NETWORKS

CRU CONSULTATION: ‘REMUNERATION OF RENEWABLE SELF-CONSUMERS’ EXPORTED ELECTRICITY – INTERIM CLEAN EXPORT GUARANTEE’

ESB Networks Response

29 October 2021

Contents

1. Introduction

ESB Networks welcomes the opportunity to respond to the Commission for Regulation of Utilities' (CRU) consultation paper on 'Remuneration of renewable self-consumers' exported electricity – interim Clean Export Guarantee.' The interim Clean Export Guarantee (CEG) is a key component of the overall Microgeneration Support Scheme (MSS) being progressed by the Department of Environment, Climate and Communications (DECC) which seeks to encourage and incentivise uptake of microgeneration and mini-generation in Ireland. ESB Networks fully supports and is committed to facilitating the introduction of the MSS in Ireland as the MSS will represent an important element in the national approach to decarbonising electricity generation and assist in meeting Ireland's 2030 climate targets set out in the Climate Action Plan (CAP) 2019.

ESB Networks continues to engage extensively with DECC, CRU and retail market participants (MPs) with a view to agreeing the steps and actions necessary to implement the CEG in the electricity retail market and considers that implementation of the CEG should remain the primary focus for the retail electricity market in the near-term. ESB Networks fully supports CRU's position outlined in its consultation paper that an overarching requirement of the interim CEG should be a straightforward and practical framework which can be implemented quickly and easily, as this will facilitate remuneration of export sooner and mitigate the risk of adding additional complexity to the interim CEG solution.

Moreover, ESB Networks supports an approach where the implementation of additional requirements under the MSS (e.g. the Clean Export Premium) are done sequentially in order to give the retail electricity market the appropriate time to make the necessary changes to the retail electricity market. This is important in order to allow sufficient time for MPs to engage, discuss and agree on the changes required to facilitate wider requirements contained in the MSS which comes at a time where the retail electricity market is already undergoing profound changes.

ESB Networks appreciates the opportunity to respond to CRU's consultation and remains available to engage further with CRU regarding any elements of our consultation response at any time.

1.1 Role of ESB Networks

As Distribution System Operator (DSO), Distribution Asset Owner (DAO) and Transmission Asset Owner (TAO), ESB Networks works to meet the needs of all Irish electricity customers, providing universal access to the electricity system, and delivering and managing the performance of a system of almost 155,000 km of overhead networks, 23,000 km of underground cables and 640 high voltage substations. We also have a key role in the connection of generation to our systems. Currently there is approximately 4.75 GW of renewable generation connected to the Distribution and Transmission systems, from small scale microgeneration and mini-generation, through to large amounts of distributed and transmission-connected renewable generation. We have 2.4 million demand customers; and now several thousand "active customers" – including but not limited to domestic premises with microgeneration (a rapidly increasing number), demand side management, houses with battery storage, etc.

ESB Networks is also a key stakeholder in the delivery of CRU's National Smart Metering Programme (NSMP) which will be a key enabler for the interim CEG. To date, ESB Networks has installed over 500,000 smart meters in homes and small business throughout Ireland. Of these 500,000 smart meters, approximately 11,700 have been installed at sites with export capacity. This represents an important achievement for the NSMP and will enable those customers to be remunerated based on export measured through their smart meter.

ESB Networks also delivers a range of services to the Republic of Ireland (RoI) Retail Electricity Market servicing over 2.4 million customers. It manages relationships with Market Participants and provides data in a timely and accurate fashion on a daily basis. It supports the wider RoI market through the ring-fenced Meter Registration System Operator (MRSO) and Retail Market Design Service (RMDS) and supports the wholesale Single Electricity Market through the provision of aggregated meter data.

1.2 ESB Networks and microgeneration

ESB Networks fully recognises that enabling an increased penetration of microgeneration is an important target of the CAP and also that it plays a key role in enabling citizens in taking an active role in a decarbonised energy landscape. ESB Networks is proactively working to facilitate our customers on their decarbonisation journey. Recent leadership shown by ESB Networks in supporting this area includes the provision of a concise, simplified technical assessment of the impacts of microgeneration on the distribution network[1] as well as a microgeneration framework consultation[2] and subsequent response document[3].

