
Connection Network Codes – Response to the comments received during the public consultation of Implementation Guidance Document on Cost Benefit Analysis

Period of Consultation: 29/01/18 - 02/03/18

27 March 2017

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1. Introduction

Overview of connection codes

The European Connection Network Codes - [Requirements for Generators \(RfG\)](#), [Demand Connection Codes \(DCC\)](#) and [High Voltage Direct Current Connections \(HVDC\)](#) – have been developed in accordance with Regulation (EU) 714/2009 and are cornerstones to fulfil the third energy package.

The first connection network code, which entered into force on 17 May 2016, is the Commission Regulation (EU) 2016/631 of 14. April 2016 establishing a network code on requirements for grid connection of generators (RfG). The Commission Regulations on DCC and HVDC followed after that - (EU) 2016/1388 of 17. August 2016 establishing a network code on demand connection (DCC), entering into force on 18 August 2016, and the Commission Regulation (EU) 2016/1447 of 26. August 2016 establishing a network code on requirements for grid connection of high voltage direct current systems and direct current-connected power park modules (HVDC), entering into force on 8 September 2016 respectively.

In order to support the implementation of network codes at national level, and as required by the codes, ENTSO-E has produced non-binding guidance on implementation, which are also consulted by the stakeholders. This guidance is provided through so-called Implementation Guidance Documents (IGDs).

Legal background for IGDs

Commission Regulation (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for grid connection of generators (RfG), (Article 58), Commission Regulation (EU) 2016/1388 of 17. August 2016 establishing a network code on demand connection (DCC) (Article 56) and the Commission Regulation (EU) 2016/1447 of 26. August 2016 establishing a network code on requirements for grid connection of high voltage direct current systems and direct current-connected power park modules (HVDC) (Article 75) – Non-binding guidance on implementation - stipulate:

1. *No later than six months after the entry into force of this Regulation, the ENTSO for Electricity shall prepare and thereafter every two years provide non-binding written guidance to its members and other system operators concerning the elements of this Regulation requiring national decisions. The ENTSO for Electricity shall publish this guidance on its website.*
2. *ENTSO for Electricity shall consult stakeholders when providing non-binding guidance.*
3. *The non-binding guidance shall explain the technical issues, conditions and interdependencies which need to be considered when complying with the requirements of this Regulation at national level.*

Objectives of IGDs

The main objective of the implementation guidance is to support system operators in the process of determination on national level of non – exhaustive requirements during the national implementation. The objectives of the implementation guidance documents are:

- to facilitate a common understanding of technical issues specified in the connection network codes, in context of new technologies and new requirements (e.g. synthetic inertia)
- to deliver broader explanations and background information and to illustrate interactions between requirements,
- to recommend coordination/collaboration between network operators (TSO) where either explicitly required by the connection codes or reasonably exercised from a system engineering perspective,
- to give guidance to national specifications for non-exhaustive requirements, and

- to express the need of further harmonisation beyond what is requested by the CNCs when reasonable from a system engineering perspective.

List of IGDs

No	Titles of IGD	Status	Short description
1	Cost Benefit Analysis	Update	<p>This Guidance Document provides general methodological principles and examples in order to guide Member States in the application of the Connection Network Code (CNC) provisions related to the CBA process.</p> <p>This IGD aims to facilitate and to harmonize the elaboration of a detailed CBA methodology to be applied when necessary within the remit of the NC RfG, NC DCC and NC HVDC national implementation processes.</p> <p>It addresses fundamental methodological principles and the main steps of a cost-benefit analysis to be applied to assess potential monetary impacts of retrospective applications of or derogations from DCC, HVDC and RfG CNC requirements for grid connection.</p> <p>As this process applies to a variety of cases explained below each Member State remains free to provide more detailed and appropriate methodological provisions at national level, in order to take into account all the typology of cases to be encountered, and to account for the wide variation in users' equipment, configurations or scenarios that could be subject to any assessment.</p> <p>Note that not all impacts are easily monetized. In this case a different type of analysis (multi-criteria assessment - MCA) can be performed. It allows multiple indicators (including non-monetary ones) to be taken into account also considering relative priorities. If applying a MCA, special care should be taken to avoid double counting of costs or benefits.</p> <p>Some illustrative examples of particular CBA settings are also addressed noting the need for pragmatism and that any example will probably be specific to the application and should not be treated as a gold standard.</p> <p>Where text is quoted from RfG, please note that to keep the document to a reasonable length, where similar provisions exist in DCC and HVDC these are referenced but not quoted.</p>

Purpose of this document

This document demonstrates the outcomes of the consultation, which was conducted 29. January 2018 – 02. March 2018, and takes into account the views of the stakeholders resulting from this consultation. It provides a sound justification for including or not the views of the stakeholders when developing further the IGD.

The individual comments on each IGD – as received – and the corresponding [Expert Group](#) position are presented below in one-to-one manner.

