Derogation Criteria for the Requirements for Generators Network Code

Decision Paper

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Regulating Water, Energy and Energy Safety in the Public Interest

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Executive Summary

Commission Regulation (EU) 2016/631 Requirements for Generators (RfG)\(^1\) of 14 April 2016 is one of a suite of European network codes and guidelines that have been developed following implementation of the European Third Energy Package. The RfG outlines tasks and responsibilities for National Regulatory Authorities, generation owners, network operators and system operators. The RfG allows generators, or power-generating modules (PGMs)\(^2\), to seek derogations from the requirements of the RfG.

On 10 February 2017 the CER published a public consultation on the criteria for granting derogations pursuant to Articles 62 and 63 of the RfG - CER/17/013. In this consultation paper the CER proposed the criteria that the CER will apply when a derogation from one or more provisions of the RfG is considered.

The CER received three responses to the consultation paper. The full response documents are published on the CER’s website alongside this Decision Paper. None of the respondents opposed any of the proposed criteria.

The CER will carry out a holistic assessment against all of the criteria and the CER’s decision will depend on the specific case. In other words, the application will be viewed in the round against the criteria, failure to meet an individual criterion will not necessarily mean that the application fails.

Following consideration of the consultation responses the CER has decide to adopt the following criteria:

- The Impact on the Electricity System of Non-compliance;
- The Reason for Non-compliance/Technical Limitation;
- The Level of Non-compliance and Efforts Made to Improve/Achieve/Maximise Compliance;
- The Costs Involved to Achieve Compliance;
- The Impact on the Interests of Consumers/Other Parties;
- The Potential for Discriminating Treatment of Existing PGMs;
- The Effect on Cross-Border Trade;
- The Cost-Benefit Analysis Pursuant to Requirements of the RfG Article 39;
- The Required Duration of Derogation.

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\(^2\) A ‘Power-generating module’ is defined in the RfG as either a ‘synchronous power-generating module’ or a ‘power park module’. A ‘synchronous power generating module’ means an indivisible set of installations which can generate electrical energy such that the frequency of the generated voltage, the generator speed and the frequency of network voltage are in constant ratio and thus in synchronism. A ‘power park module’ means a unit or ensemble of units generating electricity which is either non-synchronously connected to the network or connected through power electronics, and that also has a single connection point to the transmission system, distribution system including closed distribution system or HVDC system.
The CER considers that the derogation assessment criteria proposed will allow the CER to appropriately assess any future RfG derogation requests and ensure that the CER continues to protect the interest of consumers.

Public Impact Statement

The RfG should help make it easier and more efficient to operate the electricity system, by introducing a common, clear set of requirements which every new generator connecting to the electricity network across Europe will need to meet. The swift completion of a fully functioning and interconnected internal energy market in Europe is crucial to maintaining security of energy supply, increasing competitiveness and ensuring that all consumers can purchase energy at affordable prices.

The RfG should also assist the creation of a pan-European market for generation technology, by increasing the commonality of generator requirements. This should help improve competition between manufacturers and make it cheaper to build PGM technology, thus reducing costs for consumers.

Together, the network codes will facilitate the achievement of the three objectives of the Third Package:

- The secure operation of European power systems;
- The integration of large volumes of low carbon generation; and
- The creation of a single European electricity market.
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## Glossary of Terms and Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation or Term</th>
<th>Definition or Meaning</th>
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<tbody>
<tr>
<td>RfG</td>
<td>Commission Regulation (EU) 2016/631 of 14 April 2016 on Requirements for Generators</td>
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<tr>
<td>TSO</td>
<td>Transmission System Operator</td>
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<tr>
<td>DSO</td>
<td>Distribution System Operator</td>
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<td>PGM</td>
<td>Power-generating modules</td>
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1 Introduction

1.1 Commission for Energy Regulation

The CER is Ireland’s independent energy and water regulator. The CER was established in 1999 and now has a wide range of economic, customer protection and safety responsibilities in energy. The CER is also the regulator of Ireland’s public water and wastewater system. At a high-level, the CER’s overall mission is to act in the interests of consumers is to ensure that:

- Energy and gas are supplied safely;
- The lights stay on,
- The gas continues to flow;
- There is a reliable supply of clean water and efficient treatment of wastewater;
- The prices charged are fair and reasonable;
- The environment is protected; and
- Regulation is best international practice.

Further information on the CER’s role and relevant legislation can be found in here.

