

Joint European Stakeholder Group



Tuesday 28 April 2015: Meeting 2

1. Introductions and Apologies

Barbara Vest

JESG Independent Chair

2. Review of Action Log

Sara-Lee Kenney
JESG Technical Secretary

JESG Standing Actions

ID	Topic	Lead Party	Source
S1	Continue to review the membership of the JESG and engage additional industry parties where appropriate.	JESG Chair	JESG S3
S2	Prepare a commentary / comparison document between the Network Code and the existing GB arrangements at appropriate stages in the Code development for each Network Code.	NGET/Ofgem/DECC	JESG S1
S3	Share any intelligence about how other member states are approaching demonstrating compliance through information gained from other government departments, regulators or parent companies	DECC / Ofgem / Industry parties with European parent companies	ECCAF 3/2
S4	Stakeholders are requested to provide specific examples of inconsistent or problematic definitions in the Network Codes to Ofgem (natasha.z.smith@ofgem.gov.uk) and DECC (elena.mylona@decc.gsi.gov.uk).	All Stakeholders	JESG S6

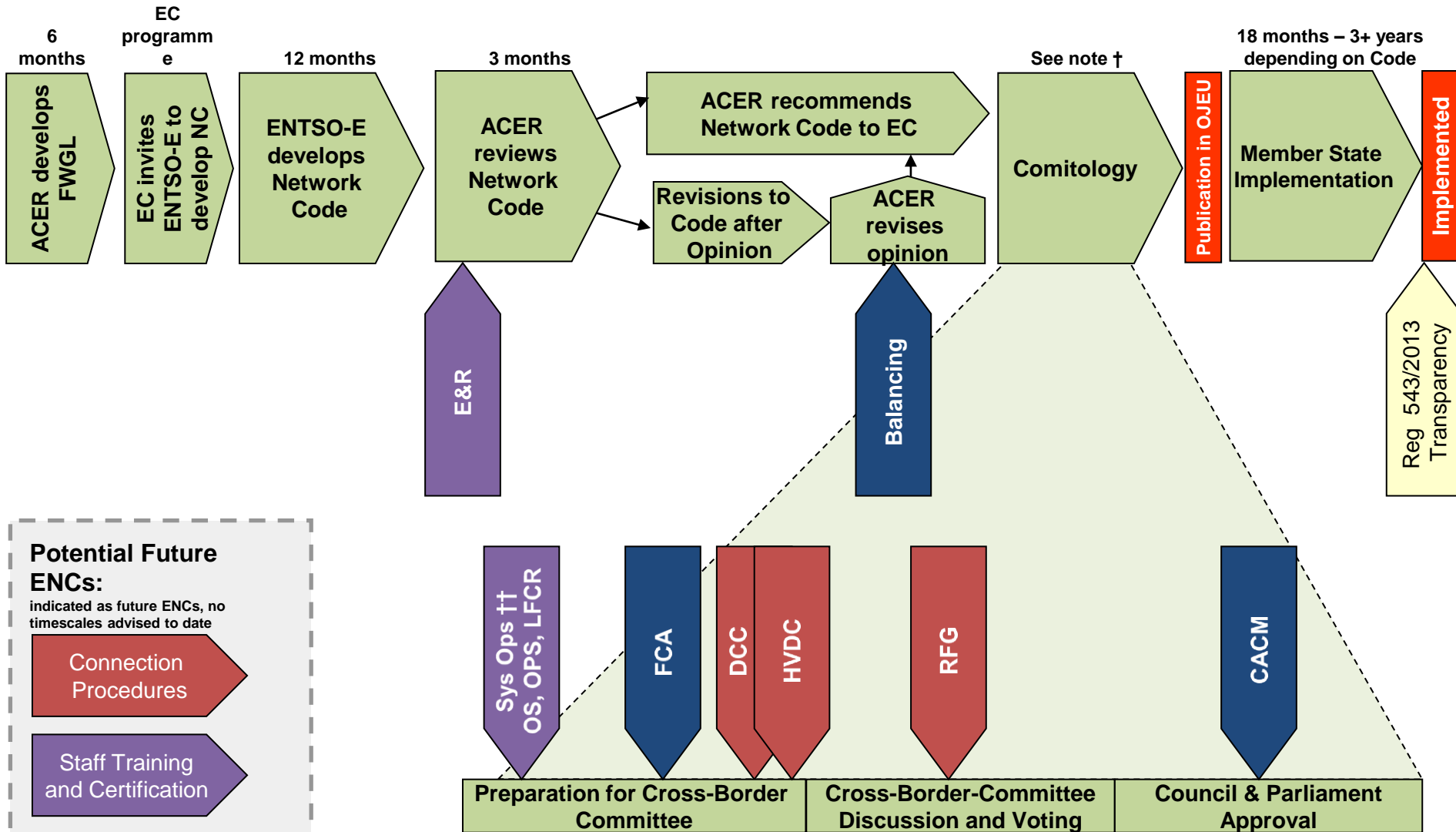
JESG Open Actions

ID	Topic	Lead Party	Update
4	DECC to update JESG on how GB TSO voting will work under CACM and what information will be published with regards to voting.	DECC	To be covered at the June/July JESG
5	New JESG Terms of Reference additions to be updated and published to JESG website and Weekly Update.	Ofgem/ DECC, JESG Technical Secretary	Complete
6	Transparency 'Lessons Learnt' to be presented to JESG when available.	NGET	To be covered at the May JESG
7	JESG Meeting Slides from April onwards to include future meetings/workshops (ENTSO-E/ACER etc)	JESG Technical Secretary	Complete

3. Summary Status of European Network Codes

Sara-Lee Kenney
JESG Technical Secretary

European Electricity Codes Development Status: 24 April 2015



† Timescales for the stages of Comitology are not specified and under the Commission's control
