

Network Codes: Consultation on Requirements for Generators (RfG) Banding Thresholds in Northern Ireland

TSO “Minded To” Position

14 July 2017



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Executive Summary

The Network Code Requirements for Generators (RfG) established under COMMISSION REGULATION (EU) 2016/631¹ is one of three Connection Codes which form part of the European Network Codes. It seeks to provide a clear legal framework for grid connections and facilitate electricity trading whilst ensuring system security, facilitating the integration of renewable energy and ensuring a more efficient use of the network.

The RfG 'entered into force' on 17 May 2016, however an implementation period is allowed for. The RfG only applies to generators that have concluded a final and binding contract for the purchase of their main generating plant after 17 May 2018. Article 4(3) allows TSOs to consider retrospection subject to a Cost Benefit Analysis (CBA), however the TSO does not intend to seek retrospection at this time.

The RfG defines the requirements applicable to new generators with a Maximum Capacity² of 800 W or greater. Generators are placed into one of four 'type' categories A-D which provide for a sliding scale of technical capabilities to support System Operators. These categories are as defined in Article 5 of the RfG (see Appendix 1) and are based on:

- the synchronous area;
- the maximum capacity of the power generating module (PGM); and
- the connection point voltage level.

As part of the national implementation of RfG, the relevant TSO of each member state is required to set banding thresholds within these maximum values. TSOs can either apply the maximum MW boundaries as defined in Table 1 of Article 5 or, where it is reasonable (e.g. for reasons of system security), choose lower values.

Article 5 (3) requires the TSO to carry out a public consultation lasting at least one month on these thresholds (see Article 10 in Appendix 2).

In a consultation document³ issued on April 7th 2017 the TSO set out its proposals for the banding thresholds for Northern Ireland. In summary, the TSO did not propose to reduce the lower boundary of the bands below the maximum limits allowed for in Article 5. The TSO considered the limits provided in Article 5 to be adequate.

Industry views on the proposals were sought until 15th May 2017. The responses were generally in support of the proposals and are summarised in this document.

Therefore the TSO is minded to set the boundaries as described in the Consultation document, pending completion of the second RfG consultation on Parameter selection.

¹ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0631&from=EN>

² Maximum Capacity is the maximum continuous active power which a power generating module can produce, less any demand associated solely with facilitating the operation of that power generating module and not fed into the network. This is not the same as Maximum Export Capacity.

³ <http://www.soni.ltd.uk/Consultations/>

These proposed boundaries shall form the basis of the assessment being undertaken by the TSO to establish and consult upon the non-exhaustive RfG parameters. These parameters can be different across the different bands. As such it is possible that in establishing the parameters the SOs or industry consider a change in the banding thresholds is required. Following the SO consultation on RfG requirements later this year, a final submission on the thresholds shall be made to the relevant Regulatory Authority (NIAUR) for approval.

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1. Background

1.1. Consultation

As required by Article 5 of the RfG, the TSO issued a Consultation Document entitled “*Network Codes: Consultation on Requirements for Generators (RfG) Banding Thresholds in Northern Ireland*” (hereafter referred to as the “Consultation Document”). The Consultation Document was issued by SONI (hereafter, the TSO) on April 7th 2017 setting out its proposals for the banding thresholds for Northern Ireland. It is available to download from the SONI website⁴. The consultation ran until May 15th 2017. An identical position was proposed by EirGrid for Ireland and the consultation ran for the same time period.

1.2. Proposal Summary

The proposal relates to the D/C, C/B and B/A boundaries for the generation Types as defined in Article 5 of the Requirement for Generators (RfG). Table 1 below shows the allowed boundary ranges for Northern Ireland and the boundary proposal by the TSO.

Table 1 Proposed Boundaries

Boundary	Allowed boundary range (MW)	Boundary proposed by TSO (MW)
D/C	0.0008 – 10	10
C/B	0.0008 – 5	5
B/A	0.0008 – 0.1	0.1

Note the following:

- Power Generating Modules (PGMs) connected at voltages levels of 110 kV or higher are automatically classified as a Type D.
- PGMs with a maximum capacity of less than 0.0008 MW (800 W) do not have to comply with the RfG.

