.

<sup>15</sup> Renewables self-consumers who previously installed microgeneration but did not inform ESNB should do so in order to become eligible.

<sup>16</sup> For the majority of customers this is an NC6 form, but for certain customers this may be an NC7 form, etc. Refer to Appendix A for details.

<sup>17</sup> The Type Test Cert is the manufacturer’s validation that the technology to be installed has met test conditions and existing standards.



- the MEC is only entered on ESBN's SAP system and communicated to the registered supplier after the above requirements are met.

The gaming risk associated with larger installations other than NC6, such as for ESBN's trial NC7 process – as applies to mini-generation with capacity extending up to 50kW - is greater than for NC6 on account of the larger capacities involved and hence larger MECs.

However, the trial process for mini-generation – which will be piloted by ESBN in 2022 - will be subject to approval by the CRU and will be more detailed and rigorous than the NC6 process. For the mini-generation installations, the CRU will consider requiring that a site inspection be carried out within a CRU-specified period of time after installation. This would provide assurance that accurate recording of the MEC parameter by ESBN in order to represent what is installed and would mitigate risks associated with potential gaming for the larger installations.

To further mitigate such risks associated with NC6, the CRU requires that ESBN review their process after 12 months of operation of CEG and to take any further steps necessary. This may include an audit, including the post-installation inspection of a representative sample of new NC6 installations.

Any credit or remuneration for export paid out by the registered supplier will become null and void should any 'gaming' of the deemed export arrangements be found. In such circumstances the CRU will ensure the claw back of any over-payment will occur.

#### Customers that reject, avoid or delay installation of a smart meter

Customers that refuse - or previously refused - a smart meter installation as offered by ESBN under the NSMP will be ineligible for deemed export quantity arrangements.

The CRU will ensure that ESBN informs customers who refuse a smart meter installation that they will be ineligible for the calculation of deemed export quantities and hence ineligible for remuneration.

Should ESBN reasonably determine that a customer has rejected a smart meter, that customer will no longer be eligible for deemed export arrangements. If they wish to avail of the remuneration for their exported electricity, renewables self-consumers who were eligible for a smart meter installation, but previously refused a smart meter should contact their supplier or ESBN in order to request a smart meter and to understand what applies. ESBN will specify the steps a customer must take if it wishes to re-apply for a smart meter, as well as the arrangements that will apply in that situation. After installation of a smart meter, the customer will become eligible for export payments from the date at which the smart meter becomes active and returns metered export quantity readings to ESBN.

#### Customers with 24hr MCC01 meters

For clarity, customers with 24 hour tariffs (r MCC01) meters are currently eligible for a smart meter installation as part of the ESB Networks led deployment approach at the time of publication. Any MCC01 customers that have not yet had a smart meter installed, will not be eligible for remuneration on the basis of 'deemed' export quantities during the 4 month wait period for their smart meter installation. The CRU notes that the majority of MCC01 customers with renewable generation installed have a smart meter, and the number of eligible customers without a smart meter is falling steadily as the smart meter roll-out progresses. Customers with other meter types (e.g. customers with day/night MCC02 meters) will remain eligible for remuneration on the basis of 'deemed' export quantities during their 4 month wait period after which they become eligible for a smart meter installation as part of the ESB Networks led deployment approach.

#### Customers with day/night MCC02 meters (and meter types other than 24hr MCC01 meters)

Customers on Day/Night tariffs (i.e. those with MCC02 meters) will only remain eligible for deemed export quantity arrangements up until the point at which they become eligible for installation of a smart meter as part of the ESN led deployment approach under the NSMP. As with MCC02 customers, renewables self-consumers with all other meter types will only remain eligible for deemed export quantity arrangements up until the point at which they become eligible for installation of a smart meter as part of the ESN led deployment approach under the NSMP. For clarity, this smaller subset of customers will remain eligible for deemed during the four-month window while waiting for smart meter installation. However, they will no longer be eligible for calculation of deemed export quantities four months after they become eligible for a smart meter installation.

#### Intermittent export data

Some customers who have a smart meter installed may face issues with the availability of export data, for example as a result of poor data connectivity outside of the customer's reasonable control. Where, through no fault of the customer, gaps are present in the export data transferred to ESN from smart meters, the deemed export quantities will be applied by ESN to relevant periods.

#### Arrangements following meter type becoming eligible for replacement under NSMP

Where the meter type becomes eligible for replacement under the NSMP, the CRU expects that customers will remain on deemed for a maximum of four months. The CRU expects that ESN will install a meter at premises within the four month window and that customers whose meter type has become eligible for replacement under the NSMP will no longer be eligible for deemed settlement after this 4 month period. However, there may be extenuating circumstances that are outside of the control of the customer whereby ESN are unable to install a smart meter within this 4 month period, for reasons relating to issues on the site or issues relating to suppliers' systems. Such customers will be eligible for remuneration under the calculation of deemed export quantity arrangements until such a time that ESN are able to install a smart meter.

#### Arrangements following installation of a smart meter

Deemed payments are final:– there will be no retrospective adjustment of those payments which were based on deemed export quantities to reflect the metered data collected after a smart meter has been installed. This will help to minimise the potential for perverse incentives to manipulatively increase export capacity close to the date of meter installation, thereby benefitting from the additional export quantities on a retrospective basis.