2. Individual comments

Consultation Responses to IGD on CBA – and Comments from Expert Group 9 March 2018

Commenter	Type of comment	Comment	Remarks/Reply
EDF		<p>IGD is helpful to support national implementation – Yes</p> <p>IGD covers the topic appropriately - Yes</p>	
	Technical	<p>Welcomes the improvements in the latest draft</p> <p>Especially appreciates the content on general principles of a CBA and the need set out for involvement of all stakeholders in a CBA at an early stage</p>	No change required
	Technical	<p>Suggests that the IGD should include an additional recommendation that an ad-hoc CBA expert group is created at a national level to monitor and support the decision making process (for derogations and retrospective application) and notes that otherwise early involvement of stakeholders is not assured and the 4 week consultation period set out may not be long enough to gather evidence.</p>	<p>Appreciate the principle but this will depend largely on existing national processes. Hopefully there will be a limited need for derogations/retrospective application on completion of implementation.</p> <p>Could add an additional section to the IGD on page 20 (below “Data and Information to be Exchanged”) as follows:</p> <p>“Consideration should be given nationally to the creation an ad-hoc CBA expert group including all stakeholders which could assist the NRA in supporting applications for derogation /retrospective application and which could help to provide and validate data in a timely fashion.”</p> <p>This was agreed and will be added as a separate section.</p>

	Technical	<p>In the sections “Data and information to be exchanged” and “Data Provision and Confidentiality obligations”, stresses the importance of equal obligation on all parties involved and suggests replacing the sentence:</p> <p>“Grid users not providing the necessary data to the system operator or TSO will be in breach of their obligations under the CNCs” (4th paragraph from top of the page 20)</p> <p>with:</p> <p>“In the application of art 39.1 of RfG, art 49.1 of DCC and 66.1 of HVDC, Grid Users not providing the necessary data to TSO will be in breach of their obligations under the CNCs. By the same logic, the system operators not providing the necessary data to the Grid User in support of an individual derogation request will also be in breach of their obligations under the CNCs”.</p>	Accept – OK to replace.
Energiföretagen Sverige - Swedenergy		<p>IGD is helpful to support national implementation – Yes</p> <p>IGD covers the topic appropriately - No</p>	
	Technical	<p>The scope of the document is too broad to cover necessary technical issues. It covers everything and nothing at the same time. As a guiding document for the implementation of technical issues it might be helpful for the authority and/or TSO.</p>	No suggested changes
	General	<p>Stakeholder involvement - at least concerning the owners and operators of production units - should be required also in the qualitative CBA.</p>	<p>The qualitative assessment is deliberately quick and indicative to see whether there is justification to proceed.</p> <p>Some debate as understand the point. Could add something like ‘TSO may engage with stakeholders at this point’. But important thing is shouldn’t be required of stakeholders but they do need to be informed of the beginning of the process & should have an opportunity to analyse/input as appropriate since later in the process may have little time to gather evidence. Also an opportunity to influence at an earlier stage.</p> <p>Agreed to add a paragraph at the top of page 6 as follows:</p>

			‘As a minimum, informing stakeholders of the beginning of such a process such that they have an opportunity to assess and analyse the consequences is appropriate reflecting that there may be limited time to gather evidence at a later stage. Early engagement is also a useful opportunity for all parties to seek to influence the outcome and to seek a pragmatic and agreed view on the way forwards.’
		The quantitative CBA should verify the need for any change in requirements [referencing retrospective application I assume]. If local conditions are such that the changes are not needed, they should not be enforced.	This would be part of the NRA assessment. No change required.
VGB		IGD is helpful to support national implementation – Yes IGD covers the topic appropriately - No	
	Technical	In the section ‘Quantifying benefits’ on page 8, the terms “socio-economic benefits” and “benefits of the internal market” have to be specified in financial terms in order to obtain an European level playing field. The security of supply and the internal market are issues at the level of the EU and not at the level of each member state. So a European harmonisation is mandatory.	Think this refers to the paragraph at the top of page 11. It may be difficult to in every case quantify benefits financially and don’t agree with the assertion that security of supply is purely an EU level issue. National specificities are allowed and, given the differences in national systems, inevitable. No change required.
	Technical	On page 9 is mentioned: “Grid users not providing the necessary data to the system operator or TSO will be in breach of their obligations under the CNCs.” By applying the same logic, it should be also stipulated that “System Operators or TSOs not providing the necessary data to Grid Users will be in breach of their obligations under the network codes.”	Think this refers to page 20. Similar to EDF comment above and would be addressed by their amended paragraph. Addressed by amendment in response to EDF comment.
	Technical	The output of the Expert Group according to the ENTSOE document dated 28/11/2017 has to be taken into account for the final version of the IGD. During the national implementation, the creation of an ad-hoc CBA expert group is recommended, including all stakeholders such as	Similar to EDF comment above and would be addressed by the suggested additional paragraph. Addressed by amendment in response to EDF comment.

		<p>generating companies. The expert group has to be initiated by the NRA and its role is:</p> <ul style="list-style-type: none">• To monitor and support the first CBA for a derogation, with regard to the validation of the input data and assumptions, as well as methods for potential impact assessment.• To support the NRA decision on technical aspects based on the feed-back from generating companies.	
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