As microgeneration is connected to the low voltage distribution network, ESB Networks has an important role in assisting our customers in connecting this renewable energy. Customers installing microgeneration are required to notify ESB Networks in advance. For microgeneration installation sizes up to 6kW (single phase) and up to 11kW (three phase) there is already a free of charge, simple and quick 'inform -and-fit' grid connection process, whereby the customer notifies ESB Networks of the installation by means of a valid NC6 application form and the appropriate Type Test Certification. Under the 'Inform and fit' process, ESB Networks accepts the information submitted to us, which is utilised to update the Maximum Export Capacity at the site, in good faith. In addition, in most cases ESB Networks will not identify any technical or location-specific issues, and so unless the customer hears from ESB Networks within 20 working days then the installation can proceed without any further correspondence with ESB Networks.

[1] https://www.esbnetworks.ie/docs/default-source/publications/assessment-of-the-scope-for-higher-penetrations-ofdistributed-generation-on-the-low-volage-distribution-network.pdf?sfvrsn=d2d501f0_0

[2] https://www.esbnetworks.ie/docs/default-source/publications/microgeneration-framework-consultation---may-2020final.pdf?sfvrsn=591d07f0_0

[3] https://www.esbnetworks.ie/docs/default-source/publications/0156-mg-summary---dec-2020.pdf?sfvrsn=757201f0_0

2. ESB Networks' response to consultation questions

'Section: 2.1 Centrality of metered export data'

Question 2.1: Do you agree with this proposal? Please include any additional rationale or basis for your view.

Smart Meter Deployment

ESB Networks supports CRU's proposals that remuneration based on smart meter export data is utilised insofar as practicable considering the interim nature of this solution. As referenced above, ESB Networks has already deployed smart meters to a sizeable cohort of customers with export capacity throughout the country which will allow these customers to be remunerated for their exported electricity. To aid customer understanding, ESB Networks recommends that CRU communicate clearly and explicitly in its decision paper which cohorts of customers will be eligible to have a smart meter installed over each phase of the NSMP (i.e. which cohorts of customers can be remunerated based on smart meter export data, which customers will be remunerated based on deemed export and at what point ESB Networks will be required to provide data to suppliers) to mitigate the risk of customer confusion and ensure a good customer experience.

ESB Networks supports the proposal that eligible customers will have a smart meter installed within four months of making a request. However, ESB Networks would request an implementation period is allowed before introduction of this requirement. This is to allow ESB Networks to implement working practices and processes within its deployment programme which affects ESB Networks and its' deployment contractors.

An implementation period would also allow all stakeholders engaging with customers to ensure that customer contact centres, websites and other materials are properly updated so that customer expectations are managed, and confusion minimised. Messaging around how to register for a meter, who with and what happens next will need to be agreed and socialised.

ESB Networks expects that the vast majority of eligible customers will have a smart meter installed within the four-month period proposed. However, there may be circumstances which could lead to a planned exchange being deferred to a point beyond the proposed four-month period. For example, we may receive thousands of requests for a smart meter on Day 1 which may not be practicable to schedule and exchange in a four-month window. Further, we may not be granted access to the customer's meter, we may find revenue protection

issues or discover safety or other technical issues affecting the meter exchange on the day. Similarly, if there are other network issues, such as following a storm, these may be prioritised over smart meter exchanges resulting in a necessary delay.

It may therefore be more appropriate to place a requirement for ESB Networks to complete a 'standard' smart meter exchange, where reasonably practicable, within four months of the customer request. Requiring ESB Networks to complete a 'standard' smart meter exchange will see the vast majority of meters installed within the four-month period, this will also allow for exceptional circumstances referred to above - such as revenue protection, technical issues affecting the exchange, etc. to be taken into account.

Finally, it should be noted that the introduction of this requirement will impact the current meter rollout volumes, timelines and costs. Resources are expected to be diverted to areas not currently serviced by deployment contractors resulting in more travel time and a consequential impact on the current meter installation rate and overall efficiency. ESB Networks will keep CRU informed of any material impact on the overall smart metering rollout programme.

No Data Scenarios

It is also important to note there may be instances where no smart meter export data will be available at sites where a smart meter has been installed by ESB Networks. Such instances where a smart meter is installed and on completion of its 30-day proving period no smart meter export data is available are expected to be low based on ESB Networks' analysis. Due to the interim nature of this solution, it will be important to limit the complexity associated with mitigating such instances so as not to risk the implementation of the interim solution. ESB Networks notes in CRU's consultation paper that it refers to instances where "where an export reading is unavailable" that "estimation" may be required. ESB Networks requests CRU makes clear in its decision paper whether it expects customers to be paid based on a 'deemed export' in such instances. Use of traditional estimates (i.e. estimates based on previous meter reading history) would lead to additional complexity for the interim solution. Allowing suppliers to execute and leverage the 'deemed export' calculation in these scenarios may be a pragmatic solution to ensure a good customer experience.