The transition between deemed and metered arrangements will be determined by the point in time at which metered export data starts to be submitted to ESN. Payments under the deemed export quantity arrangements will be on a pro rata basis based on the ‘Provision Interval’ term within the deemed export quantity calculation.

## 3. Remuneration methodology

In this section we set out our decisions in relation to:

- the CEG export tariff to apply to metered and deemed export quantities; and
- deemed export quantity arrangements for relevant eligible customers.

### 3.1. Setting the CEG tariff

The decisions in this section cover the CEG export tariff to apply to metered and deemed export quantities.

#### 3.1.1. Summary of consultation position

The CRU proposed that a competitive approach would apply to the tariff for exported electricity as this would be consistent with the established principles of liberalisation and deregulation. Each supplier would be free to set its individual CEG export tariff, subject to exceeding a floor of zero Euro cents/kWh.

The CRU recognised that suppliers may wish to develop innovative and competitive offerings which reflect the market value in different ways (e.g., reduced import tariffs, credits for demand response) and that the tariffs which suppliers offer their customers depend on the pricing and hedging strategies of each individual supplier. The imposition of a floor tariff by the CRU would interfere with innovation in these competitive offerings and would be inconsistent with the principles of liberalisation and deregulation.

The CRU proposed to undertake a review of the Interim CEG after one year. This would include analysis of export tariffs to ensure that remuneration reflects market value, as required by REDII, and the Irish legislation which transposes RED II.

#### 3.1.2. Summary of stakeholder responses

Several stakeholders commented on the setting of the CEG tariff. Suppliers generally agreed with the CRU's proposal to set their own tariffs and with the proposal for the CRU to review tariffs after one year. One supplier questioned how the CRU would determine whether 'market value' had been delivered. Three other stakeholders considered that a floor price was needed, expressing a view that market competition would not be sufficient. Two of these respondents suggested that a floor price could be set dynamically with reference to the average wholesale day ahead electricity price.

#### 3.1.3. The CRU's decision

The CRU has decided to retain its consultation position for a competitive approach to the CEG tariff. These arrangements will provide suppliers with flexibility to provide dynamic pricing to incentivise efficient micro-generation and consumption decisions which consumers can benefit from (e.g., by exporting more energy during high demand periods when prices may be higher than average).

The CRU has decided to retain the floor price of zero Euro cents/kWh. However, depending on the tariffs set by suppliers in the first twelve months, the CRU may reconsider whether a floor is appropriate for arrangements going beyond this.

The CRU will consider an appropriate methodology for determining whether export tariffs are broadly consistent with a 'market value' ahead of the one-year review of arrangements. The CRU will draw on information which may include: the range of export tariffs available in the market; the day ahead wholesale market prices; the relationship between solar generation output and day ahead wholesale market prices, as well as wider market and environmental factors and meteorological conditions when carrying out this review.

## 3.2. Deemed Export Quantities

Where customers are eligible for remuneration under the deemed export arrangements, the methodology set out below will be used to determine the deemed export quantities for which these customers will receive payment.

### 3.2.1. Summary of consultation position

The central component of the deemed export arrangements is the formula for the deemed export quantity. The CRU considered that there is a lack of informative interval data to allow the development of a significant level of accuracy in relation to deemed export quantities. Furthermore, in the interests of avoiding complexity and facilitating a swift implementation for the Interim CEG, the CRU proposed a simple formula for estimating deemed quantities. This is set out in Box 3 below.

|   |
|---|
| <b>BOX 3</b>  |
| <b>Deemed Export Quantity = MEC x Capacity Factor x Export Factor x Provision Interval</b>  |
| Where:  |
| <ul style="list-style-type: none"><li>• <b>Deemed Export Quantity</b> is the quantity of electricity, in kWh, which is determined to be exported, as calculated using this formula.</li><li>• <b>MEC</b> is a capacity value in units of kW; it is representative of the generation capacity of the installed generation equipment, as declared via ESBN's NC6 form.</li><li>• <b>Capacity Factor</b> is the ratio of average electricity produced to the theoretical maximum possible if the installed capacity was generating at a maximum for a full year.</li><li>• <b>Export Factor</b> is the amount of electricity (expressed as a percentage of electricity produced) deemed to be exported, where the metered data is not available.</li><li>• <b>Provision Interval</b> is the number of hours in the period for which cumulative export quantities are to be calculated and to be made available to suppliers by ESBN.</li></ul> |
| <b>Worked examples are provided in Appendix B to this document.</b>   |

The CRU's proposed Export Factor was identified with reference to the export factor for the UK's solar feed-in tariff scheme<sup>18</sup>, which is set at 50% for 2021. The CRU's consultation view was that the Export Factor for Ireland should be *lower* than this figure for several reasons:

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<sup>18</sup> Determination by the UK's Secretary of State for Business, Energy & Industrial Strategy: [LINK](#)

- First, EU and Irish government policy relating to the facilitation of microgeneration is designed to promote and facilitate microgeneration at a customer's premises to a level which substantially meets the customer's own demand rather than incentivising the export of electricity onto the network.
- Second, a key driver of installations of PV in Ireland has been the building regulations, notably *Technical Guidance Document L - Conservation of Fuel and Energy – Dwellings*.<sup>19</sup> The capacities of PV in these schemes are typically less than 2kW: on average about 1.2kW, sized to comply with the building regulations. Empirical evidence shows that export factors are generally lower for smaller PV projects.
- Third, 90% of all microgeneration has been installed in Ireland during the 5-year period 2016-2020, with an average installed MEC during this period of 2.2 kW. Ricardo's advice to the Government<sup>20</sup> suggests that a 3kW system would deliver 70% self-consumption (and 30% export). Consequently, an average-sized system of 2.2kW, could be expected to export less than 30% of the electricity produced.