1.2 Background

The European network codes intend to deliver a harmonised set of rules for the operation of the gas and electricity sector in Europe. Commission Regulation (EU) 2016/631 of 14 April 2016 (RfG) is one of a suite of European Electricity network codes and guidelines that have been developed following implementation of the Third Package.³

The RfG entered into force on 17 May 2016. The RfG is one of three regulations related to grid connection that specify the requirements that apply to power-generating facilities seeking to connect to the electricity network (at transmission or distribution level). The RfG sets out the technical requirements that will apply to the majority of new generation connections (for any power generating module greater than 800W) and does not apply to existing generators.⁴ Existing Power generating modules (PGM)⁵ are not subject to

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⁴ See Article 4 of the RfG

⁵ A ‘Power-generating module’ is defined in the RfG as either a ‘synchronous power-generating module’ or a ‘power park module’. A ‘synchronous power generating module’ means an indivisible set of installations which can generate electrical energy such that the frequency of the generated voltage, the generator speed and the frequency of network voltage are in constant ratio and thus in synchronism. A ‘power park module’ means a unit or ensemble of units generating electricity which is either non-synchronously connected to the network or connected through power electronics, and that also has a single connection point to the transmission system, distribution system including closed distribution system or HVDC system.
the requirements of the RfG except where a type C or D PGM is modified to the extent where its connection agreement has to be substantially revised. In addition the National Regulatory Authority may decide, following an application by the TSO to require compliance by an existing PGM.

The RfG will apply to all grid connected generators with a maximum generating capacity above 800W. The below table details the PGM classes for Ireland and Northern Ireland as set out in the RfG. EirGrid and SONI are currently consulting on the banding thresholds for each jurisdiction.

<table>
<thead>
<tr>
<th>Type A</th>
<th>Type B</th>
<th>Type C</th>
<th>Type D</th>
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<tr>
<td>0.8kw</td>
<td>0.1 – 4.99·MW</td>
<td>5 – 9.99·MW</td>
<td>10MW&lt;</td>
</tr>
</tbody>
</table>

The RfG allows PGMs and relevant system operators to seek derogations from the CER from one or more of the provisions of the RfG. Moreover, RfG Article 62 (12) allows for third parties to apply for derogations on behalf of a power-generating facility owner, or a prospective owner for Type A generators. The RfG contains articles that describe the process for derogating from the RfG. Derogation requests from Power generation facility owners or prospective owners are to be filed with the relevant System Operator (DSO or TSO). Additionally relevant System Operators can also file requests for a derogation from the RfG with the Regulatory Authority for classes of power generating modules connected or to be connected to their network. The RfG gives the CER the role of reviewing, and making decisions on the RfG derogation requests. At the end of the implementation phase, the CER may review and if necessary revise and refine the criteria to assess derogation requests under the RfG. The RfG provides for the revision and modification of the criteria, at most once a year.

The CER notes that the full implementation of the requirements of the RfG will entail changes to Grid Code requirements, connection contracts etc. for new generators, which the TSO and DSO are currently assessing. The full suite of implementation processes and requirements for the RfG are required to be in place by 17 May 2018.

### 1.3 Legal Background

Regulatory authorities may grant power-generating facility owners or prospective owners, relevant system operators or relevant TSOs derogations from one or more provisions of the RfG for new and existing PGMs in accordance with Articles 61 to 63 of the RfG. A regulatory authority may revoke a decision granting a derogation if the circumstances and underlying reasons no longer apply or upon a reasoned

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6 The type C and D PGM’s are not the same as type C and D generators in the Distribution Code.
7 The EirGrid Consultation Paper for Ireland is available to download on the EirGrid website here.
8 Articles 60-65 of RfG
9 The System Operators intend to have all technical requirements and parameters finalised in advance of May 2018. However the date for compliance to the Network Codes is May 2019, at that time all requirements of the network codes including processes will be adopted into national legislation where appropriate.
recommendation of the European Commission or reasoned recommendation by ACER pursuant to Article 65 (2) of the RfG.

Article 61(1) states:

“Each regulatory authority shall specify, after consulting relevant system operators and power-generating facility owners and other stakeholders whom it deems affected by this Regulation, the criteria for granting derogations pursuant to Articles 62 and 63. It shall publish those criteria on its website and notify them to the Commission within nine months of the entry into force of this Regulation. The Commission may require a regulatory authority to amend the criteria if it considers that they are not in line with this Regulation. This possibility to review and amend the criteria for granting derogations shall not affect the derogations already granted which shall continue to apply until the scheduled expiry date as detailed in the decision granting the exemption.”

