

Discussion Request 1213			Interim Retail Market Microgeneration Solution		
Status	Issued to Market	Priority	High	Status Date	26/01/2022

Date	Version	Reason for Change	Version Status
17/05/2021	1.0	Initial Draft	Draft
04/11/2021	1.1	Updated draft to include additional design detail, to reflect CRU consultation and migration to new MDR template	Draft
25/11/2021	1.2	Updated draft to reflect feedback from retail market participants	Draft
26/01/2022	1.3	Updated draft to reflect CRU 'Interim Clean Export Guarantee' decision (CRU/21/131)	Draft

Part 1 DETAIL OF DISCUSSION REQUEST / MARKET CHANGE REQUEST	
Requesting Organisation(s)	ESB Networks
Request Originator Name	Alan Keegan
Date Raised	17/05/2021

Classification of Request	
Change Type	Non-Schema Impacting

Detail of Request	
Reason for Request	

Background

Policy Drivers

The 'Climate Action Plan (CAP) to Tackle Climate Breakdown' was published in 2019 and contained a number of actions to promote microgeneration take-up. The CAP states that a new support scheme to support microgeneration was planned to be introduced by the Government in June 2021. The introduction of a new support scheme complements new European policy contained in the 'Clean Energy for All Europeans' package of legislation.

In January 2021, the Department of Environment, Climate and Communications (DECC) published its consultation paper on a new Microgeneration Support Scheme (MSS) with a 'Summary Report of

Submissions Received' paper published by DECC in June 2021. The MSS proposed the introduction of a 'Clean Export Guarantee' and a 'Clean Export Premium' to support the take-up of microgeneration in Ireland.

'Interim Clean Export Guarantee'

At the Industry Governance Group meeting on 25 August 2021, the Commission for Regulation of Utilities (CRU) informed retail market participants (MPs) that it has been tasked by DECC with developing regulatory policy regarding the 'Interim Clean Export Guarantee.' CRU informed MPs that it planned to consult and decide on new regulatory policy for the 'Interim Clean Export Guarantee' and set out indicative timelines for same.

CRU also indicated to MPs at the IGG meeting on 25 August 2021 that the Interim Retail Market Microgeneration (IRMM) Working Group would be reconvened by CRU to progress, in parallel, a Market Discussion Request / Market Change Request.

Interim Retail Market Microgeneration Working Group

CRU established the IRMM Working Group under the IGG in November 2020 with the intention of developing an interim solution for provision of export data to suppliers outside of the Central Market System.

ESB Networks (ESBN), working closely with CRU and working group members, developed two options to deliver an interim retail market microgeneration solution. The options developed were as follows:

- Option A – a non-metered / deemed export solution
- Option B – a smart metering + non-metered / deemed export solution

Market Participants were asked to feedback with a preference for either Option A or Option B and CRU were to decide on a preferred option to be developed as an MCR. This decision was deferred by CRU given the proximity of the availability of the DECC Microgeneration Support Scheme consultation.

Draft MDR1213

Following the publication of DECC's MSS consultation paper and CRU's subsequent consultation response, ESNB developed and circulated, in May 2021, a draft Market Discussion Request which

was heavily influenced by both DECC's MSS consultation paper and CRU's consultation response. The option outlined by ESNB in the draft MDR1213 at the time was known as 'Option C.' Considering CRU's update to the IGG on 25 August 2021 and the subsequent publication of CRU's 'Interim Clean Export Guarantee' consultation ([CRU/21/117](#)) on 1 October 2021, ESNB updated MDR1213 to reflect the journey to date and to also reflect the CRU's consultation proposals contained in CRU/21/117.

As per CRU's updated IRMM Working Group Roadmap presented at the IRMM Working Group 5 meeting on 14 October 2021, ESNB Networks has now updated draft MDR1213 to reflect the publication of CRU's 'Interim Clean Export Guarantee' decision (CRU/21/131) which was published on 1 December 2021.