 †† Current indications from the Commission is that OS, OPS and LFCR will be merged in to one single guideline
 All queries to: europeancodes.electricity@nationalgrid.com

4. RfG/Distribution Code Mapping

Sarah Carter & Mike Kay
Ricardo-AEA Electricity North West

The Voice of the Networks



Energy Networks Association

JESG

Mike Kay Electricity North West
Sarah Carter Ricardo-AEA

April 2015

As presented to JESG on 28 April with minor editorial revisions

Proposals for the incorporation of the EU Network Code RfG into the GB Distribution Documents

- Existing document overview
- Drafting considerations and challenges
- Options and preferred option
- Anticipated documents

Documents which are likely to require changes:

- The Grid Code
- The Distribution Code
- Engineering Recommendation G59/3
- Engineering Recommendation G83/2
- Other Engineering Recommendations and Technical Specifications (referenced by Distribution Code) may be affected

As well as:

- The Connection and Use of System Code
- The System Operator Transmission Owner Code
- The Security and Quality of Supply Standards

Existing Document Overview (2)

- The main relevant sections of the Distribution Code are:
 - The Distribution Planning and Connection Code, mainly DPC4 & 7
 - The Distribution Operating Code (DOC)
 - The Distribution Data Registration Code (DDRC)
- EREC G83/2 contains the technical requirements for connection of Small Scale Embedded Generators (SSEGs) for operation in parallel with a public low-voltage Distribution System.
- EREC G59/3 provides guidance on the technical requirements for the connection of Generating Plant to the Distribution Systems of licensed DNOs for plant for which G83 is not applicable.
- Any Medium or Large Power Stations presently connecting to the Distribution Network are referred to a number of Grid Code requirements from the Distribution Code.