The CRU proposed an Export Factor of 35% to reflect the lower levels of installed capacity compared to NI and GB to-date.

The CRU's proposed Capacity Factor was 9.7% for all technology types. The CRU considered this to be the average capacity factor of photovoltaic panels as part of their work for the Department in the context of the Department's Microgeneration Support Scheme Consultation.

The CRU noted that ESBN's existing recording of microgeneration details via the NC6 form under its Install & Fit process does not record the technology type of the microgeneration equipment installed at each customer's site or the presence of energy storage. In the absence of data regarding the technology type, the CRU proposed that the same Capacity Factor and Export Factor would be applied for all technology types of micro and mini generation installation which are subject to these deeming arrangements. The CRU noted that more than 97% of installations in GB and NI are photovoltaic and expected the same to hold in Ireland.

The CRU also consulted on the need for a review of these input parameters as part of the one-year review of the CEG scheme, noting that this would allow for further data collation that could provide specific measurement of such factors in the particular context of Ireland.

### **3.2.2. Summary of stakeholder responses**

Most stakeholders commented on the proposed approach to the deemed export quantity. Seven supported the use of the formula or otherwise thought that it was acceptable for the interim solution. One thought that the CRU's proposal was excessively biased towards solar PV. Another commented that the fairest way to ensure that consumers are accurately rewarded would be to prioritise the installation of smart meters for consumers with solar PV.

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<sup>19</sup> On average, 40% of newly built houses in Ireland in 2019 have included PV installations and this is expected to rise to 50% for 2020.

<sup>20</sup> Source: Ricardo Economic and Policy Advice to DECC, 12 October 2020.

Nine stakeholders commented on the Export Factor. Four suppliers thought that 35% was too high and that a factor of 25% or 30% would be more appropriate. They questioned why the CRU had chosen 35% when a 30% export assumption had been used in Ricardo's advice to Government. Some were concerned that an overly generous Export Factor could lead to consumers resisting the installation of a smart meter.

In contrast, two other stakeholders thought that the CRU's proposal was unrealistic and conservative. They noted that a 45% Export Factor applies in NI and thought that the same assumption should apply for the interim solution.

Five stakeholders commented on the Capacity Factor assumption. One supplier thought that 9.7% was reasonable. Three other stakeholders thought that 9.7% was too low and would underestimate actual production. One said that most 'behind the meter' systems have capacity factors in the range of 11-14%.

Two suppliers expressed caution around the use of MEC, noting that an MEC may not correspond with actual installed capacity, nor guarantee that energy is actually exported. This issue was also raised in the IRMMS WG where members identified a 'gaming' risk if customers were to acquire an MEC by submitting an NC6 form without intending to install microgeneration capacity.

Two stakeholders questioned whether deemed energy quantities would be profiled.

ESBN questioned what power factor assumption would be applied to convert MEC from reactive power (kVA) to active power (kW). ESBN suggested that a unity power factor (i.e., an assumption of a one-to-one relationship between reactive and active power) be used for simplicity<sup>21</sup>.

### **3.2.3. The CRU's decision**

The CRU has decided to retain the formula in our consultation position (refer to Box 3) to calculate the deemed export quantity. Notably:

$$\text{Deemed Export Quantity} = \text{MEC} \times \text{Capacity Factor} \times \text{Export Factor} \times \text{Provision Interval}$$

While the formula is simple and will not reflect the specific characteristics of individual technologies, the CRU considers the approach to be proportionate and practicable in the context of this interim CEG arrangement.

To the extent that there are residual imperfections in the calculation and application of the deemed export arrangements, the CRU notes that these issues will become less material over time as increasing numbers of consumers become eligible for a smart meter and are moved off the deemed export arrangements.

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<sup>21</sup> The power factor is a measure of efficiency which describes the relationship between active power (in kW) and reactive power (in kVA). A unity power factor will be used.

### **3.2.4. MEC & other parameters in the calculation of deemed**

The CRU's decisions on each component of the formula are set out below.

#### MEC

The CRU acknowledges that MEC is an imperfect metric but consider that it is the best available metric in the short term and is therefore appropriate for the Interim CEG. For simplicity, MEC with a unity power factor assumption shall be used in the Deemed Export Quantity formula, consistent with ESNB's suggestion.

We note that the use of the NC6 form to collect this information is an extension of the form's original purpose. As noted in the subsection entitled "*Use of the NC6 form to register installation of microgeneration*", the CRU will work with ESNB and other stakeholders to implement any refinements that may be necessary to ensure that there are adequate checks and balances to protect against fraudulent submissions.