Proposed Solution

Customer Microgeneration Application / Notification

A renewable self-consumer who wishes to install microgeneration technology must notify ESNB Networks (ESNB) that they intend to do so as per the CRU Decision Paper (CRU/07/208) via NC6 Form which can be found at this [link](#). For those sites above the definition of microgeneration and <50kW, the customer should submit an application form (NC7) to ESNB.

A customer who has previously submitted the relevant notification / application form and has an existing Maximum Export Capacity (MEC), is not required to re-submit the relevant notification / application form to ESNB.

If a customer is unsure if the relevant notification / application form has been submitted previously to ESNB, the customer can check with their supplier whether there is an MEC value at the site. Currently, ESNB provide an MEC value on specific Market Messages listed in this MDR. In advance of go-live, if required ESNB can make available another list of all MPRNs and their associated MEC value. Post-go live, MEC values will continue to be available via Market Messages and will also be made available via the Access Systems. (see 'Systems Updated and Supplier Notification' section below).

The MEC will only be updated in the Central Market System once the the relevant notification / application form is processed by ESNB. The 'Valid From' date of the MEC will be the date the NC6 Form is processed by ESNB.

If the supplier confirms that there is no MEC associated with the customer's MPRN, then the customer should complete the the relevant notification / application form and submit to ESNB. ESNB will not retrospectively update the MEC in the Central Market System.

If a customer requires a permanent change to their MEC then the customer should contact ESNB who will arrange for the MEC value to be updated on the Central Market System subject to the appropriate conditions being met.

ESNB cannot be held accountable for any discrepancy between the MEC value provided to ESNB versus the actual generation capacity at the premises. As per CRU's decision paper (CRU/21/131), ESNB is required however to review our process after 12 months of operation of CEG and to take any further steps necessary to mitigate the risk of fraudulent or manipulative activity. This may include an audit, including the post-installation inspection of a representative sample of new NC6 installations. The details of this review will be developed over the course of the first 12 months of the CEG.

Mini-Generation Applications

ESNB is in the process of introducing a new, simple and streamlined process (NC7 form) for those seeking a connection above microgeneration and <50kW – which ESNB defines as 'Mini-Generation'. The new streamlined process is expected to initially operate on a pilot basis and is subject to approval by CRU. For more information on the process for connecting minigeneration sites, please find more information on the ESB Networks website at this [link](#)

ESB Networks will assess if the mini-gen MPRN is eligible for a smart meter. If eligible, a smart meter will be installed. If not eligible, deemed data will be provided.

Sites above 50kW should follow existing Enduring Connection Policy processes. For sites above 50kW with export capability, a QH meter will be installed and follow the existing WP0014 process.

Assumption:

CRU's decision paper (CRU/21/131) highlights that ESNB does not record technology type. Therefore, ESNB does not require generation technology type to be updated and processed in the Central Market System and is outside the scope of requirements for the interim retail market microgeneration solution.

Field Works

As part of the Interim Clean Export Guarantee decision, renewable self-consumers will be required to complete the relevant notification / application form and to submit to ESBN. Upon passing validation, the MEC will be updated in the Central Market System. This will be the trigger for the accelerated smart meter installation process, where a site is eligible to have a smart meter installed. CRU will require ESBN to install a smart meter within four months of the renewables self-consumer's MEC being updated on the Central Market System. ESBN will adhere to this requirement but allowances need to be made for practical challenges including (but not limited to):

- Safety or other technical issues affecting smart meter installation on the day
- Revenue protection issues
- No access issues on the day
- Network issues which may result in a delay to the smart meter installation e.g. storms

Smart meter eligibility criteria:

As stated in CRU's decision paper (CRU/21/131), customers with 24 hour tariffs (MCC01) meters are currently eligible for a smart meter installation as part of the ESB Networks led deployment approach at the time of publication (1 December 2021). Please note, there are additional technical and other criteria which ESB Networks considers before a smart meter can be installed. These criteria may change as the SMART project evolves and new smart meters are introduced.