Deemed Export

ESB Networks support our customers with their decarbonisation journey and consider the interim suggestion of a deemed export solution can do that. ESB Networks considers an enduring solution based on metered data is the most appropriate, long term solution. ESB

Networks considers that the deemed export solution represents a sensible proposal put forward by CRU which will allow customers in the interim to be remunerated for export not currently measured by a smart meter and is a prudent and pragmatic approach.

ESB Networks notes also that CRU intends to cease operation of the deemed export in Phase Three of the NSMP when more metering options will become available e.g. three-phase meters and CT meters. ESB Networks recommends that CRU engage with ESB Networks and other retail market participants on the arrangements for transitioning from deemed export to a smart meter in such a time that it will allow for market design agreement and system readiness to ensure a good customer experience.

ESB Networks highlights that there may be a requirement to continue to run both interim and enduring solutions in parallel up until data for microgeneration enduring solution ‘go-live’ date -1 has been processed.

'Section: 2.2 Provision of metered export data and deemed export quantities by ESBN'

Question 2.2 (a): Do you agree with this proposal? Please include any additional rationale or basis for your view.

Provision of smart meter export data

ESB Networks supports CRU's proposal to leverage the NSMP insofar as is practicable to implement the interim CEG and ESB Networks supports the use of a deemed export calculation to facilitate instances where smart meter export data is not available. With a view to facilitating the successful implementation of the interim CEG, ESB Networks has been progressing work on new systems and mechanisms to provide smart meter export data to MPs outside of the Central Market Systems which are already undergoing profound change in the retail electricity market.

ESB Networks also supports CRU's proposal regarding provision of smart meter export data in the format and frequency set out in CRU's consultation paper. ESB Networks considers, in terms of format and frequency, that CRU's proposals mimics the approach already adopted for import in the retail electricity market which MPs are becoming more familiar with since the 'go-live' of smart services in February 2021. Further, ESB Networks considers CRU's proposal will also make the transition to the enduring microgeneration solution easier for all MPs when the enduring microgeneration solution is being implemented in Phase Three of the NSMP.

Legal Basis for provision of smart meter export data to suppliers

According to the General Data Protection Regulation (GDPR), personal data is defined as:

> "any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person;"

The advice received by ESB Networks is that export data relates to the customer associated with the relevant MPRN and therefore should be regarded as falling in with this definition and is therefore personal data. Therefore, ESB Networks requires a clear legal basis to be confirmed by CRU to allow ESB Networks to provide smart meter export data to suppliers and for use in settlement. ESB Networks also requires a clear legal basis to be confirmed by

CRU to allow ESB Networks provide the deemed export quantities to suppliers (should CRU introduce this requirement on ESB Networks in its decision paper).

Provision of Deemed Export Quantities

ESB Networks supports CRU's proposal to facilitate remuneration for those renewable self-consumers who may not be currently eligible for a smart meter and considers the proposed deemed export calculation to be a simple and straightforward method of calculating the deemed export quantities.

CRU's proposal that ESB Networks provide the deemed export quantities, if introduced, would likely result in additional complexity, customisation, time, resources and effort at a time of considerable change in the retail electricity market. ESB Networks considers it prudent to minimise additional complexity and customisation in-keeping with CRU's overall aim to keep the implementation of the interim CEG as simple and straightforward as possible.

ESB Networks recommends that electricity suppliers follow the CRU's deemed export calculation for the purposes of remunerating the customer with responsibility for calculating the deemed export quantities for settlement residing with ESB Networks. Requiring the supplier to calculate the deemed export will provide the supplier with far more implementation flexibility. Electricity Suppliers will have all of the relevant information required to execute CRU's deemed export formula.

An important clarification required in CRU's decision paper would be the Power Factor at which the MEC (which is expressed in kVA) is converted to kW, which are used in the CRU formula. For simplicity it is suggested that a Power Factor of unity is used as this will avoid customer confusion and given the need for approximation in other figures within the formula will not make a material difference to the results.

Question 2.2 (b): Do you think that settlement should occur at some other interval? Please provide your rationale for any alternative suggestion.

ESB Networks supports CRU's proposal with regard to settlement being performed on a M+13 basis. ESB Networks considers this approach will allow for much needed flexibility regarding provision of aggregated microgeneration data to SEMO for settlement.

‘Section 2.3 Determination of Deemed Export Quantity’

Question 2.3 (a) Do you agree with this proposal? Please include any additional rationale or basis for your view.

