### INTRODUCTION

This document has been put together by National Grid to assist industry parties in understanding the European Network Codes, the process for developing and implementing them and the potential high-level impacts on industry parties.

The document has been prepared by National Grid and is provided solely for information purposes. Nothing in this document constitutes legal advice.

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### EUROPEAN THIRD ENERGY PACKAGE

The European Third Energy Package was adopted in July 2009, and has been law since March 2011. The Third Energy Package refers to a suite of legislation for both Electricity and Gas and is a key step forward in developing a more harmonised European energy market. The Third Energy Package has three key outputs:

- Enhancing sustainability and helping the European Union (EU) meet its decarbonisation obligations;
- Ensuring security of supply in light of a changing generation mix; and
- Creating a single European Market for Electricity.

For Electricity, the Third Energy Package comprises of two regulations and a directive:

- Conditions for access to the network for cross-border exchanges in electricity (Regulation (EU) 714/2009);
- Regulation establishing an Agency for the Cooperation of Energy Regulators (Regulation 713/2009);

As is common to all EU law, regulations apply directly to the member states, whereas directives require transcription into national law. In particular, Directive 2009/72/EC was transcribed into GB Law via the *Electricity and Gas (Internal Markets) Regulations 2011*.

### OVERVIEW OF THE EUROPEAN NETWORK CODES

There are presently ten European Network Codes at various stages of the development process. These European Network Codes are deemed the priority European Network Codes by the European Commission. The ten European Network Codes cover three areas:

- **Grid Connection Codes:** provide functional requirements for generators, demand and HVDC equipment wishing to connect to Transmission and Distribution Networks.
- **Markets Codes:** central to delivering the single European Energy Market, deal with the allocation of cross-border capacity and energy in the forwards, day-ahead and intraday markets. The Balancing European Network Code delivers a framework to facilitate the cross-border exchange of balancing and reserve products between system operators.
- **System Operation Codes:** designed to ensure a secure and harmonised approach to system operation across systems. Also to establish a framework for the sharing and exchange of reserve products between member states.

In addition there is a European Regulation on submission and publication of data in electricity markets (Regulation (EU) 543/2013) known as the *Transparency Regulation*.

It is expected that further European Network Codes will need to be developed in the future, however no firm dates have been identified in either the ACER or ENTSO-E work schedules. Future European Network Codes are expected on Connection Procedures, and Tariffs.
EUROPEAN NETWORK CODE DEVELOPMENT PROCESS

The development process for the European Network Codes is outlined in Regulation 714/2009 and details a staged process involving:

- European Commission
- ACER (Agency for the Cooperation of Energy Regulators)
- ENTSO-E (European Network of Transmission System Operators for Electricity)

The development process is outlined in Figure 1 below.

The key stages in the process are as follows:

- **Development of Framework Guidelines (FWGL).** ACER is invited by the European Commission to prepare a set of high-level principles on particular topics. This is a 6 month process.

- **Development of the European Network Code.** ENTSO-E is invited to prepare a European Network Code on a particular topic based on the Framework Guidelines. This is a 12 month process and includes a 2 month public consultation period.

- **Review of the European Network Code.** ACER will review the European Network Code for compliance with the framework guidelines. They may ask ENTSO-E to make some revisions. ACER will issue an opinion and (qualified) recommendation to the European Commission. The initial review will take 3 months, however, the process for ENTSO-E to make revisions is not time constrained.

- **Comitology.** Comitology, or ‘committee procedure’, is the formal process by which European Law is agreed. It involves member states, the Council of the European Union and European Parliament. The Comitology process is explored in further detail later.

- **Publication.** The European Network Codes are expected to be published in the Official Journal of the European Union (OJEU). The European Network Codes are expected to take the form of a Regulation.

- **National Application.** Individual member states will need to align their domestic requirements with the requirements of the European Network Codes, based on the scope and timelines outlined in them. This will ensure that domestic requirements are consistent with the requirements of the European Network Codes.

Comitology

The European Union uses a standard process for determining European Law. It is part of the co-decision process whereby the three elements of the European legislature (European Commission, Council of the European Union and European Parliament) must agree.

Under the present arrangements for Comitology, the ‘pen’ rests with the European Commission. Note that under the Treaty of Lisbon, the Comitology process is expected to change, however, at present the European Network Codes are proceeding under the older Comitology system.

The Comitology process for the European Network Codes is expected to have three key phases:

- **Preparation for Comitology.** The European Network Code is received from ACER/ENTSO-E and it is prepared for Comitology. This includes: informal discussions between member states, legal drafting, consultations with other departments in the Commission and translations into the official languages of the European Union.