MCC02s

ESBN will provide deemed export quantities to the registered supplier for MCC02 sites by default. However, MCC02 sites will also be eligible for a smart meter via the 'Customer-Led' approach once MDR1215 is approved and a 'Customer-Led' process is implemented. Please note, there are additional technical and other criteria which ESB Networks considers before a smart meter can be installed.

ESBN will provide deemed export quantities to the registered supplier if a site that was ineligible becomes eligible for a smart meter. If NTNP, then deemed export quantities cease to be provided. If ESB Networks provides deemed export quantities while ineligible for a smart meter and will continue to provide deemed export quantities until a smart meter is installed or customer flagged as NTNP. MPRNs with a new MEC only receive deemed export quantities if they are ineligible for a smart meter at the time of MEC update i.e. if previously deemed export quantities flowed then they will continue to do so until a smart meter is installed or NTNP. Otherwise, deemed export quantities will not flow the same as proposed for MCC01.

Systems Updated and Supplier Notification

When ESNB receives the the relevant notification / application form, ESNB will process the submission. ESNB will then update the Central Market System with the MEC details contained in the the relevant notification / application form for that MPRN.

Currently, when the MEC for an MPRN is updated in the Central Market System, the supplier registered to that particular MPRN will receive a 301 Market Message¹ from ESNB. The 301MM provides to the registered supplier an update when there is a change in the meter point's characteristics.

The MEC value will be updated in the Central Market System to reflect the true value of the MEC as per the relevant notification / application form. The 301MM currently rounds down (e.g. 5.9 becomes 5). ESNB will correct the rounding used in the 301MM so that it aligns to the standard .5 up rounding (e.g. 5.5 becomes 6 and 5.4 becomes 5) that is used in the other Market Messages that contain the MEC. The MEC field is defined as an integer in the retail market messaging schema.

There will be a change to the Access Systems to allow the MEC value to be visible. The MEC value will be displayed as a decimal. Number of decimal places will be confirmed in a later version of the MCR.

Access Systems include:

- Extranet
- Webservice
- SFTS - Dom Reg downloadable file

When a smart meter is installed at a customer's premise, the registered supplier is notified via existing methods with no changes as a result of this MDR.

Note: Existing Market Messages will only provide information regarding import registers or channel to the registered supplier. No export register information will be provided on these Market Messages.

In advance of CRU's 'Interim Clean Export Guarantee' regulatory requirements coming into force:

- ESNB will provide each electricity supplier with their list of MPRNs with an MEC that are not QH.
- Please note, the MEC is also currently provided to the supplier via the following Market Messages where applicable:

¹ <https://rmdservice.com/wp-content/uploads/2021/02/301-Meter-Point-Characteristics.pdf>

- 101 MM
- 102 MM
- 105 MM
- 330 MM
- 101P MM
- 102P MM
- 301N MM

In summary, ESNB will make available to suppliers the following MPRN attribute and meter information:

- MEC
- Installed Smart meter details

Customers with an MEC but who are not currently entitled to a smart meter, will have their export estimated based on CRU's 'Interim Clean Export Guarantee' deemed export formula.

When ESNB, calculates the deemed export quantity per 30 minute interval, it will use the following formula:

$$\text{Deemed Export Quantity} = \text{MEC} \times \text{Capacity Factor} \times \text{Export Factor} \times 0.5$$

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.