- Clarity to all Users (generators and demand), NG and DNOs
- Reasonable initial cost to implement required changes
- Ease for future updates
 - Use the GB governance processes for Code panels changing individual codes
 - New process for EU updates
 - Reasonable admin cost
- Management of compliance
 - Clarity as to which codes are applicable to which users (retrospective)
 - Grandfathering of clauses (ie for existing installations)
 - Demonstration of compliance to EU

- Many RfG requirements not currently in GB docs
- Some RfG Clauses have specific requirements to be set by NG
- GB codes and RfG may have conflicting requirements. Clauses in GB documents may have to be removed
- Different Definitions
- Clauses in GB documents need modifying to include the more detailed RfG provision
- Clauses in the GB documents may need prefacing with the necessity for agreement between the network operator and the generator
- GB Distribution documents refer to GB Grid Code
- RfG does not consider all GB Distribution requirements (eg those required by ESQCR)

- Pre and Post RfG requirements
- The DCode and G59 overlap in a number of technical areas.
- G83 is standalone and referenced from the DCode.
- RfG only applies to generators > 800W. The GB documents need to cover all generators.
- The EU Demand Connection Code and some of the System Operation Codes will also be applicable to GB distribution documentation.

Options for Integration of EU codes with GB distribution documents

A

Add on:

Based on GB Documents
New Planning, Connection, Operation
Clauses added to D Code, G83 and G59

- + No change to existing document structures
- Double clauses (pre and post), larger documents

B

Create New Planning, Connection, Operation:

EU generator type based and User
Categories

- + Easy to demonstrate EU compliance
- Not so user accessible, especially for small G83 generators

C

Create number of Planning & Connection docs; Operation within D Code & G Code:

Classification based on GB users

- + Set of user accessible documents, for small generators
- + One document for Type D, distribution and grid connected

D

Add On:

Based on EU Documents
Additional sections from GB documents
by generator type

- + Easy to demonstrate EU compliance
- Confusing re cumulative clauses and different additional GB requirements

Preferred Option C

C

Create number of Planning & Connection docs; Operation within D Code & G Code:
Classification based on GB users

- + Two new documents along lines of G83 and G59
- + Applicability of each document in line with recent experience from distribution generation connection guides
- + Set of user accessible documents
- + Connection guides would accompany documents
- + One document for Type D, distribution and grid connected generators
- + Existing generators refer to existing documents
- + DCode operational requirements for all

Preferred Option C

Set of documents based on the generator size, number of units and location(s), whilst also taking into account the connection application requirements:

G83 equivalent to be named *Engineering Recommendation G98*:

G98-part 1. Connection of domestic-scale, type tested generation to the low voltage distribution network.

Single premises where the total connected generation $\leq 16\text{A/ph}$ (Typically by Householders)

G98- part 2. Connection of domestic-scale type tested generation to the low voltage distribution network at multiple premises in close proximity.

Where the total connected generation $\leq 16\text{A/ph}$

And

Connection of type tested generation to the distribution network where the generating unit $\leq 50\text{ kW}$ 3 phase (or 17 kW 1 phase)

(Typically by Developers, Landlords or Community Groups)

Preferred Option C cont.

G59 equivalent to be named *Engineering Recommendation G99:*

G99- Part 1. Connection of generation to the distribution network where the generating unit > 50 kW 3 phase (or 17 kW 1 phase) and < 10 MW

And

Connection of non type tested generation to the distribution network where the generating unit \leq 50 kW 3 phase (or 17 kW 1 phase)

(Typically by Developers, Industry, Commercial or Farms)

Note: 10 MW is not fixed at present - WG0048 reviewing banding

G99-Part 2. Generating unit 10 MW to 75 MW connected to the distribution network at < 132 kV