1.4 Purpose of this Paper

On 10 February 2017 the CER published a public consultation on the criteria for granting derogations pursuant to Articles 62 and 63 of the Commission regulation (EU) 2016/631 "Requirements for Generators" (RfG) (CER/17/013). The purpose of this paper is to outline the summary of the responses to the consultation, to present the CER’s position on the matters raised and the CER’s decision on this matter.

1.5 Responses Received to the Consultation

The CER received three responses to the consultation paper. Submissions were received from the following non-confidential respondents and have now been published on the CER’s website alongside this decision paper:

1. ESB Networks (ESBN)
2. Bord Gáis Energy (BG Energy)
3. EirGrid

1.6 Related documents


1.7 Structure of this paper

This consultation paper is structured as follows:

- Section 1, provides an introduction to the CER and provides background information to this decision paper.
- **Section 2**, provides an overview of the responses received.
- **Section 3**, outlines the CER’s decision and the next steps with regards to the criteria for granting derogations pursuant to Articles 62 and 63 of the Commission regulation (EU) 2016/631 RfG.
2 Responses Received to the Proposed Criteria

On 10 February 2017 the CER consulted on the derogation assessment criteria that the CER proposed to use to assess derogation requests under the RfG.

The CER received three respondents to the consultation. All respondents welcomed the proposed criteria for assessing a derogation request. None of the respondents opposed any of the proposed criteria, however two respondents sought further clarifications.

The main points made by respondents are summarised below. The full response documents are published on the CER’s website alongside this Decision Paper.

2.1 ESB Networks Response and CER’s Position

2.1.1 ESB Networks Response

In terms of criteria 6 “The Potential for Discriminating Treatment of Existing PGMs”, ESBN noted that it would be more appropriate to use the following:

“The applicant has confirmed with the relevant system operator that none of the other comparable PGM (in terms of size and technology) facility owners have already demonstrated that it is possible to comply with the relevant provision of the RfG.”

2.1.2 CER Position

The CER acknowledges the notification from ESBN on this proposed criterion, and considers that this clarification should be adopted.

2.2 BG Energy Response and CER’s Position

2.2.1 BG Energy

In relation to criteria 5 “The Impact on the interests of consumers/other Parties”, BG Energy proposed that decisions on derogations must take account of the exit signals being provided for in the I-SEM design, and that derogations granted should not undermine such exit signals. Ultimately the exit signals should help in achieving a system with connected installations that not only meet the RfG Regulation requirements but also complement a renewables dominated system. Ensuring that derogation decisions do not undermine this anticipated outcome will facilitate the development of a competitive, low carbon, flexible fleet of installations that ultimately provide energy to consumers at affordable prices.

With regards to criteria 1 “The Impact on the Electricity System of Non-compliance” and criteria 7 “The Effect on Cross-border Trade”, BG Energy believes that it could be difficult for applicants to independently verify the impacts on the electricity system and the cross-border effects without the provision of a suitable level of information from the relevant System Operator.
In respect to criteria 6 “The Potential for Discriminating Treatment of Existing PGMs”, BG Energy noted that it is unclear whether a case-by-case approach or a technology grouping approach to determine derogations will be taken.

Also, BG Energy sought further clarification on criteria 4 “The Costs Involved to Achieve Compliance” and criteria 8 “The Effect on Cross-border Trade”, in particular how the CER will consider when assessing whether or not the costs involved in achieving compliance is material and excessive.

BG Energy also sought further clarification on:

- The application of the RfG regulation to existing installations;
- Whether parties applying for a derogation must satisfy all of the derogation criteria;
- If the CER may rely on just one criterion to reject such an application or if justification for rejection under all criteria will be provided;
- How updates on the ongoing TSO/DSO assessments of implementation needs pursuant to the RfG Regulation in terms of Grid Code changes etc, will be conveyed to market participants; and
- Whether publication of derogations granted and reasons there for will be made available to the market for transparency reasons.

**2.2.2 CER Position**

The CER agrees with the BG Energy view with regard to the exit signals provided for in the I-SEM design. The CER agrees that derogations granted should not undermine such exit signals. Also, the CER notes that the exit signals should help in achieving a system with connected installations that complement a renewables dominated system. In assessing derogation applications the CER will have regard to the wider impact on the market.

The CER notes that any request for a derogation will be firstly submitted to the relevant System Operator. Then the relevant System Operator will assess and submit the request for a derogation and its assessment to the CER.

Also, the CER will use a case-by-case approach to determine derogations.

The CER notes that the RfG Article 4 describes in detail the RfG process on the extension of the applicability of this regulation to existing PGMs. If at some point, the CER considers that it is necessary, the CER will follow the process set out in the RfG.