Export Data Provision

As per CRU's decision paper (CRU/21/131), CRU has determined that ESNB is required to provide half-hourly export energy data to suppliers for all microgeneration self-consumers from the end of June 2022. Therefore, where smart meter export data is available:

Smart meter export data will be provided on a calendar day basis at D+1 for communicating meters to the registered supplier for the MPRN / read date in the following format:

- Cumulative 24hr register read
 - Via xml file format based where possible on 345MM structure. The new xml file format is referred to, in this document, as the 345 xml file. This is not necessarily the exact same as the 345 xml Market Message
 - Files will be made available via the Secure File Transfer Service (SFTS) for the supplier to download
- HH export intervals
 - Via xml file format based where possible on 343MM structure. The new xml file format is referred to, in this document, as the 344 xml file. This is not

necessarily the exact same as the to be defined 344 xml Market Message which is expected to be delivered as part of Schema Release V15.00.00.

- Files will be made available via the SFTS for the supplier to download

The above will be provided to suppliers regardless of Meter Configuration Code of the MPRN in the Central Market System.

ESBN will require the legal basis for export data provision to Market Participants in advance of MCR implementation.

Deemed export provision for MPRNs not eligible for a smart meter

CRU's decision paper (CRU/21/131) states that the deemed export quantities will be calculated by ESBN based on the formula decided on by CRU and made available to the customer's registered supplier by ESBN from the end of June 2022.

CRU's decision paper (CRU/21/131) also requires flat profiling of deemed energy quantities (i.e., an annual assumption for the deemed energy which is evenly divided across all settlement intervals). The need for the calculation of deemed quantities approach will cease on completion of Phase 3 of the National Smart Meter Programme.

ESBN proposes to provide these deemed export quantities to the registered supplier for MPRNs which are not eligible for a smart meter. Deemed export quantities will be provided on a calendar day basis at D+1 to the registered supplier for the MPRN / read date in the following format:

- Deemed export intervals
 - Via 344 xml file format similar to the actual interval values.
 - The deemed intervals will have an interval status of 'DEEM.'

Files will be made available via the SFTS for the supplier to download

Export Data Provision (Transitional Arrangements)

As per CRU's decision paper (CRU/21/131), it is expected that renewable self-consumers will be eligible for remuneration from 'Day 1.' The granularity of such export data is proposed by the CRU to be no different to the solution for the interim solution as outlined in the 'Export Data Provision' section.

Therefore, ESBN proposes to make available the smart meter export data (in 24hr register and HH interval format) where available to suppliers retrospectively back to 'Day 1.' As per CRU's decision paper (CRU/21/131), ESBN will be required to make available export data retrospectively back to

'Day 1' from the end of June 2022. ESNB may suggest to spread the processing of the backdating period over a practical period of time to allow for any volume processing issues.

Deemed Export Provision (Transitional Arrangements)

CRU's decision paper states that the deemed export quantities will be calculated by ESNB based on the formula proposed by CRU and made available to the customer's registered supplier by ESNB. ESNB will make the deemed export quantities available to the registered supplier backdated to 'Day 1.' As per CRU's decision paper (CRU/21/131), ESNB will be required to make available the deemed export data retrospectively back to 'Day 1' from the end of June 2022. ESNB may suggest to spread the processing of the backdating period over a practical period of time to allow for any volume processing issues.

Detailed Market Documentation

Please note, updated detailed market design documentation (including file formats) will be provided after the MCR is approved.

Where smart meter export data is not available

Due to the interim nature of the solution among other factors, ESNB is limited in what it can facilitate outside of the Central Market Systems in terms of smart meter export data. However, ESNB will provide deemed interval values when the customer has a smart meter but no smart meter export data is available. The deemed intervals will have an interval status of 'DEEM' in the 344 xml file.

Deemed export values will never be replaced with actual values.

The 345 xml file will only be provided for MPRNs and Read Dates where ESNB have the complete day's actual interval values. The 345 xml file will not consider deemed interval values

The 344 xml file may contain data for an MPRN / Read Date combination with interval statuses of deemed and another MPRN / Read Date combination that will have interval statuses of actual. i.e. there will not be separate 344 xml files for deemed and actual

Deemed values may be provided regardless of CTF value. A higher CTF value reduces (but does not remove) the probability of deemed values being provided.