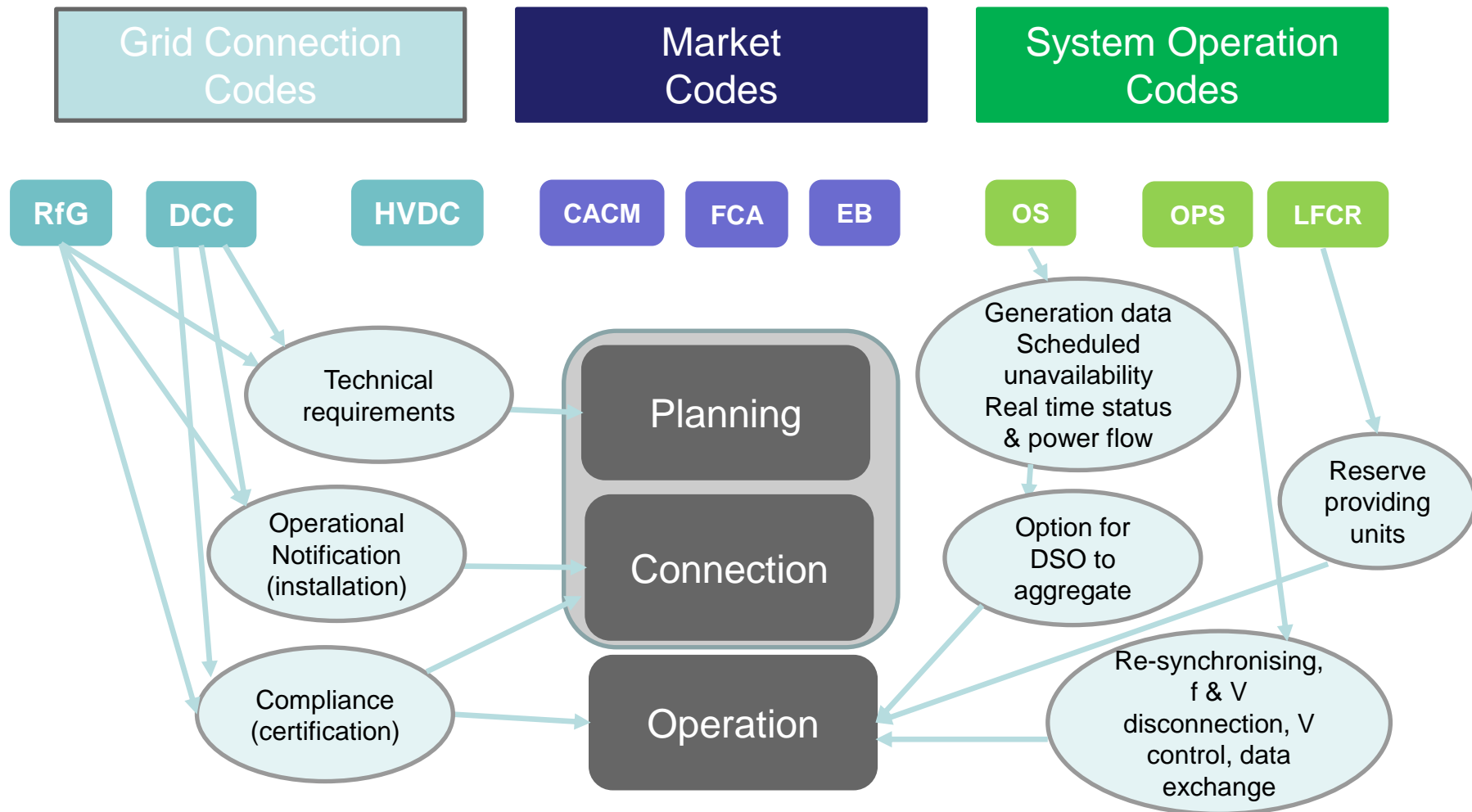
Note 10 MW is not fixed at present - WG0048 reviewing banding

A subset of G99 (G99-3) or covered in the Grid Code:

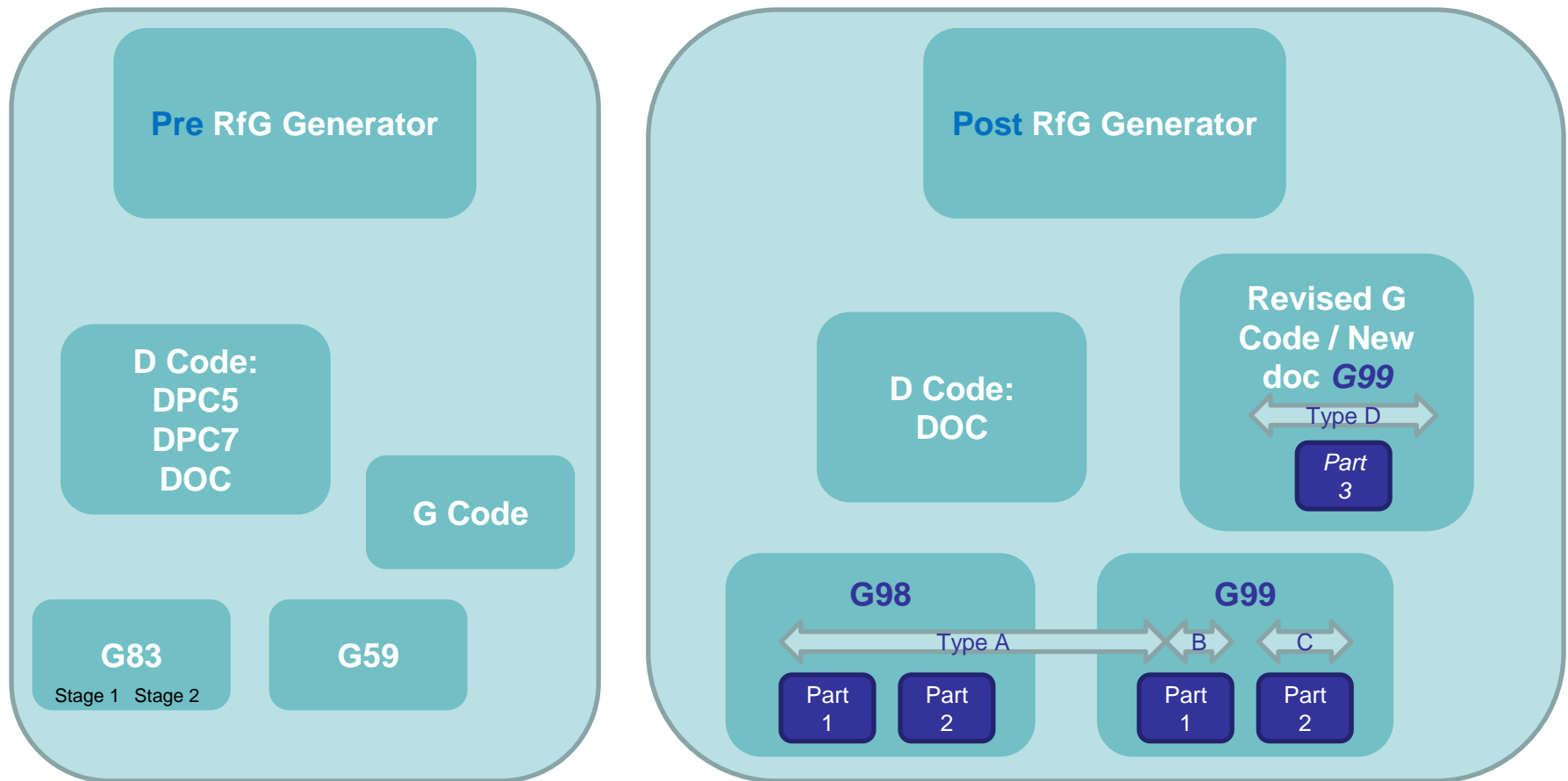
Any generating unit connected \geq 132 kV, and any Distribution or Transmission connected generating unit > 75 MW