- **Cross-Border Committee.** This is the key decision making phase of Comitology. During this phase the member states agree and ultimately vote upon the text of each European Network Code. Voting takes place in the ‘Committee on the implementation of legislation on conditions of access to the network for border exchanges in electricity’, on a ‘Qualified Majority’ Basis. At this Committee, the UK representative is the government Department for Energy and Climate Change (DECC), and they lobby on behalf of UK. Once agreed by this Cross-Border Committee the text of the European Network Code is essentially finalised.

- **Council of the European Union and European Parliament Approval.** The Council of the European Union and European Parliament both need to approve the European Network Code. Based on previous experience, this is a ratification process and it is not expected that any changes will be made to the European Network Code during this phase.

Florence Forum May 2014: Network Code or Guidelines. Following concerns from the European Commission’s Legal service with regards to CACM and the number of decisions delegated to TSOs and NRAs after entry in to force; it was determined that CACM would proceed as a guideline as opposed to a Network Code. Both network codes and guidelines have the same legal status and will become directly applicable EU regulations, the difference being the development and modification routes (as defined in Regulation (EU) 714/2009)

**Figure 1:**

For a view of where each European Network Code currently is within the Development Process Timeline, please visit the JESG section of National Grid’s website to access the ‘European Code Development Organogram’. This can be found in the following link: http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=35341

**EUROPEAN NETWORK CODE DEVELOPMENT PROCESS TIMELINE**

- **Commission starts development process**
- **ACER develops FWGL**
- **Commission invites ENTSO to develop Network Code**
- **ENTSO develops Network Code**
- **ACER reviews Network Code**
- **Comitology led by Commission**
- **Network Code becomes Law**

GB to demonstrate compliance

6 months → To fit work programme

1 year

3 months

1 year?
The following tables illustrate further information about the ten priority European Network Codes. In particular it details the scope, the timescales for application, the likely affected GB parties and the GB Code which is expected to contain the majority of the changes relating to each European Network Code.

Please note: All timescales are based on current expectations and the impact is based on the current versions of the European Network Codes (as of September 2014). Timescales, scope and impacted parties may all change. No liability is accepted for the ongoing validity of any information included in this table.

### GRID CONNECTION CODES

<table>
<thead>
<tr>
<th>Requirements for Generators (RFG)</th>
<th>Demand Connection Code (DCC)</th>
<th>HVDC European Network Code</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What it covers</strong></td>
<td>Sets functional requirements which new generators connecting to the network (at both distribution and transmission) will need to meet, as well as responsibilities on Transmission System Operators (TSOs) and Distribution System Operators (DSOs).</td>
<td>Sets functional requirements for new demand users and Distribution Network connections to the Transmission System, basic Demand Side Response capabilities, as well as responsibilities on TSOs and DSOs.</td>
</tr>
<tr>
<td><strong>Timescales for application</strong></td>
<td>Code applies 36 months after entry into force, so based on current expectations compliance needs to be achieved by c. early 2018.</td>
<td>Code applies 36 months after entry into force, so based on current expectations compliance needs to be achieved by c. early 2018.</td>
</tr>
<tr>
<td><strong>Who may impacted by the Code</strong></td>
<td>All new generators from 800W and above connected at Transmission and Distribution voltages. A generator is considered new if it connects after 2 years after entry in to force, unless it has let contracts for major plant before that 2 year deadline (estimated to be late 2016 / early 2017) By exception, the European Network Code can be applied retrospectively to existing generators, subject to successful cost benefit analysis and Regulatory approval.</td>
<td>All new ‘significant demand’ at Transmission and Distribution voltages. Demand is considered new if it connects after 2 years after entry in to force, unless it let contract for major plant before that 2 year deadline. Significant demand is that providing a Demand Side Response Service, or connected to the Transmission Network. The European Network Code can be applied retrospectively to existing equipment, subject to successful cost benefit analysis and Regulatory approval.</td>
</tr>
<tr>
<td><strong>Primary GB Framework Effect</strong></td>
<td>The Grid Code, Distribution Code and associated Engineering Recommendations. Note that the banding of generators in RFG is different to GB Codes and does not include specificities for different regions of GB.</td>
<td>Grid Code and Distribution Code. Potentially further vehicles to deal with Demand Side Response requirements, particularly at domestic level.</td>
</tr>
</tbody>
</table>

