
Harmonisation

ENTSO-E guidance document for national
implementation for network codes on grid connection

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DESCRIPTION

Code(s) and Article(s) NCs RfG, DCC and HVDC All articles with non-exhaustive requirements for which a national choice is requested (see tables in IGD Parameters on non-exhaustive requirements) and also articles with different exhaustive requirements depending on the synchronous area or the country in which the affected Grid User, TSO or DSO is located.

Objective This IGD provides broad guidance to Network Operators in context of national implementation of the 3 CNCs on how in principle to deal with the diverging views arising from

- On the one hand defined by the scope of the Connection Network Codes (CNCs) as per Regulation (EU) 714/2009 limiting content to aspects which have a cross-border impact.
- On the other hand desire to go further driven by many stakeholders, notably manufacturers particularly if dealing with the volume end of the markets such as low rating, low voltage connections, to go further and define cross Europe standardized solutions.

NC Frame The national implementation needs to be tailored to manage and make best use of local system characteristics (network, load, generation portfolio and technology). Implementation of CNCs should deliver enough level of harmonization in order to facilitate market integration in Europe while ensuring secure system operation taking into account the local systems characteristics. The CNCs therefore provide an appropriate level of harmonization of requirements within the above context.

Network Codes do not exclude collaboration between relevant parties. For example, collaboration on frequency-related requirements is reasonably recommended at synchronous area level, while specification of reactive power capabilities may in some contexts require collaboration at regional level.

Further harmonisation beyond what is justified to facilitate market integration can be pursued as follows:

- By System Operators voluntarily collaborating where there are no national / local system reasons to select different approaches. Providing CNC implementation guidance can be helpful in this context.
- By System Operators identifying differences between existing standards and the requirements in the 3 CNCs and supporting the standards organisations to efficiently remove any inconsistencies.
- By stakeholders working with the international standards organisations to further optimise the practical ways of meeting the requirements of the CNCs and their national implementation.

This is particularly pressing for the high volume, low rating equipment (such as Type A Power Generating Modules (PGMs) in NC RfG). For high volume Type A devices the current practice is to demonstrate compliance against standards rather than against CNCs. Therefore success of implementation of CNCs in this area is particularly dependent upon standards being up to date and reflecting the CNC requirements and their national implementation. ENTSO-E is supporting this effort and System Operators are encouraged to do likewise.

Link to ACER Framework Guidelines	ACER Framework Guidelines do not state specific provisions regarding the need or precedence of pursuing a full harmonization of requirements.
Further information (examples and references)	<p>ENTSOE RfG and DCC Justification Outlines: http://www.acer.europa.eu/Media/News/Documents/121221-DCC%20-%20Justification%20Outlines.pdf http://www.acer.europa.eu/Media/News/Documents/120626%20-%20NC%20RfG%20-%20Justification%20outlines.pdf</p> <p>Further IGDs providing information on decision making at national level including coordination and collaboration with others:</p> <ul style="list-style-type: none"> • IGD Making non-mandatory requirements at European level mandatory in a country • IGD Parameters of non-exhaustive requirements

INTERDEPENDENCIES

Within CNCs	This file covers the current 3 CNCs.
In other NCs	There is a strong relation between the harmonization of technical capabilities in the CNCs and harmonization within System Operation Guidelines. E.g. the set of specific technical capabilities in the field of very fast active power Demand Response (DR) controls may allow sharing in future of these services with few differences in their way of application across Europe allowing market mechanisms with common harmonized principles.

COLLABORATION

TSO – MS- NRA	Encourage development of appropriate standards.
TSO – generator owner – DSO- CDSO	General support and collaboration to progress international standards reflecting the requirements of the CNCs.