Note 75 MW is not fixed at present– WG0048 reviewing banding

Inclusion of other EU Code Requirements



Anticipated Documents



Structural Proposals in Grid Code

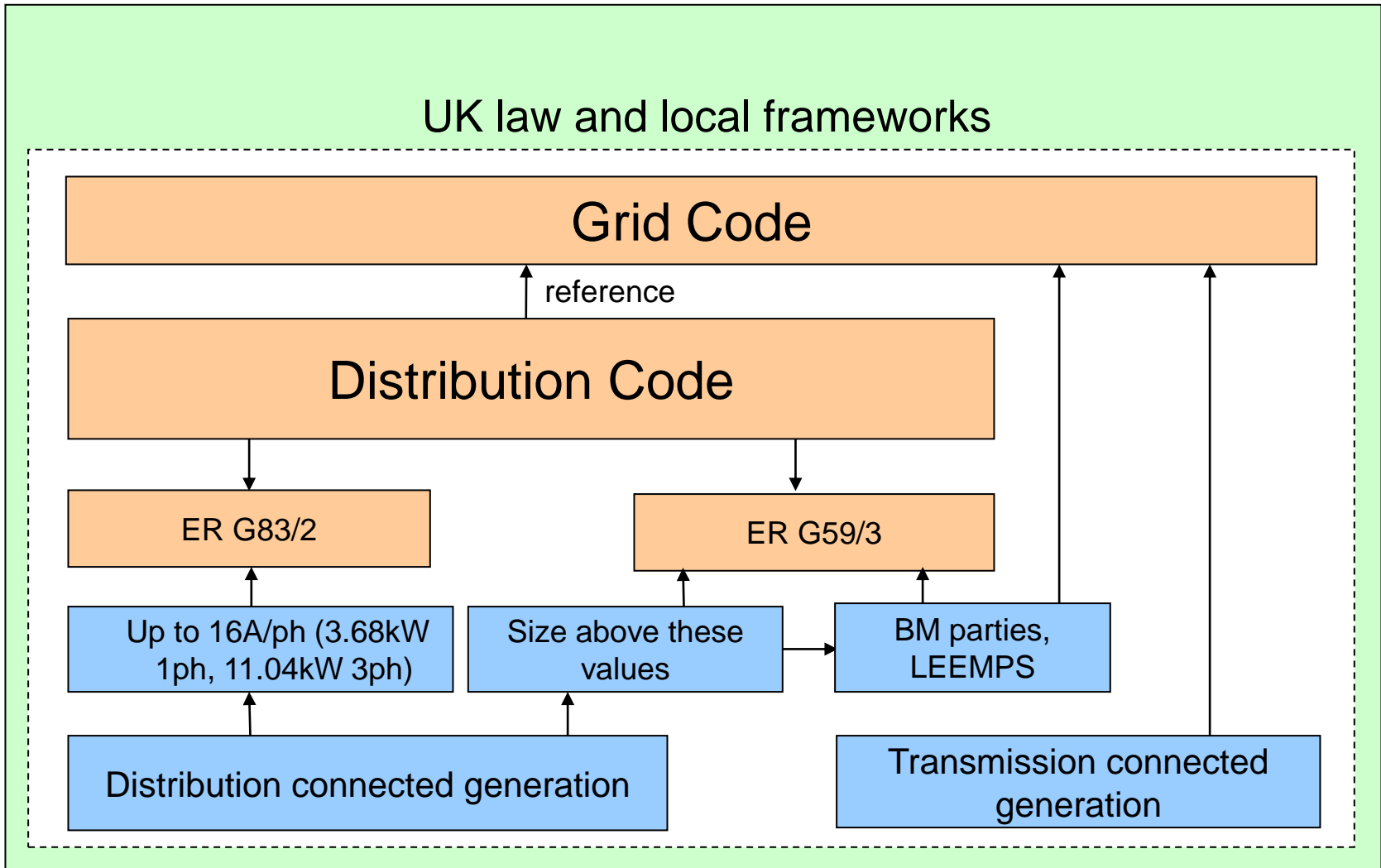


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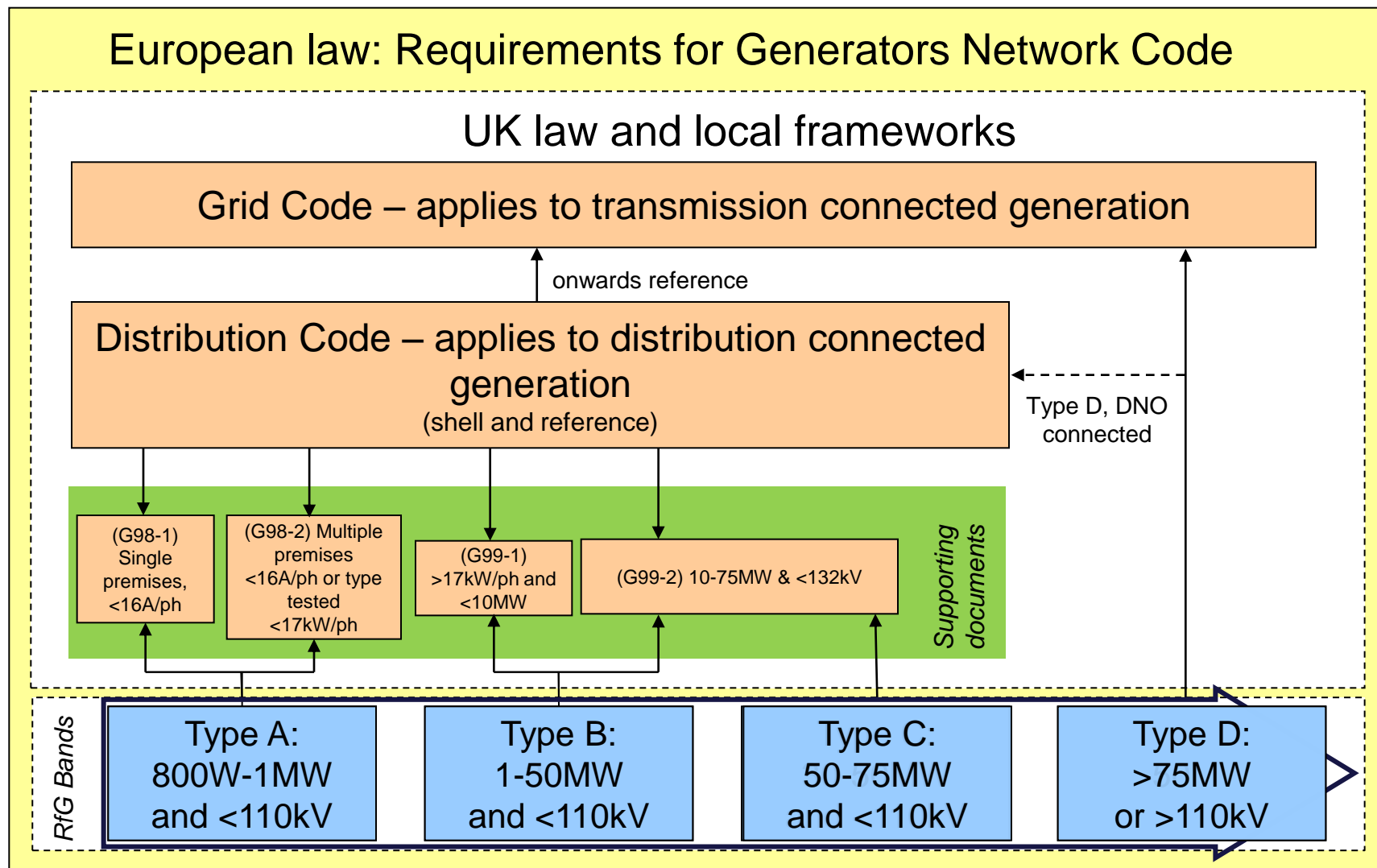
Existing GB Codes

Grid Code and Distribution Code work jointly; D Code is supported by Engineering Recommendations



Requirements for Generators Application

Place all requirements in Grid Code. D Code operates as shell and onwards reference to supporting documents



NB All thresholds subject to confirmation but shown for illustration

5. Connection Codes Implementation and Stakeholder Engagement

Barbara Vest / All

European Network Codes: GB Implementation



Progress Summary – Requirements for Generators (RfG)

JESG – 28/04/2015

Richard.Woodward@nationalgrid.com

Topics

- Introduction to RfG implementation workgroup
- RfG outputs/successes/challenges
- What next for DCC & HVDC? [Discussion]