### BALANCING AND RESERVES NETWORK CODES

<table>
<thead>
<tr>
<th>Electricity Balancing</th>
<th>Load Frequency Control and Reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What it covers</strong></td>
<td>The European Network Code on Electricity Balancing will ensure that the correct framework will be put in place to deliver the mechanisms for balancing resources to be effectively shared between countries. This can enhance security of supply and reduce cost.</td>
</tr>
<tr>
<td><strong>Timescales for application</strong></td>
<td>The European Network Code will have a phased implementation from 2015 until c:2021.</td>
</tr>
<tr>
<td><strong>Who may impacted by the Code</strong></td>
<td>TSOs, DSOs and providers of balancing services.</td>
</tr>
<tr>
<td><strong>Primary GB Framework Effect</strong></td>
<td>Balancing and Settlement Code (BSC) and other documents.</td>
</tr>
</tbody>
</table>
## MARKET EUROPEAN NETWORK CODES/GUIDELINES

<table>
<thead>
<tr>
<th>What it covers</th>
<th>Forward Capacity Allocation</th>
<th>Capacity Allocation and Congestion Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sets out rules for trading cross-border capacity in the Forwards Market (Sister Code to CACM).</td>
<td>Creates the rules for operating pan-European Day Ahead and Intraday markets, explains how capacity is calculated and explains how bidding zones will be defined. Includes the Governance Guidelines which provide a robust, reliable and non-discriminatory European Union governance framework for the operation of market coupling across Europe.</td>
<td></td>
</tr>
</tbody>
</table>

| Timescales for application | Phased implementation expected from mid 2015. Expected to be in place by mid 2018. | Phased implementation from c. early/mid 2015, expected to be in place early/mid 2017. |

| Who may impacted by the Code | Anyone trading Interconnector capacity in the forwards markets. Interconnectors. TSOs. | Anyone trading or wishing to trade Interconnector capacity in the day ahead. Interconnectors. Generators and demand to provide information on which capacity allocation decisions are made on a regional basis. |

| Primary GB Framework Effect | Primary vehicle – TBC. | Directly applicable, so GB Code changes may not be required except in some areas to obtain data from Generators / Demand. |
Two key pan-European bodies were formed in the Third Package to deliver the European Network Codes and for other activities

**European Network of Transmission System Operators for Electricity (ENTSO-E)**

ENTSO-E was created via Regulation (EU) 714/2009, and is granted a specific role in the development of European Network Codes and other topics such as creating the Ten Year Network Development Plan and the Summer and Winter Adequacy Reports.

ENTSO-E is formed of 41 Transmission System Operators (TSOs) from 34 countries. For the United Kingdom the members of ENTSO-E are National Grid Electricity Transmission (NGET), Scottish Hydro Electric Transmission plc, Scottish Power Transmission plc and System Operator for Northern Ireland Ltd.

ENTSO-E is governed by an Assembly representing the 41 TSOs and a Board consisting of 12 elected members. Nick Winser, National Grid Executive Director, is currently the President of the ENTSO-E Assembly.

Voting at ENTSO-E is undertaken on a Qualified Majority Basis, with voting power of each member company adjusted to account for countries with multiple TSOs and for TSOs outside of the European Union. ENTSO-E member represent 34 countries including 7 outside the EU – Malta is the only EU member state not represented at ENTSO-E.

ENTSO-E is based in Brussels, near to the European Commission building.

**Agency for the Cooperation of Energy Regulators (ACER)**

ACER was created via Regulation (EU) 713/2009 and is an independent European structure which fosters cooperation among European energy regulators. ACER ensures that market integration and harmonisation of regulatory frameworks in line with the EU’s energy policy objectives.

ACER is composed of members of energy regulators from the 28 European Union member states. Ofgem is the UK appointed representative within ACER. The Northern Ireland Regulator UREGNI is represented at ACER by Ofgem.

ACER is based in Ljubljana, Slovenia.

There are various existing bodies of the European Union that have a role in the development and implementation of the European Network Codes.

**European Commission**

The European Commission (EC) is the executive body of the European Union responsible for proposing legislation, implementing decisions, upholding the Union’s treaties and the day-to-day running of the EU.

The EC operates as a cabinet government, with 28 members known as Commissioners, governing particular aspects of the EC’s work. Each member state appoints one European Commissioner.

Highlights of the 2014-2019 Commission include:

1. President: Jean Claude Junker (Luxembourg).
2. Commissioner for Climate Action and Energy: Miguel Arias Cañete (Spain).
4. The European Commissioner appointed by the UK is Jonathan Hill, Baron Hill of Oareford whose remit covers Financial Services and Capital Markets Union.

These Commissioners are subject to approval by the European Parliament in October 2014, and are expected to serve a five-year term from November 2014.

