NETWORK CODES

Presentation of the template proposed for the monitoring of national implementations

6th GC-ESC

Ljubljana, 7th June 2017

Outline

1. Context of EURELECTRIC's proposal for Active Library

2. Presentation of the template proposed

3. Organization and some principles to be decided

1. Context of EURELECTRIC's proposal for Active Library (AL)

- During 5th GC ESC, some weaknesses of the present AL were recognised:
  - No presentation of the content, **transverse** to all European countries
  - Some doubt about the **status** of the information (approved, project only…)
  - Some doubt about the **reliability** of the information

- In reaction, ENTSO-E reminded that ENTSO-E can't do all tasks or be responsible for all problems in AL.

- EURELECTRIC wishes that stakeholders can contribute more actively to all GC ESC work.

- Therefore we proposed to provide a **template for common monitoring** of national implementations:

- The **present proposal is focused on RfG code** given the important number of requirements to be implemented in this code
  - The same principles should be applied for DCC and HVDC.

*eu*relectric
ELECTRICITY FOR EUROPE

2. Presentation of the template proposed

- **The role of the AL is important** because it is a formal means contributing to one of GC ESC's missions: **monitoring of national implementations.**

- As a first proposal, the template is quite operational an basic.
  - This template is to be discussed and amended by all members of the ESC.

- The template proposed contains **4 sheets** as follows:
  - **'Legend'**: reminder of the objective of the document, **explanations** on its' content
  - **'Organization'**: existence or not of formal national stakeholder committee dealing with the implementation of RfG, list of main topics in progress or expected
  - **'Technical'**: main sheet with the **list of all technical and non-exhaustive** requirements of RfG code
  - **'Other'**: any other requirement or topic that the committee wants to monitor

eurelectric
ELECTRICITY FOR EUROPE

2. Presentation of the template proposed

- Sheet '**Legend**'

Objective of the document	This document has been proposed in **Grid Connection - European Stakeholder Committee** (meeting on 14th March 2017) and aims to present a global EU overview on RfG implementation in different countries. It contains 3 sheets: - Organization of the national implementation consultations - technical non-exhaustive requirements (Art. 13 to 28) - other non-exhaustive requirements

Sheet '**TECHNICAL**'	Precision / Comment
Abbreviations	…
Group of main functions	…
A to D (col. C to F)	…
Status of the discussions, for each requirement	(empty) Nothing published
	RED 'Working Draft', **AMBER** 'Draft Proposal' **GREEN** 'Final Agreed Text' **BLUE** (Green) 'Agreed Text Under Review' **PURPLE** 'Potential Change'
	[*The document status colours are explained further in the slides*]

eurelectric
ELECTRICITY FOR EUROPE

2. Presentation of the template proposed

- Sheet 'Organization'

About the **organization** of the implementation	
Topic	**Country X** **(Contact NAME: X)**
Stakeholder Committee?	General information such as: - Formal committy launched: [Y/N] - Since: [month/year] - Secretary by: [entity] - Authority participation: [Ministry, Regulator, ...] - Other stakeholders: [Generators, Manufacturers, Associations,...] - Frequency of meeting: [every month, ...]
Topics and priorities?	Technical requirements (priority): - frequency - voltage - FRT - ... Other topics: Not-technical issues/tasks identified: 1/thresholds ABCD 2/updates of national documents (laws+Technical 3/CBA and Derogations ...

eurelectric
ELECTRICITY FOR EUROPE

2. Presentation of the template proposed

- Sheet '**Technical**'

Topic	Article	A	B	C	D	Requirement (abstract)	RfG range MIN	RfG range MAX	Country X (Contact NAME: X)	Country Y (Contact NAME: Y)
frecency	13.1.a.(i)	x	x	x	x	**Time period for operation / f range (Hz)**				
frecency	13.1.a.(i)	x	x	x	x	47,5-48,5	30 min	-		
frecency	13.1.a.(i)	x	x	x	x	48,5-49,0	not less than above	-		
frecency	13.1.a.(i)	x	x	x	x	49,0-49,5	unlimited	unlimited		
frecency	13.1.a.(i)	x	x	x	x	49,5-50,5	unlimited	unlimited		
frecency	13.1.a.(i)	x	x	x	x	50,5-51,0	unlimited	unlimited		
frecency	13.1.a.(i)	x	x	x	x	51,0-51,5	30 min	30 min		
frecency	13.1.a.(i)	x	x	x	x	51,5-52,0	out of scope	out of scope		
frecency	13.2	x	x	x	x	**LFSM-O**				
frecency	13.2.c	x	x	x	x	DELTA f1	+200 mHz	+500 mHz		
frecency	13.2.d	x	x	x	x	droop	2%	12%		
frecency	15.2.c.(i)			x	x	**LFSM-U**				
frecency	15.2.c.(i)			x	x	DELTA f1	49,5Hz	49,8Hz		
frecency	15.2.c.(i)			x	x	droop	2%	12%		
frecency	15.2.c.(i)			x	x	Pref. for synchronous	Pmax	Pmax		
frecency	15.2.c.(i)			x	x	Pref. for not synchronous	Pinst	Pmax		