In relation to further BG Energy queries, the CER will carry out a holistic assessment against all of the criteria and the CER’s decision will depend on the specific case. In other words, the application will be viewed in the round against the criteria, failure to meet an individual criterion will not necessarily mean that the application fails.

The CER notes that in the interests of transparency, granted derogations, including the reasons for such decisions will be published on the CER’s website.
2.3 EirGrid Response and CER’s Position

2.3.1 EirGrid Response

In terms of criteria 6 “The Potential for Discriminating Treatment of Existing PGMs”, EirGrid noted that there may be confidentiality concerns with respect to the relevant System Operator providing compliance information of one unit to a third party.

EirGrid stated that the proposed criteria should also apply to all Grid and Distribution Code derogation requests not just specifically Network Code derogation requests.

Also, EirGrid sought further specificity in respect of these criteria to fully understand how potential applicants for derogations will assess their projects against these criteria.

Moreover, EirGrid noted that under RfG Article 61 (3) the Regulatory Authority may decide that the power generating module for which a request for a derogation has been filed does not need to comply with the requirements from which the derogation has been sought whilst the assessment is being completed.

2.3.2 CER Position

The CER notes that a request for a derogation will be firstly submitted to the relevant System Operator. While due to confidentiality concerns, it may not be appropriate to share relevant information with the applicant, the relevant System Operator should consider the derogation application.

The CER welcomes EirGrid’s view regarding the assessment criteria to apply to derogations to the Grid and Distribution Codes. However, the CER notes that this issue is outside the scope of this paper.

The CER notes that derogation requests will be assessed by the CER on a case by case basis. Therefore further specificity on the criteria will be not appropriate. This is consistent with approach taken by other National Regulatory Authorities.

With reference to the RfG Article 61 (3), the CER notes that in practice generators will seek for a derogation when they cannot comply with the specific RfG requirement. Therefore the enforcement of that requirement would generally be appropriate after the assessment of the derogation application had been completed.
3 Decision

Power-generating facility owners, or prospective owners, in accordance with the RfG, may request a derogation to one or several requirements of the RfG for PGMs within their facilities. Moreover, RfG Article 62 (12) allows for third parties to apply for derogations on behalf of a power-generating facility owner, or a prospective owner for Type A generators. Additionally relevant System Operators can also file requests for a derogation from the RfG with the Regulatory Authority for classes of power generating modules connected or to be connected to their network.

Any request for a derogation should be submitted to the relevant System Operator. The CER will seek the view of the relevant System Operator(s) before reviewing an application for a derogation. The CER will provide further guidance on this process in due course.

The CER will carry out a holistic assessment against all of the criteria and the CER’s decision will depend on the specific case. In other words, the application will be viewed in the round against the criteria, failure to meet an individual criterion will not necessarily mean that the application fails.

Following consideration of the consultation responses the CER has decide to adopt the following criteria: (the wording is broadly the same as in the consultation apart from small number of textual changes)

1. **The Impact on the Electricity System of Non-compliance**
   The applicant has demonstrated that the derogation request will not have adverse effects on the electricity network system.

2. **The Reason for Non-compliance/Technical Limitation**
   The reason for non-compliance provided by the applicant has been justified.

3. **The Level of Non-compliance and Efforts Made to Improve/Achieve/Maximise Compliance**
   The applicant has demonstrated that the applicant has investigated reasonable solutions to non-compliance and has made reasonable efforts to maximise compliance.

4. **The Costs Involved to Achieve Compliance**
   The applicant has provided evidence of the materiality of the issue and demonstrated that the cost involved to achieve compliance is material and sufficiently high to justify a derogation.

5. **The Impact on the Interests of Consumers/Other Parties**
   The applicant has demonstrated that the derogation request will not have negative impact on the interest of consumers (e.g. competition, sustainable development, health and safety and other affected parties).
6. The Potential for Discriminating Treatment of Existing PGMs
   The applicant has confirmed with the relevant system operator that none of the other comparable PGM (in terms of size and technology) facility owners have already demonstrated that it is possible to comply with the relevant provision of the RfG.

7. The Effect on Cross-Border Trade
   The applicant has demonstrated that the requested derogation would have no adverse effect on cross-border trade.

8. The Cost-Benefit Analysis Pursuant to Requirements of the RfG Article 39
   The applicant has presented a robust, economic case that supports the application for a derogation.

9. The Required Duration of Derogation
   The applicant has demonstrated that the time period requested for the derogation is appropriate.

The CER considers that the derogation assessment criteria proposed will allow the CER to appropriately assess any future RfG derogation requests and ensure that the CER continues to protect the interest of consumers.