**Council of the European Union**

The Council of the European Union, sometimes called just the Council and historically the Council of the European Union of Ministers, is an institution of the European Union that forms the ‘upper house’ of the European legislative structure.

The Council of the European Union is composed of several configurations of the twenty-eight national ministers, and the exact configuration depends on what is being discussed. For Energy matters, the Secretary of State for Energy and Climate Change (Edward Davey MP) is the appropriate minister.

Decisions within Council of the European Union are made based on the basis of Qualified Majority Voting.

The presidency of the Council of the European Union rotates around member states on a six-monthly basis. The H2/2014 Presidency is held by Italy, who will be succeeded by Latvia and then Luxembourg. The UK will next undertake the presidency in July-December 2017.

The Council of the European Union is not to be confused with the European Council of the European Union, which is the group of heads of government of the EU member states.

**European Parliament**

The European Parliament is the directly elected institution of the European Union, acting as the lower house of the EU’s legislature.

There are currently 751 Members of the European Parliament drawn from the 28 member-states. The UK has 73 MEPs, elected using proportional representation from 12 regional constituencies. At the May 2014 elections the GB seats were held by 24 UKIP, 20 Labour, 19 Conservatives, 3 Green, SNP 2, Liberal Democrat 1 and Plaid Cymru 1. Within the European Parliament, UK MEPs sit in larger pan-European political groupings.

The next elections to the European Parliament are scheduled for May 2019.
European Network Codes are expected to be contained in Regulations which – unlike Directives – are directly applicable and legally binding, and therefore it is generally unnecessary to make changes to domestic law to demonstrate compliance. However, there are a number of reasons why minimal changes may be required to the GB framework, and in particular GB Codes to demonstrate compliance:

1. Where there are conflicts between European requirements and existing GB requirements;
2. Where further clarity is required through supplementary provisions to make the European Network Codes workable;
3. Requirements need to be appropriately enforceable at the domestic level.

Aligning the GB Framework
Aspects of the GB Framework that may need to be changed to ensure they align with the European Network Codes are:

1. GB Codes.
2. Interconnector Access rules
3. Licences, e.g. Transmission, Generators, Distribution, Supplier licences
4. Secondary Legislation, e.g. UK Regulations
5. Primary Legislation, e.g. Acts of (UK) Parliament

The particular case of amending GB Codes will be considered in further detail.

GB Codes
The GB Codes establish the regulatory and contractual framework between industry participants in the GB Electricity Industry, and are its established mechanism of governance in the GB electricity industry. By GB Codes, in we mean:

- Grid Code, Connection and Use of System Code (CUSC), Security and Quality of Supply Standard (SQSS) and System Operator Transmission Owner Code (STC), which are administered by National Grid;
- Balancing and Settlement Code (BSC) administered by Elexon;
- Distribution Code (D-Code) administered by the Electricity Networks Association; and
- Distribution Connection and Use of System Agreement (DCUSA) administered by Electralink.

Are GB Codes the right place for ENC requirements?
In determining when GB Code modifications are the right mechanism to facilitate compliance with European Network Codes, there are two key aspects to be considered. Firstly, whether the GB Code is of the right nature to deal with and house the technical or commercial requirements of the European Network Codes and, secondly, whether the GB Code is addressed to the relevant industry parties who are required to comply with such requirements.

If GB Codes are not the right place for aligning the GB Framework to the requirements of the European Network Codes, then other options will need to be considered by DECC, Ofgem and the Industry.

GB Code Modification Process
In order to implement the modifications to the GB Codes arising from ENC requirements, it is expected that the existing code modification processes under the standard governance framework for each of the GB Codes will be used. Notwithstanding this, the ability is granted under the Third Procedure for Ofgem to dictate a timescale for code modifications and to raise code modifications for some of the GB Codes.

Coordination across GB Codes Panels
Across the GB Codes, coordination of application of the ENC requirements will be achieved using the European Code Coordination Application Forum (ECCAF). ECCAF is a standing group of the seven GB Code Panels which has a specific remit to coordinate aspects of application to ensure consistent and complete treatment of the suite of ENC requirements to the package of GB Codes.

FUTURE CHANGES TO THE ENC

Regulation (EU) 714/2009 provides a role for ACER in the procedure to propose European Network Code amendments. In order to change the European Network Codes once they are in force, it is expected changes will be needed via the Comitology process involving the European Commission, European Parliament and Council of the European Union.

ACER is currently (October 2013) considering a mechanism to propose updates to the European Network Codes based on Industry requirements, and foresees two procedures for evaluating European Network Code amendments.