The following are a suite of scenarios listed here in order to provide clarity on what can be expected:

Number	Scenario	Retail Market Impact
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1.	All Data arrives and passes all validations	Supplier receives files populated with smart meter export data
2.	No smart meter export data for 7 days	<p>Days 1 to 7: Neither 344 xml file nor 345 xml file</p> <p>Day 8: 344 xml file for Day 1 containing deemed export</p> <p>Day 9:</p> <ul style="list-style-type: none"> • 344 xml file for <ul style="list-style-type: none"> • Day 2 containing deemed export for all intervals • Day 8 containing Interval Export Data <p>345 xml file for Day 8 containing Cumulative Export Data</p>
3.	Partial data available / Data validation failure	<ul style="list-style-type: none"> • 344 xml file for previous day containing deemed export data • No 345 xml file data provided
4.	De-energisation	<ul style="list-style-type: none"> • 344 xml file for previous day containing Interval Export Data • 345 xml file for previous day containing Cumulative Export Data • 344 xml file for day of de-energisation containing deemed export data • Day after de-energisation, no files sent to suppliers
5.	Re-energisation	<ul style="list-style-type: none"> • 344 xml file for day of re-energisation containing deemed export data <p>Two days after re-energisation:</p> <ul style="list-style-type: none"> • 344 xml file for 'Day after re-energisation' containing Interval Export Data • 345 xml file for 'Day after re-energisation' containing Cumulative Export Data
6.	Smart meter removed or replaced with legacy meter	No files sent to suppliers as there is no actual data available. Deemed data is not provided for MPRNs that are eligible for a smart meter where a smart meter is not installed
7.	Smart meter replaced with a smart meter	<ul style="list-style-type: none"> • 344 xml file for exchange date containing deemed export data • No 345 xml file data provided

Where smart meter export or deemed export data needs to be re-sent

In the event of a backdated Change of Supplier or Change of Supplier Cancellation, the smart meter export or deemed export data will be re-issued to the registered supplier currently registered for the read dates that were previously sent to a different supplier. This correction of recipient will be executed in line with the proposed daily processing.

Settlement

‘Interim Clean Export Guarantee’

- ESBN will aggregate and upload all microgeneration export data for each supplier in advance of M+13 settlement, 65 days in arrears, the following dates are used for illustrative purposes only and will be finalised when more clarity is forthcoming on the transposition of the SI:
 - January 2023 (back to January 2022 to September 2022 approximately)
 - October 2023 (back to October 2022 to July 2023 approximately)
 - August 2024 (back to August 2023 to April 2024 approximately)
 - May 2025 (May 2024 to January 2025 approximately)
 - September 2025 (February 2025 to August 2025 before the enduring solution is implemented)
- The aggregation of microgeneration data at MPRN level will be executed outside of the Central Market System
- Each supplier will be required to nominate a supplier unit to MRSO in advance of October 2022 for all of their microgeneration export for the entirety of the interim retail market microgeneration solution
- The microgeneration data aggregated outside of the Central Market System will be a summation of all the microgeneration data for the nominated supplier unit per 15 minutes and in kilowatts. Details of this can be found below:
 - Step One Metered data
 - Each smart meter 30 minute interval data is copied into two 15 minute intervals and summed for each supplier unit per 15 minute interval
 - Step Two Deemed export
 - For eligible MPRNs that are not entitled to a smart meter ESBN will calculate the deemed quantities per 15 minute interval.
 - For eligible MPRNs with a smart meter but no smart meter data available for the period in question, ESBN will interpolate deemed values using the CRU deemed export formula.
 - For eligible MPRNs that are entitled to a smart meter, ESBN will not aggregate deemed values for the period between the customer becoming eligible and the smart meter installation date -1.
 - Step Three Metered + Deemed