#### Capacity Factor

We retain our consultation position of 9.7%. This capacity factor was established by Ricardo in their work for DECC and we have not received any further stakeholder evidence to support an alternative figure. In response to stakeholder claims that 9.7% was too low we sought to develop a 'cross check' for this figure. We observed data for a sample of over 2,700 PV systems in the UK, identifying a capacity factor of 9.43%.<sup>22</sup> On this basis we consider that a 9.7% Capacity Factor is broadly consistent with empirical evidence from a comparable jurisdiction and therefore more appropriate than a higher assumption.

#### Export Factor

Stakeholders expressed diverging opinions on the Export Factor assumption but provide limited additional evidence to support an alternative figure. In a reflection of this, the CRU notes that the available evidence and precedent suggests a spectrum of plausible options. For example, the 45% assumption in NI and empirical evidence from the UK may be argued to support a higher export factor<sup>23</sup>. However, Ricardo's modelling indicates that export could be less than 30% of the electricity produced. Also, the empirical evidence from the UK supporting 45% export reflects a 2.9kW average system size; such that an appropriate assumption for Ireland would be lower.

Considering this combination of evidence, the CRU considers that a 35% Export Factor strikes an appropriate balance for the interim solution. In response to concerns raised about the potential for perverse incentives for consumers to remain on the deemed export rate rather than installing a smart meter, we consider the eligibility criteria to provide additional protection against this given that consumers would no longer be eligible once they are able to have a smart meter installed.

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<sup>22</sup> Country Statistics, PVOutput.org: [LINK](#). Accessed on 22 November 2021.  $2.263/24=0.0943$  (n= 2,759)

<sup>23</sup> McKenna, E. et al., (2018) Solar photovoltaic self-consumption in the UK residential sector: new estimates from a smart grid demonstration project. Energy Policy, Volume 124, January 2019, Pages 421.



### Provision Interval and Profiling

In theory, it would be preferable to allocate deemed energy quantities using half-hourly profiles to account for diurnal and seasonal patterns in microgeneration output. However, the CRU considers that the administrative complexity of such an arrangement would not be warranted for the interim solution, especially when it is not possible to differentiate between existing microgeneration technologies. As such, the CRU's decision is for the Interim CEG to include flat profiling of deemed energy quantities (i.e., an annual assumption for the deemed energy which is evenly divided across all settlement intervals).

The CRU's decision is to apply the same formula and component values based on solar PV to all technology types on the basis that this approach:

- is relatively easy to implement and administer in the absence of existing data on generator technology types in Ireland, whereas a manual process - such as site visits to collect this information - would be resource intensive, while allowing self-consumers to notify ESNB of their technology type, could lead to the provision of misinformation;
- is the fairest approach for the largest number of customers; and
- retains appropriate incentives for self-consumption for all technologies.

The CRU will carry out a review of the formula for the calculation of deemed export quantity as part of its review, as set out in Section 5.5.

## 4. Settlement Solution

In this section we set out our decisions on the settlement solution for the Interim CEG. These arrangements will facilitate the gathering and sharing of metered export quantities and deemed energy quantities by ESBN with suppliers and with the wholesale electricity market. This will enable the settlement of suppliers' financial positions, incorporating the interim solution.

### 4.1. Provision of metered export data and deemed export quantities by ESBN

#### 4.1.1. Summary of consultation position

The CRU proposed a default arrangement where if smart meter export data is transmitted to ESBN, the data will be made available to the customer's registered supplier by ESBN.

In the absence of a smart metered export quantity for exported electricity, the CRU proposed that a Deemed Export Quantity will be calculated by ESBN based on a formula, as proposed in Section 3.1 above, and made available to the customer's registered supplier by ESBN, at a frequency and granularity to be determined by the Interim Retail Market Microgeneration Settlement Working Group. Any adjustment or reconciliation of the Deemed Export Quantity would originate from ESBN and such quantities may not be adjusted or amended by suppliers.

For the interim CEG solution, deemed export quantities would be provided by ESBN solely to the registered supplier of the renewables self-consumer.

The CRU's initial view on data granularity was that data provision on a settlement period (30 minute) basis is needed to ensure customers' rights to an export payment can be properly given effect to, as is required by Directive 944/2019, REDII and Irish law. Granular export data would also allow suppliers to undertake forecasting to manage their exposure to system imbalances.

The CRU considered that export data presents a lower overall risk compared with import data as regards revealing personal information about a consumer. Also, there appears to be clear policy requirements for this information to be made available. On the basis of data being processed by ESBN and by suppliers in full compliance with the applicable data protection regulations, there appears to be little risk to citizens resulting from their export data being made available to their registered supplier.

#### 4.1.2. Summary of stakeholder responses

Most stakeholders expressed a view on the interim settlement solution, with general agreement around ESBN's role and the granularity of the data (i.e., 30 minutes). ESBN indicated that providing deemed energy quantities to suppliers would result in complexity and that it would prefer suppliers to undertake the calculation themselves.

One supplier questioned whether the provision of export data by ESBN would be scheduled. Another suggested that it should be provided at D+1. A third thought that suppliers should be able to request export data and for it to be provided to them automatically.

There were a range of views expressed on the matter of personal data and data privacy. Several stakeholders agreed with the CRU that export data posed a lower data privacy risk compared to import data. ESBN requested that the CRU confirm the legal basis for it to provide data to suppliers. One supplier noted that without a legal basis suppliers would have to seek consent from customers. Another thought that it would be able to process data on the basis of 'performance of a contract', but that the new enabling legislation for the CEG may provide a 'legal obligation' basis.