- **Procedure 1.** A general, five-yearly, periodic review of the European Network Codes. ACER evaluates the various stakeholders’ proposals received ahead of the review and verifies to what extent they can improve the European Network Code. A public consultation is held prior to the Agency submitting its proposal to the European Commission.

- **Procedure 2.** The second review procedure is devoted to ad-hoc Network Code amendments, which are either urgent or require priority. Essentially the same procedure is followed as in the periodic review, including the public consultation, albeit with shorter deadlines. This procedure is meant to be flexible and could be launched at any time to allow the Agency to react to changing market circumstances or to other situations which require an expeditied follow-up.

There is expected to be further guidance on this matter as the European Network Codes develop.
USEFUL WEB LINKS

Third Package Legislation

Affected GB Legislation

Existing GB Codes
- BSC: [http://www.elexon.co.uk/bsc-related-documents/](http://www.elexon.co.uk/bsc-related-documents/)
- DCUSA: [http://www.dcusaa.co.uk/SitePages/Home.aspx](http://www.dcusaa.co.uk/SitePages/Home.aspx)

ENTSO-E
- Main website: [https://www.entsoe.eu/](https://www.entsoe.eu/)
- European Network Codes: [http://networkcodes.entsoe.eu/](http://networkcodes.entsoe.eu/)
- Consultations: [https://www.entsoe.eu/consultations/](https://www.entsoe.eu/consultations/)

ACER

European Commission, Directorate-General for Energy (DG Energy)
- Main website: [http://ec.europa.eu/energy/index_en.htm](http://ec.europa.eu/energy/index_en.htm)

GB Stakeholder forums
Sources of further information and opportunities to get involved in the development of European Network Codes are available on a GB basis and a pan-European basis.

**GB Forums**

**Joint European Standing Group (JESG):** An open forum for information sharing and discussion of the development and implementation of the European Network Codes. Meetings are typically held monthly in London. In addition, code-specific technical workshops are held on European Network Codes during key phases of their development.

For further information on JESG please contact Tom Selby, Technical Secretary, National Grid, via: Europeancodes.electricity@nationalgrid.com

**DECC-Ofgem Stakeholder Workshops:** An open meeting to facilitate DECC and Ofgem gathering views on the European Network Codes from GB Stakeholders, to inform the discussions and decisions taken during the Comitology process. These meetings will also consider the ‘bigger picture’ of changes relating to European Network Codes, particularly for issues that do not naturally fall in to one of the existing GB Codes. It is anticipated that these workshops will now take place on the same day as the JESG.

For further information on how to get involved, please contact either Tom Selby Europeancodes.electricity@nationalgrid.com or Jack Robinson Jack.Robinson@ofgem.gov.uk

**European Code Coordination Application Forum (ECCAF).** As part of the implementation process for the European Network Codes to the GB Codes, ECCAF has been formed as a standing group of the GB Code Panels. The purpose of ECCAF is to provide a forum for discussion of matters relating to the coordination of efficient application of ENC to the GB Codes and to provide advice to the Code Panels on these matters.

The membership of ECCAF is drawn from the GB Code Panels and other representatives, but observers are welcome to attend.

A subgroup of ECCAF, the Code Mapping Working Group will meet to consider the initial mapping of the ENC requirements to the GB Codes.

For further information on ECCAF please contact Sara-Lee Kenney, Technical Secretary, National Grid, via: Europeancodes.electricity@nationalgrid.com

**European Forums**

**ENTSO-E** will hold public consultations during their drafting phase of the European Network Codes, and also hold public workshops and information sessions to inform stakeholders. These sessions are typically held in Brussels, and some have webinar facilities.

For details of upcoming consultations and information sessions please see the ENTSO-E website. https://www.entsoe.eu/

**ACER** also holds consultations and information sessions on the European Network Codes during their review phase. Similarly these are often held by correspondence, webinar or in Ljubljana.

For details of upcoming consultations and information sessions please see the ACER website. http://www.acer.europa.eu/portal/page/portal/ACER_HOME/Activities

**European Associations.** Many European Associations are active in the development process for European Network Codes and are working with ACER and ENTSO-E. Active European Associations include; Eurelectric, IFIEC, EWEA, CEFIC, Europex and EFET.

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**National Grid Email Service**

National Grid also offers a weekly email update service on issues relating to the development of European Network Codes, and the work of the GB Stakeholder Forums. To join this distribution list please contact Tom Selby, National Grid on Europeancodes.electricity@nationalgrid.com

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Last updated: November 2014
Changes made to:
- Page 2 ‘European Network Code Development Process Timeline’ to include the link to the ‘European Code Development Organogram’.

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