ESB Networks supports the use of deemed export for those customers who may not be eligible for a smart meter during this phase of the NSMP. ESB Networks considers that this represents a sensible proposal put forward by CRU which will allow customers to be remunerated for export not currently measured by a smart meter. It is important to note that by its very nature a deemed export will not be 100% accurate but ESB Networks considers that CRU’s proposal is a prudent and pragmatic approach for an interim solution.

ESB Networks supports CRU's proposed deemed export formula and considers that it represents a simple and straightforward formula for calculating deemed export volumes as part of the interim solution. ESB Networks supports CRU's intention to limit complexity associated with its proposed deemed export formula. ESB Networks also supports the inclusion of the deemed export quantities in settlement consistent with CRU's deemed export formula approach.

ESB Networks recommends that CRU consider including in its decision paper the energisation status of the MPRN i.e. if MPRN is de-energised the deemed export values are set to ‘0.’

As already noted in section 2.2, an important clarification required in CRU’s decision paper would be the Power Factor at which the MEC (which is expressed in kVA) is converted to kW, which are used in the CRU formula. For simplicity it is suggested that a PF of unity (i.e.1:1) is used as this will avoid customer confusion and given the need for approximation in other figures within the formula will not make a material difference to the results.

<u>Review of Deemed Export and interim CEG arrangements</u>

ESB Networks notes CRU's intention to review its Deemed Export Formula as part of its review of the operation of the CEG arrangements. ESB Networks requests that CRU engage with the retail electricity Market Participants when conducting its review and in advance of any decision on same to ascertain impacts, if any, on the retail electricity market.

Question 2.3 (b): Do you think that the Export Factor should be an alternative value? Please provide your rationale for any alternative suggestion.

Export Factor is based on best available information and in line with the methodology outlined in the Ricardo report.

'Section 3.2 Wholesale market settlement process'

Question 3.2 (a): Do you agree with this proposal? Please include any additional rationale or basis for your view.

ESB Networks broadly supports CRU's proposals with regard to settlement arrangements for the interim Clean Export Guarantee. However, it is important to highlight that there are limited options available to ESB Networks to make export quantities available in settlement to facilitate the interim Clean Export Guarantee. Moreover, the options available to ESB Networks are limited due to the fact that the interim solution is being implemented outside of the Central Market Systems.

ESB Networks has considered how to facilitate the interim CEG in terms of settlement and has put forward a prudent approach for consideration. As part of this approach, data will be manually made available by MRSO to Data Aggregation processes. This data will be subsequently netted from the total import per supplier unit and the netted value will be sent to Single Electricity Market Operator (SEMO) via the 590MM. All microgeneration export data will be uploaded only once for any processing period and will not be revisited.

It is also prudent to highlight that the proposed interim settlement solution will not have any interaction with the wholesale electricity market. Rather, ESB Networks will nett the generation exported (both smart meter export and deemed volumes) from each electricity suppliers' demand to allow electricity suppliers see the benefit. However, in-line with existing established meter data provider processes in the Single Electricity Market (SEM) for non-participating generators, ESB Networks will not pass the smart meter export data nor the deemed export quantities to SEMO.

ESB Networks strongly recommends that the current proposal put forth by ESB Networks via the Interim Retail Market Microgeneration (IRMM) Working Group be adopted.

Question 3.2 (b): Do you think that settlement should occur at some other interval? Please provide rationale for any alternative suggestion.

ESB Networks supports CRU's proposal with regard to settlement being performed on a M+13 basis. ESB Networks considers this approach will allow for much needed flexibility regarding provision of aggregated microgeneration data to SEMO for settlement.

'Section 3.3 Transitional arrangements'

Question 3.3: Do you agree with this proposal? Please include any additional rationale or basis for your view.

ESB Networks acknowledges CRU's proposal to 'backdate' provision of smart meter export data to suppliers and in settlement. However, ESB Networks expects that a lengthy 'backdating' period should be minimised due to the potential for backlog processing issues given the volume of data. ESB Networks acknowledge that a backdating period will be somewhat determined by the complexity of the interim solution and the time it takes for the retail market to be ready. The interim solution will need to be live in time to allow for a sufficient window to process the backlog in time for M+13 Settlement.

ESB Networks would appreciate clarity on the rules for 'backdating,' e.g. which customers are eligible and are their export quantities based on export values from smart meters or deemed export?

'Section 3.4 Switching to a new supplier'

ESB Networks supports CRU's proposal that a renewable self-consumer has a single MPRN associated with its meter which records both import and export separately. ESB Networks also supports CRU's proposal that, for the interim solution, it will not be possible to have one supplier for import and a different supplier for export. Automated electricity retail market processes and supporting IT systems have been designed on the principle that each MPRN is associated with one supplier, as a result ESB Networks considers that this proposal will limit complexity associated with the interim solution.