One supplier thought that the arrangements should allow customers to request their data from ESBN or give permission for it to be shared with third parties.

#### **4.1.3. The CRU's decision**

The CRU has determined that ESBN will provide half-hourly export energy data to suppliers for all microgeneration self-consumers. This arrangement is more conducive to authorised third parties accessing the data under the enduring solution (i.e., if suppliers and authorised third parties were to perform their own calculations, there would be duplication and the potential for unhelpful discrepancies).

The CRU has also determined that ESBN will calculate deemed export quantities. The CRU acknowledges that there will be an incremental effort for ESBN in performing the calculations for the deemed export arrangements but considers that this is the most efficient solution considering ESBN's existing functions in handling metering data.

The frequency of export data provision will be determined by the IRMMS WG and data transfer will take place in parallel to the existing central market systems. The CRU notes that there is broad stakeholder support for half-hourly granularity, which would be consistent with smart metered import data and the operation of the wholesale market. Furthermore, it is logical to align half-hourly export data provision with the arrangements for half-hourly import data provision in so far as is possible, so that export data is provided to suppliers on a D+1 basis.

The CRU notes the references to data privacy in relation to export data. The CRU remains of the view that questions of personal data are not relevant to export data collected for the purposes of remuneration renewable self-consumers. This is on the basis that the information collected will be a function of a great many factors such as the prevailing weather, the scale and size of the technology installed on site, or the presence of other technologies on the premises such as a battery or hot-water diverter. On this basis - and following engagement with the Office of the Data Protection Commissioner - the CRU is strongly of the view that no further measures are required relating to the provision of export data by ESBN to suppliers.

## **4.2. Wholesale market settlement process**

The wholesale market settlement process is the mechanism for each supply company to recoup – at market rates – the monies, in aggregate, paid out by the supplier to remunerate its customers (i.e., renewables self-consumers) for the electricity which they export to the grid. This mechanism is part of the centralised wholesale market systems and is of concern for suppliers rather than for renewables self-consumers.

To facilitate the wholesale settlement process, ESBN will make available information on the quantity of export (both metered and deemed) purchased over a certain designated period for each Supplier Unit, on a periodic basis. ESBN will collate data on export quantities of microgenerators from Day 1 of the Interim CEG arrangements. The settlement positions of suppliers will therefore reflect the export quantities as applied from Day 1.

The decision in this section relates to the timing of when this data should be made available and included in settlement.

#### **4.2.1. Summary of consultation position**

The CRU proposed that the arrangements for wholesale market settlement would occur at M+13 (i.e., as part of the settlement rerun which occurs 13 months after the initial settlement run), as opposed to the initial settlement run or 'M+4' run. This would be in line with practice in NI and would be conducive to appropriate credit being applied to suppliers for both metered and deemed quantities of export from their registered renewable self-consumers from Day 1.

#### **4.2.2. Summary of stakeholder responses**

Stakeholders generally accepted the use of the M+13 settlement rerun for the interim solution. One supplier thought that M+4 should be used instead, expressing a view that the process would be more straightforward than in NI where export metering is not a function of Northern Ireland Electricity Networks, in contrast to ESBN's role in the interim solution. One respondent thought that 13 months was too long for consumers to wait to receive a payment.

Despite supporting M+13, suppliers also identified several risks associated with this option. These included risks to cash flow and balancing market risks. One supplier explained that it will need to estimate the amount by which they expect to be short in prior settlement runs. Several suppliers noted that as M+13 is the last settlement run it is unclear how errors could be corrected. One supplier thought that suppliers should be compensated for these risks.

#### **4.2.3. The CRU's Decision**

The CRU's decision is to retain the M+13 settlement rerun for the interim solution, particularly given the flexibility that it provides around implementation of the CEG arrangements. We acknowledge the additional risks identified by suppliers but consider these to be relatively small and manageable in the context of wholesale settlement. For example, liabilities for suppliers should be predictable once the interim solution commences and suppliers have access to export data for their customers. The deemed energy quantities will be known from the methodology for the deemed export arrangements, while metered quantities can be forecast using modelling and statistical techniques.

The case for moving to an earlier settlement run will be considered in the design of the enduring solution.

This decision does not impact on the timing of payments to renewables self-consumers, which are discussed in the following section.

## 5. Implementation

### 5.1. Introduction

This section sets out the CRU's decision in areas relating to the practicalities of implementing the CEG policy. ESBN and suppliers will have a certain level of flexibility in some areas of implementation given the need to develop robust systems and practicalities with implementing the new interim arrangements. We set out in the following sections where the parties will have flexibility. The CRU will separately issue guidance to suppliers to allow them to understand what we expect of them – and, in turn, what customers can expect of their suppliers.

### 5.2. Export quantity back-payment

#### 5.2.1. Summary of consultation position

Eligibility for CEG remuneration will commence from the date of enactment of the legislation (“Day 1”) for all eligible customers with renewable technology installed and declared (i.e., NC6 form completed and submitted to ESBN, as applicable). In the consultation, the CRU set out its understanding that ESBN will be capable of making the granular interval export data<sup>24</sup> and 24hr cumulative export data available to suppliers from Day 1. However, we also understood that the systems and processes for transferring data to suppliers may not be in place to facilitate payments to customers from this date.