The proposal is shown graphically in Appendix 3.

1.3. Feedback Sought

Feedback on the Consultation Document was sought. In particular we sought views via the following questions:

- Do you agree with the banding proposals as set out in this paper?
- Do you believe that lower thresholds should have been considered?
- If yes, please explain what levels you would have proposed?

⁴ <http://www.soni.ltd.uk/Consultations/>

- If yes, please explain why including any costs/benefits/savings you believe will materialise from your proposal?
- If yes, do you believe your levels facilitate Grid and Distribution Code objectives?
- Do you agree with the removing of the existing Types A, B and C in the NIE Networks Distribution Code?
- Are there any other considerations you believe the TSO should consider in finalising the proposals?
- Any other comments.

Keep the following in mind whilst preparing your response:

- The TSO does not intend on applying the requirements retrospectively at this time;
- Changes cannot be made for three years;
- Requirements are only applicable to generation that have concluded a final and binding contract for the purchase of the main generating plant after 17th May 2018; and
- RfG requirements are based on Maximum Capacity and not Maximum Export Capacity (MEC).

2. Feedback Received

In Northern Ireland we received two responses. The responses are considered below under the following topics:

- the boundaries,
- interaction with other codes,
- the definition of maximum capacity,
- the Distribution Code types,
- type testing, and
- the frequency of stakeholder fora.

Each topic is considered separately below.

2.1. Thresholds

As can be seen in the consultation document and in Table 1 above, this proposal chose the least restrictive limits allowable for the synchronous area of Ireland and Northern Ireland. The ranges allowed for the synchronous area of Ireland and Northern Ireland are specified by the RfG which was entered into force on 17 May 2016. Consultation on the RfG itself has already concluded. Further information on the decision surrounding the limits is set out in the ENTSOE document entitled *Network Code for Requirements for*

*Grid connection Applicable to all Generators Frequently Asked Questions*⁵, dated 19 June 2012, specifically FAQ numbers 5, 6 and 7.

Both respondents agreed with the banding proposal. No consultation responses indicated a preference to drop the boundaries below the levels proposed.

2.2. Interaction with Other Codes

This paper indicates the “Minded-To” position of the TSO. It is proposed to finalise the proposal following on from the consultation on the non-exhaustive parameters. The TSO will also reconsider the thresholds if any significant changes are made to the current drafts of the Emergency and Restoration Network Code and the System Operation Guidelines. In any event the bands proposed are the least onerous allowable, however if any discrepancy with the Emergency and Restoration Network Code and the System Operation Guidelines becomes apparent this will be taken into consideration in the final proposal to the Regulatory Authority.

No comments were received this topic in Northern Ireland.

2.3. Maximum Capacity

It is possible that the adoption of the Maximum Capacity definition under the RfG could result in existing generators, who had previously been outside the remit of the Grid Code, being incorporated into the requirements under the Emergency and Restoration Network Code and the System Operation Guidelines.

However Significant Grid Users under the Emergency and Restoration Network Code and the System Operation Guidelines do not include Type A generators. Furthermore the proposed thresholds are the least onerous that can be proposed.

No comments on this topic were received in Northern Ireland.

2.4. Distribution Code Types

Both respondents answered the specific question on the removal of Types A, B and C in the NIE Networks Distribution Code. Both respondents were in agreement with the proposal.

⁵ [http://www.acer.europa.eu/Media/News/Documents/120626%20-%20NC%20RfG%20-%20Frequently%20Asked%20Questions%20\(2\).pdf](http://www.acer.europa.eu/Media/News/Documents/120626%20-%20NC%20RfG%20-%20Frequently%20Asked%20Questions%20(2).pdf)

2.5. Stakeholder Fora

EirGrid facilitated an all-island Stakeholder Forum to present the Banding Proposals in advance of the consultation. The Regulatory Authorities in conjunction with EirGrid and SONI intend on hosting regular Stakeholder Fora going forward.