‘Section 4. Eligibility for remuneration via CEG’

Question 4 (a): Do you agree with the CRU’s proposals regarding eligibility for remuneration? Please include any additional rationale or basis for your view.

ESB Networks broadly supports CRU's proposals with regard to eligibility criteria. ESB Networks considers that the proposed eligibility criteria will limit the complexity associated with the interim solution. ESB Networks highlights that the proposed eligibility criteria be updated to clarify that renewable self-consumers seeking a connection, but which do not meet the parameters of microgeneration i.e. mini-generation (12kW-50kW) will be required to contact ESB Networks to apply for a connection.

In relation to the proposed eligibility criteria that the renewable self-consumer must be exporting to the network, ESB Networks wish to highlight that there is no market process in place for all sites that validates that a site has generation capacity and is exporting to the network. Under the ‘Inform and fit’ process, ESB Networks accepts the information submitted to us in good faith, which is then utilised to update the Maximum Export Capacity at the site.

For microgeneration in particular, it is important to highlight that in instances where a customer submits an NC6 form to ESB Networks which does not conform to the NC6 form requirements, ESB Networks will not process invalid application forms. When a valid NC6 form is submitted to ESBN, the MEC will only be updated in the Central Market System once the NC6 Form is processed by ESBN. The ‘Valid From’ date of the MEC will be the date the Form NC6 is processed by ESBN.

ESB Networks will ensure all eligible MPRNs are included in settlement whether they be based on metered export or approved deemed export formula.

Question 4 (b): Do you think that other eligibility criteria should apply? Please provide rationale for any alternative suggestion.

To provide clarity for customers, ESB Networks suggests that CRU highlight clearly and explicitly in its decision paper the cohorts of customers that will be eligible to have a smart meter installed over each phase of the NSMP. Providing this information will mitigate the risk of customer confusion and aid a positive customer experience

‘Section 5 CEG tariff and review of CEG operation’

Question 5.2: Do you agree with CRU’s proposal to review the CEG arrangements? Please include any additional rationale or basis for your view.

ESB Networks notes CRU's intention to review its Deemed Export Formula as part of its review of the operation of the CEG arrangements. ESB Networks requests that CRU engage with ESB Networks and Market Participants when conducting its review and in advance of any decision on same to ascertain impacts, if any, on the retail electricity market.

3. Further Observations

Retail Market Design and Implementation window

Although much progress has been made to date to initiate discussions with Market Participants on how to facilitate the implementation of the interim CEG, ESB Networks strongly recommends that CRU allow in its decision time for retail electricity market change control process and an adequate implementation window which will depend on the complexity of the solution that is agreed as part of the retail electricity market change control governance process. Consideration should also be given to any required market assurance activities.

Residual Error Impacts

SEMO may need to consider the impact on the Residual Error as a result of previously unrecorded spillage now being accounted for and ESB Networks recommend that SEMO is engaged in this regard. ESB Networks is willing to input to any engagements undertaken by CRU and SEMO.

4. Conclusion

The power sector is undergoing transformative change with the growth of low carbon technology and changing consumer preferences. Renewable energy of all scales, from large-scale to small-scale renewable generation, community energy renewable energy projects, and microgeneration, will all play a part in contributing to Ireland's decarbonisation goals. ESB Networks has an important role to play in facilitating this transformation. We aim to support our customers along each stage of the process as they adopt small-scale low carbon technologies and make the transition towards being active participants in the energy system.

ESB Networks welcomes the consultation from CRU regarding the remuneration of renewable self-consumers for exported electricity, which is a key goal of both the Clean Energy Package and the Climate Action Plan. ESB Networks acknowledges the many prudent and pragmatic proposals put forward by CRU in this consultation. In particular, ESB Networks considers CRU's proposed requirements regarding leveraging of smart meters and centrality of smart meter export data, eligibility criteria and settlement represent a sensible suite of proposals to facilitate introduction of the interim CEG.

ESB Networks considers that implementation of the interim CEG should remain the primary focus for the retail electricity market in the near-term and we fully support CRU's position outlined in its consultation paper that an overarching requirement of the interim CEG should be a straightforward and practical framework which can be implemented quickly and easily. This will facilitate remuneration of export sooner and mitigate the risk of adding additional complexity to the interim CEG solution.

ESB Networks looks forward to working closely with both CRU and Market Participants to ensure the successful implementation of the 'Interim Clean Export Guarantee' in the retail electricity market.

ESB Networks appreciates the opportunity to respond to this consultation and we remain available to discuss any element of our response with CRU at any time.