Other topics (group of homogeneous functions): Voltage, FRT, Stability & Robustness, Restoration, Other

eurelectric
ELECTRICITY FOR EUROPE

2. Presentation of the template proposed

- Sheet '**Other**'

Topic	Article	Abstract	Country **X** (Contact NAME: **X**)	Country **X** (Contact NAME: **X**)
Thresholds (Pmax) types B, C & D	5.2	Limits for thresholds for type B, C and D (CE =>1 MW/50MW/75MW)		
Definition of '**Existing unit**'	4.2	A Member State may provide that the regulatory authority may determine whether the unit is existing or new		
Substantial modification	4.1.(a)	RfG applicable (part or all) to types C or D when a PGM has been modified to such an extent that its connection agreement must be substantially revised		
Costs-Benefits Analysis	38 & 39	…		
Derogations (**Criteria**)	61.1			
Derogations (**Procedure**)	62 & 63			

3. Organization and some principles to be decided

- Questions and EURELECTRIC's suggestions

- **Q1**: Who should fill the document? => ENTSO-E

- **Q2**: Who should provide the information? => TSOs

- **Q3**: How to encourage each country to provide information? => ACER (or ENTSO-E) to **send a letter** to NRAs (resp. TSOs) to ask for providing the information requested.

- **Q4**: How should the document be presented in AL (simple excel file? pdf? Or more value-added presentation?) => no opinion

Status Colour Introduction / RED

- The proposal is a simple 'traffic light' approach to the information presented in the library so that all stakeholders can quickly and easily understand the '*status*' of the documentation (which can be accessed directly via a web link on the library) held in the AL.

- (*Empty cell in the Active Library*): Nothing published

- **Red: the documentation is a '*Working Document*'** being developed by the organisation(s) responsible (such as the TSO(s) Relevant System Operator(s), DSO(s) etc.,) under the particular Article of the Network Code / Guideline.

- Red is to signal to stakeholders that **they cannot rely on this early version of the document being the agreed final text**.

Status Colour AMBER / GREEN

- **Amber: the documentation is a '*Draft Proposal*'** being developed by the organisation(s) responsible (such as the TSO(s) Relevant System Operator(s), DSO(s) etc.,) under the particular Article of the Network Code / Guideline which may, or may not, be consulted upon.

- Amber is to signal to stakeholders that whilst they cannot fully rely on this version of the document, **it is becoming clearer what the agreed final text may be**.

- **Green: the documentation is the '*Final Agreed Text*'** approved by the appropriate organisation(s); such as the TSO(s) Relevant System Operator(s), DSO(s), NRA(s) etc.; in accordance with the particular Network Code / Guideline.

- **Green is to signal to stakeholders that they can fully rely on this version** of the document – *it is the applicable text*.

- There will be occasions where it is required (by the Network Code / Guideline) or appropriate (perhaps because of the passage of time etc.,) to **review or update the (Green) '*Final Agreed Text*' and in this case Blue will be used**.

Status Colour BLUE / PURPLE

- **Blue** is to signal to stakeholders that whilst they can fully rely on the documentation in the AL; i.e. the (Green) '*Final Agreed Text*' version of the document – *it is the applicable text until any changes are formally agreed* – that it **is being formally reviewed / updated** (by the responsible organisation, such as TSO(s) etc.) and so it <u>may</u> change.

- To be clear, the content of the (Green) '*Final Agreed Text*' documentation itself <u>does not change </u>under Blue – **any proposed change documentation would be under Purple**.

- **Purple: the documentation is the '*Potential Change*'** by the organisation(s) responsible (such as the TSO(s) Relevant System Operator(s), DSO(s) etc.,) under the particular Article of the Network Code / Guideline which may, or may not, be consulted upon.

- Purple is to signal to stakeholders the potential amendment(s) / update(s) to the (Green) 'Final Agreed Text' (which remains in force – *it is the applicable text until any (Purple) changes are formally agreed*).

Thank you