The CRU's proposed approach was for suppliers to be able to access export data extending back to Day 1 stored on ESBN's systems. The CRU set out our expectation that the first customer statement of export remuneration provided by each supplier would include a back-payment for electricity exported by the customer between Day 1 and the point at which payments from the supplier commence. This would be provided together with the current absolute meter reading for export corresponding to Day 1, or a later date within four months of Day 1 when the smart meter is first installed.

#### 5.2.2. Summary of stakeholder responses

Stakeholders gave varying views as to whether export payments can begin before the customer has an explicit contract with the supplier for this purpose. This was in the context of payments flowing automatically to the suppliers once ESBN has the relevant data available and noting that suppliers will be settled based on export quantities from Day 1.

Some respondents requested lead time between the enacting of the legislation and the requirement to begin export payments.

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<sup>24</sup> Export Data here is nominally metered data but is the calculated Deemed Export Quantity where metered data is not available.

Two suppliers supported back-payments payments. All agreed that they would like flexibility regarding how to manage the transition, supported by guidance provided by the CRU. Most other groups of stakeholders were generally supportive of the proposals for back-payments or did not comment, although the CRU noted some concerns regarding requirements for an explicit contract.

### **5.2.3. The CRU's decision**

The CRU maintains its proposed position of ensuring export data is made available to all suppliers from the day of entry into force of the legislation for any customers that are eligible. Suppliers will therefore have any export quantities from their customers (whether metered or deemed) credited in their settlement positions based on this date.

Given that suppliers will be settled based on exported electricity quantities from Day 1, the CRU fully expects suppliers to put the provisions in place to ensure that back-payments can be paid to all eligible customers for electricity exported from Day 1, or the point at which they have microgeneration installed. This back-payment should be processed as soon as possible from the date at which the supplier has put in place the systems required to process payments for export quantities. However, suppliers will have the flexibility to determine the most appropriate process for processing back-payments to ensure that the approach taken is practicable within their systems. The supplier may offer back-payments in the form of a credit to the customer's account if this approach is considered to be the most appropriate. The CRU expects all back-payments to be based on metered export quantities wherever available. The CRU also expects back-payments to be communicated clearly to customers of each supplier.

Similarly, the CRU is not setting a date or deadline for the timing of the first payment, Suppliers will be able to access the export data (both metered and deemed) - as shared by ESNB - of their registered customers by the end of June 2022. Customers can expect an initial payment or credit from their suppliers within a reasonable time thereafter. Suppliers will have the flexibility to determine what is practicable within their systems, and we ask them to communicate their decision on when initial CEG payments will be made to customers at the earliest opportunity.

## **5.3. Suppliers' statement of remuneration**

### **5.3.1. Summary of consultation position**

The CRU proposed that suppliers must provide a record to their customers of the quantity of exported electricity which they are being remunerated for, the start and end dates to which the meter reading or deemed quantity of exported electricity applies, and the export-tariff rate which the supplier has offered and contracted with its customer.

For the interim solution, the CRU has focussed on developing interim arrangements which can be implemented quickly, Therefore, the CRU proposes that these export details may be incorporated into existing customer bills if this is considered to be the most practicable solution. Alternatively, these details may be in the form of a separate export remuneration statement from the supplier.

### **5.3.2. Summary of stakeholder responses**

Suppliers expressed a need for flexibility given the tight timelines within which they will need to prepare the first statements. Several suppliers also requested that the CRU provide some guidelines or minimum requirements to assist the suppliers in developing their statement format.

### **5.3.3. The CRU's decision**

To support ease of implementation, the CRU will not mandate a specific format for the statements of remuneration, nor for how frequently these statements should be issued. Nonetheless, it is important that there is a basic level of information and some consistency. For this reason, the CRU will publish in its guidance to suppliers some expectations regarding what suppliers could include in their customer statements.

The CRU has decided not to set a mandatory frequency for ongoing payments. Suppliers will have the flexibility to determine what is practicable within their systems, and we ask them to communicate their decision to customers at the earliest opportunity.

## **5.4. Switching to a new supplier**

### **5.4.1. Summary of consultation position**

A connection for a renewables self-consumer has a single MPRN associated with a single smart meter which records both import and export separately. Therefore, the import is currently tied with the export. Consequently, at least under the interim solution, the customer can only switch import and export together and must have the same supplier for import and export.

The CRU will consider the potential for a more flexible switching arrangement for the enduring CEG Solution as part of the enduring microgeneration policy.

### **5.4.2. Summary of stakeholder responses**

There were a few comments on the practicalities of switching, including one comment that there needs to be an agreed “switch time” across all suppliers for consistency. Stakeholders were overall more concerned around whether import should be “tied to” export (i.e., required to be with the same supplier). Those who responded mostly agreed that it is appropriate to have a single supplier for both. One highlighted that having separate suppliers for import and export would introduce unnecessary complexity into the supplier switching process and would also be against the principle of self-consumption in which consumers are assumed to prioritise their own consumption and only export any imbalance.

One response argued that tying export to import for the interim measure is anti-competitive as, they consider this prevents suppliers from competing with each other as effectively as possible. Another argued that customers should not be tied to accepting an export agreement from a supplier and that they should be allowed to instead sell their ‘exports’ to a third party to allow a more competitive market.