GB Implementation Approach for Connection Codes

- Each EU member state needs to decide how to implement the European Network Codes (ENC) locally
- In GB there were three approaches considered:
 1. DECC led legislative approach
 2. Ofgem led Third Package powers to direct changes
 3. Industry-led – via existing Code modification processes
- For the Connections suite of ENC – RfG;DCC;HVDC approach **three** was agreed between DECC/Ofgem and NGET
- This was agreed in Q1 2014 following engagement through the Code Panels and groups like ECCAF

Advantages of Using Existing Codes Processes

- Familiarity in using code governance routes and their support processes (e.g. modification workgroups/industry consultations etc.)
- Exploits close GB working relationships between DECC/Ofgem/NGET and the wider industry; acknowledging that better representation for smaller-scale generators is necessary
- Wide range of technical experts and regulatory knowledge already engaged in GB code governance, and strong awareness of European codes
- Strong and supportive governance from Code Panels, for oversight of any workgroup/consultation and code implementation work

Joint GCRP/DCRP RfG Workgroup

- Direction from all parties to use existing processes as far as possible
- Terms of reference for workgroup circulated to all GB code panels
 - Approved by GCRP and DCRP in late 2013
 - At the time, prediction for RfG to enter into force mid-2014!
- Discussed at JESG, in DECC/Ofgem forums
- Workgroup (GC0048) formed in Jan 2014; 10 meetings since then

Workgroup Successes to Date

- Well attended by industry
- Project Plan for implementation; a GB Risks Register
- Proposed structure for work packages to set national parameters stipulated in RfG
- Preparatory work on Cost-Benefit Analysis needed for setting local x4 Type MW thresholds (“banding”)
- Proposals for structural changes to the D-Code, as well as new supporting documents [presentation to follow]

Key Challenges For RfG and Beyond...

- Getting continued engagement from smaller parties – recent success with solar industry and small-scale wind
- Ensuring timely completion of identified tasks
- Access to industry resources (to be discussed)

Additional Benefits of this Group

- Has filled a vital role in coordinating GB stakeholder engagement on RfG to influence the Commission via ACER
- Progress on code implementation – GB are ahead of all other member states
- Have built a genuinely collaborative approach to finding the best GB solution for all parties

DCC & HVDC – What next? [Discussion]

How should we best manage the GB adoption of DCC and HVDC to ensure a resource-efficient, inclusive and timely implementation?

- Extend the Terms of Reference of GC0048 (RfG) to incorporate HVDC and DCC?
- Create new modification workgroups under applicable Code Governance (GCRP/DCRP etc) for HVDC and DCC?
- Other? Feedback welcome to the JESG mailbox:
european_codes.electricity@nationalgrid.com

6. Emergency & Restoration Network Code: 14 April Stakeholder Workshop Feedback

Ofgem/DECC

7. Harmonised Allocation Rules (HAR) Consultation Feedback

Lorcán Murray
NGIL

8. Future Meeting Dates

Sara-Lee Kenney
JESG Technical Secretary

Forthcoming Meetings: ENTSO-E

Tuesday 22 to Thursday 24 September 2015:

SGTech Europe 2015 - Smart Grid Technical Forum

For information and advertised in the JESG Weekly Updates:

Monday 11 May 2015 (**registration closed 24 April**)

Project TERRE Event, ENTSO-E Offices, Brussels

Source: www.entsoe.eu/news-events/events

Forthcoming Meetings: ACER

There are no forthcoming events scheduled to date for ACER.

Source: <http://www.acer.europa.eu/Events/>

Forthcoming Meetings: JESG

Next JESG Meeting: 21 May 2015

2015 Meeting dates can be found on the JESG Website.

Registration is required and will be opened through the JESG Weekly updates.

europeancodes.electricity@nationalgrid.com

9. Review of Stakeholder Representation

Barbara Vest

JESG Independent Chair

10. Any Other Business

Barbara Vest

JESG Independent Chair

Lunch: 12-12:30