- Metered interval data per 15 minutes will be summed with the deemed export data per 15 minutes
- The above data will be manually made available by MRSO to Data Aggregation processes that run for the settlement dates where the data has been uploaded. The Data Aggregation processes will convert the KW to kWh
- The aggregated microgeneration data will be flagged as estimated
- Microgeneration data can be loss adjusted at the aggregate level. Site specific loss factors cannot be applied at a microgeneration MPRN level. ESNB will apply the LV DLAF profile for microgeneration data subject to confirmation
- Loss-adjusted microgeneration data will be netted from the total import per supplier unit and the netted value will be sent to SEMO via the 590MM
- Suppliers will receive a copy of the 590MM via the 596MM as they currently do
- Suppliers will receive a copy of the microgeneration aggregated quantities via the 598MM
 - MRSO will inform suppliers of the Export Arrangement Reference Number that identifies the aggregated microgeneration total in advance of the first time they receive the 598MM
- All microgeneration export data will be uploaded only once for any processing period and will not be revisited

Please note ESNB will aggregate and upload all microgeneration export data as part of this settlement process regardless of any other eligibility criteria that is yet to be defined.

Existing schemes

MPRNs in existing microgeneration scheme will be subsumed into the interim retail market microgeneration solution. Where an MPRN is entitled to a smart meter, a smart meter will be installed. Where a smart meter is not installed, these MPRNs will be treated the same as other MPRNs with microgeneration capacity who do not have a smart meter installed.

For those MPRNs entitled to a smart meter (at solution go live) MRSO will cease providing QH export data once the existing meter has been replaced with a smart meter, MRSO will seek to agree a practical date for stopping all data provision for existing schemes with existing pilot scheme participant suppliers.

Customer Engagement regarding the transition of the Pilot Scheme to the Microgen Support Scheme will be Supplier-led.

Eligibility

Metered export:

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;
- the renewables self-consumer must be exporting electricity to the network based on data transmitted to ESBN;
- the renewables-self consumer must have installed microgeneration and must have informed ESBN of their intention to install microgeneration via a declaration using the NC6 or equivalent form; and
- they must have a smart meter installed to meter their exported electricity. Under the export metered quantity arrangements, the exported quantity recorded and provisioned by ESBN is the final determination of the quantity of export for which customers are to be paid by suppliers.
- 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

Deemed export:

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;
- the renewables-self consumer must have installed microgeneration and must have informed ESBN of their intention to install microgeneration via a declaration using the NC6 or equivalent form; and
- their meter type is not eligible for a smart meter installation as part of the ESBN 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 ESBN is the final determination of the quantity of export for which customers are to be paid by suppliers
- 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

NTNPs

Customers that refuse or previously refused a smart meter (NTNP) will be ineligible for remuneration. Customers that 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, ESNB will provide either deemed export quantities or actual smart meter export data to the registered supplier from the date of meter installation. The current processes for updating an NTNP status will be utilised in this regard and no changes are proposed arising from this MDR.

The interim solution will be superseded by the enduring solution.

Scope of Change

Design Documentation	Business Process	DSO Backend System Change	MP Backend System Change	Tibco	Supplier EMMA	Schema	Webforms	Webservice	Extranet Market Website
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Market Messages

Message No.	Message Name	
301	Meter Point Characteristics	Yes

Data Definitions

No Impact

Data Codes
No Impact

Market Message Implementation Guides	
Message Guide	Yes/No
No Impact	No Impact

Market Process Diagrams – MPDs			
Market Process Number	Market Procedure	Affected	
No Impact		Yes	

Guidance Documentation		
Document	Version	Affected
No impact		No Impact

Briefing Document		
Briefing Document	Affected	
Downloadable Meter Point Files Guide	Y	
MPRN Enquiry Webservice Guide	Y	
Retail Market Participant Extranet Website	Y	

User and Technical Documents			
Reference	Name	Version	Affected
No impact			No Impact

Comments

Part 2 - Performance and Data Changes	
Market Messages volume, processing etc.	
Data	
Details of Data changes e.g. cleansing	

Approved by	CRU