### **5.4.3 The CRU's Decision**

The CRU has determined that, at least for the interim arrangements, import and export will be provided by a single supplier. While we recognise concerns regarding the inability of customers to choose a separate import and export supplier, this represents the most practicable solution for the interim arrangements ahead of which it is not possible to develop a solution that allows for separate suppliers to provide import and export. Within the interim arrangements, customers will not be able to sell their exported electricity to a third party.

As a general principle the CRU recognises the merits of competition and the potential for unbundled import and export provision to facilitate new products and enhanced competition for each type of offer. The CRU will seek to identify solutions which can allow for separate provision of import and export as part of the enduring solution.

Switches will take place at midnight, given the use of this time for other related purposes across the industry. The CRU's guidance to suppliers will also set out what can be expected in switches, including the length of time before receiving a final export statement from the old supplier, and time before receiving the first statement from the new supplier.

## **5.5. Review of arrangements for CEG**

### **5.5.1. Summary of consultation position**

The CRU set its intention to carry out a review of the arrangements for the implementation of the CEG remuneration after one year of operational data becomes available. As part of this review, the CRU consulted on monitoring the export tariffs offered by suppliers and assessing whether there are sufficient grounds for improving the accuracy of the formula for deriving the Deemed Export Quantity or adjusting the input parameters. The CRU also intended to consider whether measures need to be put in place to ensure that remuneration reflects the market value, as is required by REDII. For example, this may include obliging suppliers to offer a tariff which must exceed a floor price, as may be determined by the CRU, if warranted.

### **5.5.2. Summary of stakeholder responses**

Around half of stakeholder responses stated that they agreed with the CRU's proposals to review the arrangements after 12 months. Multiple responses requested to be kept up to date on the scheme in this first year – e.g., quarterly statements of total exports on a network level – to allow them to be in a more informed position in time for the review. There was one request for engagement with suppliers on an ongoing basis to allow regular review and potential updates before 12 months if appropriate. The only response to directly disagree with the proposal expressed concern that this review would take attention and time away from the development of the enduring solution, thus delaying that solution.

A small number of responses were concerned about how the CRU will ensure that market value is obtained under the CEG tariff, while suppliers emphasised their need for discretion in pricing their own tariffs.



### **5.5.3 The CRU's Decision**

The CRU will carry out a review after twelve months of operation of the CEG<sup>25</sup> and may do so from time-to-time thereafter, as deemed necessary by the CRU. The CRU will work with ESNB to share some high-level information on the progress of the scheme throughout the first year through its website. The CRU intends for the content of the review to be similar to that set out in its consultation: the CRU expects to include consideration of the level of export tariffs available in the market, the input parameters for the calculation of the deemed export quantity, and the practicality of settlement at M+13.

This review will include consideration of an appropriate methodology for determining whether export tariffs are broadly consistent with a 'market value' drawing on a range of information, including the range of export tariffs available in the market, day ahead wholesale market prices, the relationship between solar generation output and day ahead wholesale market prices, as well as wider market and meteorological conditions when carrying out this review.

The CRU will report on the tariffs offered by suppliers to assess whether market value is obtained by customers under the CEG tariffs but mindful of suppliers' need to have latitude in pricing their own tariffs. This analysis may consider the relationship between solar generation output and day ahead wholesale market prices, as well as wider market and environmental factors.

The CRU is not implementing a floor price from the outset of the CEG implementation but, depending on the behaviour of suppliers and customers in the first twelve months, the CRU may reconsider whether a floor is appropriate and whether for the remainder of the interim CEG or for the enduring arrangements.

The need for the calculation of deemed quantities approach will cease on completion of Phase 3 of the National Smart Meter Programme, when all customers will have received a smart meter, which will record their export and import, and therefore there will be no customers for whom metered export quantities would not be readily available.

## **5.6. Phase out of existing remuneration schemes**

A number of suppliers have pre-existing non-regulated arrangements, including pilot schemes, to provide some of their exporting customers with remuneration for exported electricity.

These arrangements may be inconsistent with the Interim CEG arrangements and may rely on metering which is not consistent with the National Smart Metering Programme.

The CRU's expects that suppliers with customers on these schemes should satisfy themselves that these schemes are compliant with the legislation.

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<sup>25</sup> The CRU expects the legislation to contain provisions for a review of the scheme to be held before this date if considered necessary.

## **5.7. Guidance to suppliers on implementation aspects**

On account of the absence of specific provisions in the Suppliers' Handbook for the duration of the Interim CEG, a number of suppliers who responded to the consultation and through bi-lateral engagements with the CRU requested that some guidance be provided to them to establish a relatively consistent understanding of what customers can expect as regards aspects of the implementation of the Interim CEG.

The Guidance will, amongst other things, seek to apply the principles - which are relevant to all customers - in the existing Suppliers' Handbook.

The CRU will publish the Guidance ("*Guidance to suppliers on implementation aspects of Interim CEG*") in the coming weeks, following the publication of this decision.

## 6. Next Steps

The details of the settlement solution for the interim CEG will be finalised via the change process of the IGG.

A customer's eligibility for remuneration for exported electricity commences from the date of entry into force of the legislation which gives effect to the CEG framework, or as may be stipulated in the legislation.

Suppliers will be able to access the export data – as shared by ESNB - of their registered customers by the end of Q2 2022. Customers can expect an initial payment from their suppliers within a reasonable time thereafter.