No comments on this topic were received in Northern Ireland.

3. Conclusion

The TSO's minded-to position is to adopt the proposals as set out in the Consultation Paper dated 7 April 2017 and summarised in Section 1 above and shown in Appendix 3 below.

During the consideration and preparation and consultation of the non-exhaustive requirements for the RfG, the TSO will reassess the appropriateness of this minded-to position and make a final proposal to the Regulatory Authority for approval. The TSO will also reconsider the minded-to position for the thresholds if any significant changes are made to the current drafts of the Emergency and Restoration Network Code and the System Operation Guidelines.

If you require any further information please email SONI at gridcode@soni.ltd.uk or NIE Networks at lsg.nto@nienetworks.co.uk .

Appendix 1 - Article 5

Article 5, sections 2, 3 and 4 state⁶:

“2. *Power generating modules within the following categories shall be considered as significant:*

- (a) *connection point below 110 kV and maximum capacity of 0.8 kW or more (type A);*
- (b) *connection point below 110 kV and maximum capacity at or above a threshold proposed by each relevant TSO in accordance with the procedure laid out in paragraph 3 (type B). This threshold shall not be above the limits for type B power generating modules contained in Table 1;*
- (c) *connection point below 110 kV and maximum capacity at or above a threshold specified by each relevant TSO in accordance with paragraph 3 (type C). This threshold shall not be above the limits for type C power generating modules contained in Table 1; or*
- (d) *connection point at 110 kV or above (type D). A power generating module is also of type D if its connection point is below 110 kV and its maximum capacity is at or above a threshold specified in accordance with paragraph 3. This threshold shall not be above the limit for type D power generating modules contained in Table 1.*

Synchronous areas	Limit for maximum capacity threshold from which a power generating module is of type B	Limit for maximum capacity threshold from which a power generating module is of type C	Limit for maximum capacity threshold from which a power generating module is of type D
<i>Continental Europe</i>	<i>1 MW</i>	<i>50 MW</i>	<i>75 MW</i>
<i>Great Britain</i>	<i>1 MW</i>	<i>50 MW</i>	<i>75 MW</i>
<i>Nordic</i>	<i>1.5 MW</i>	<i>10 MW</i>	<i>30 MW</i>
<i>Ireland and Northern Ireland</i>	<i>0.1 MW</i>	<i>5 MW</i>	<i>10 MW</i>
<i>Baltic</i>	<i>0.5 MW</i>	<i>10 MW</i>	<i>15 MW</i>

Table 1: Limits for thresholds for type B, C and D power generating modules

3. *Proposals for maximum capacity thresholds for types B, C and D power generating modules shall be subject to approval by the relevant regulatory authority or, where applicable, the Member State. In forming proposals the relevant TSO shall coordinate with adjacent TSOs and DSOs and shall conduct a public consultation in accordance with Article 10. A proposal by the relevant TSO to change the thresholds shall not be made sooner than three years after the previous proposal.*

4. *Power generating facility owners shall assist this process and provide data as requested by the relevant TSO.”*

⁶ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0631&from=EN>

Appendix 2 – Article 10

Article 10 states⁷

“Public consultation

- 1. Relevant system operators and relevant TSOs shall carry out consultation with stakeholders, including the competent authorities of each Member State, on proposals to extend the applicability of this Regulation to existing power-generating modules in accordance with Article 4(3), for the proposal for thresholds in accordance with Article 5(3), and on the report prepared in accordance with Article 38(3) and the cost-benefit analysis undertaken in accordance with Article 63(2). The consultation shall last at least for a period of one month.*
- 2. The relevant system operators or relevant TSOs shall duly take into account the views of the stakeholders resulting from the consultations prior to the submission of the draft proposal for thresholds, the report or cost benefit analysis for approval by the regulatory authority or, if applicable, the Member State. In all cases, a sound justification for including or not the views of the stakeholders shall be provided and published in a timely manner before, or simultaneously with, the publication of the proposal.”*

⁷ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0631&from=EN>

Appendix 3 – Minded-to Position Diagram