The Guidance (*Guidance to suppliers on implementation aspects of Interim CEG*), together with the responses received by the CRU to the consultation, will be published separately, a short time after this Decision is published.

The CRU will review the arrangements for CEG after one year of operation.

An enduring policy for microgeneration will be delivered by December 2022.

The CRU expects that the need for the deemed approach will cease on completion of Phase 3 of the National Smart Meter Programme and that remuneration on the basis of the calculation of deemed quantities of exported electricity will cease at that time.

# Appendix A: Grid Connection

## A.1 Introduction

Information on grid connection is provided here for context and to inform stakeholders.

In the context of grid connection, “microgeneration” has historically related to capacities in the range 0 – 6 kW for single phase electrical connections and in the range 0 – 11 kW for three phase connections. The capacity range for mini-generation and small-scale generation are shown in the table below.

| ESBN’s Form or Process         | Capacity Range   | Terminology (see footnotes) |
|--------------------------------|--|-----------------------------|
| <b>NC6</b>                     | 0 to 6kW (single phase)<br>0 to 11kW (three phase)           | “microgeneration”           |
| <b>NC7<sup>26</sup></b>        | > 6kW to 17kW (single phase)<br>> 11kW to 50kW (three phase) | “mini-generation”           |
| <b>ECP-2 Non-batch process</b> | 50kW <sup>27</sup> <MEC<br>≤500kW                            | “small-scale” generation    |

The above categories of generation fall within the scope of “renewables self-consumers”.

## A.2 Microgeneration “Inform and Fit” (0 - 6/11kW)

Customers are required to connect microgeneration installations in accordance with ESBN’s “*Inform and fit*” principle, whereby the customer informs ESBN of the intention to connect a microgenerator using a dedicated NC6 form found on ESBN’s website. If ESBN decide that a technical study is necessary, ESBN has 20 working days to notify the customer. If the customer

<sup>26</sup> A process is being developed by ESBN which is expected to be rolled out early in 2022. More information on the associated trial process is contained in Section A.3 below entitled “*Mini-Generation Grid Connection (>6/11kW – 50kW)*”.

<sup>27</sup> The range 50kW <MEC ≤500 kW for small-scale is subject to change and is conditional on the outcome of the mini-generation trial process.

does not receive any communication from ESNB within the 20 days, then the customer may proceed with the installation of the microgenerator.

### **A.3 Mini-Generation Grid Connection (>6/11kW - 50kW)**

ESNB have recently developed a pilot grid connection process for installations with an installed capacity rating greater than 6 kW up to 50 kW single phase and an installed capacity rating greater than 11 kW up to 50 kW three phase (collectively termed “Mini-Generation”). The CRU expects the submission by ESNB of the pilot process shortly. Subject to approval, the CRU expects the new application route to be in place early in 2022. Further details will be published on ESNB’s website in due course.

## Appendix B: Sample calculation of Deemed Export Quantity

**Example 1: where the "Provision Interval" is 12 months (= 8760 hours)**

| Input parameter to formula | Entry for Customer X | Comment  |
|----------------------------|----------------------|--|
| MEC (kW)                   | 1.8                  | As notified to ESBN using the NC6 form, assuming unity power factor. |
| Capacity Factor            | 0.097                | i.e., 9.7%, as decided by the CRU.                                   |
| Export Factor              | 0.35                 | i.e., 35%, as decided by the CRU.                                    |
| Provision Interval (hours) | 8760                 | 12-month interval  |

**Deemed Export Quantity = MEC x Capacity Factor x Export Factor x Provision Interval**

Deemed Export Quantity = 535.30 kWh (= 1.8 X 0.097 x 0.35 x 8760).

**Example 2: Residential customer where the "Provision Interval" is 6 months (= 4380 hours)**

| Input parameter to formula | Entry for Customer X | Comment  |
|----------------------------|----------------------|--|
| MEC (kW)                   | 1.8                  | As notified to ESBN using the NC6 form, assuming unity power factor. |
| Capacity Factor            | 0.097                | i.e., 9.7%, as decided by the CRU.                                   |
| Export Factor              | 0.35                 | i.e., 35%, as decided by the CRU.                                    |
| Provision Interval (hours) | 4380                 | 6-month interval   |

**Deemed Export Quantity = MEC x Capacity Factor x Export Factor x Provision Interval**

Deemed Export Quantity = 267.65 kWh (= 1.8 X 0.097 x 0.35 x 4380).

**Example 3: Business customer with MEC of 15kW and "Provision Interval" of 12 months (= 8760 hours)**

| Input parameter to formula        | Entry for Customer X | Comment   |
|-----------------------------------|----------------------|---|
| <b>MEC (kW)</b>                   | 15                   | As recorded by ESBN, and assuming unity power factor. |
| <b>Capacity Factor</b>            | 0.097                | i.e., 9.7%, as decided by the CRU.                    |
| <b>Export Factor</b>              | 0.35                 | i.e., 35%, as decided by the CRU.                     |
| <b>Provision Interval (hours)</b> | 8760                 | 12-month interval                                     |

**Deemed Export Quantity = MEC x Capacity Factor x Export Factor x Provision Interval**

Deemed Export Quantity = 4461.03 kWh (= 15 X 0.097 x 0.35 x 8760).