

ENTSO-E User Group meeting on “Network Code for Requirements for Grid Connection applicable to all Generators” (NC RfG)

16 January 2013 - 10:30 h – 15:30 h
ENTSO-E offices (ground floor)
Avenue de Cortenbergh 100
1000 Brussels

FINAL MINUTES

AGENDA

<i>Coffee</i>	
10:30	Welcome, agenda
10:45	TOPIC 1 : Significance Test to identify „significant grid users“ <ul style="list-style-type: none"> - Overview of User Group response received - Open discussion
11:45	TOPIC 2 : Justification of the significant deviations from existing standards and practices, related to Article 9(3) (a) and Article 3(6) (h) <ul style="list-style-type: none"> - Overview of User Group response received - Open discussion
12:45 <i>Lunch</i>	
13:45	TOPIC 3 : National scrutiny of the NC’s requirements to be implemented at national level <ul style="list-style-type: none"> - Overview of User Group response received - Open discussion
14:15	TOPIC 4 : Recovery of Costs incurred by TSOs and DSOs <ul style="list-style-type: none"> - Overview of User Group response received - Open discussion

14:30	Any other views
14:45	Summary and next steps : <ul style="list-style-type: none"> - amendment RfG package - integration of User Group views in ENTSO-E response to ACER/EC - public information session before resubmission to ACER/EC (tbc)
15:00	End of meeting

ATTENDEES

Association	Representative	Affiliation
CEDEC¹	Marc Malbrancke	Inter-regies
	Herman Poelman	Alliander
COGEN Europe	Fiona Riddoch	COGEN Europe
	Bob Knowles	BDR Thermea Group
	Dave Clark	MEC
EDSO for Smartgrids¹	Florian Chapalain	EDSO for Smartgrids
EHI	Eckhard Schwendemann	ES-TMC / Viessmann
	Dana Popp	EHI
	Christoph Thoma	BDH
EPIA	Bernhard Ernst	SMA
	Alexandre Roesch	EPIA
EUR	Herve Meljac	EdF Energy
Eurelectric DSO¹	Pavla Mandatova	Eurelectric DSO
	Siegfried Wanzek	EON
Eurelectric WG Thermal	Joerg Kerlen	RWE
	Eric Dekinderen	Electrabel
EUROMOT	Niklas Wagar	Wartsila
	Paul Zepf	EUROMOT
EUTurbines	Maxime Buquet	GE
	Ulrich Tomschi	Siemens

¹ Viewpoints of CEDEC, EDSO for Smartgrids, Eurelectric DSO and Geode are indicated in this report as 'DSOs'

EWEA	Paul Wilczek	EWEA
	Frans van Hulle	EWEA
Geode¹	Johan Lundqvist	Svenskenergi
IFIEC	Jean Pierre Becret	Solvay
VGB PowerTech	Philippe Lebreton	EdF
	Ton Geraerds	RWE
ENTSO-E	Dimitrios Chaniotis	ENTSO-E
	Luis Coronado	REE
	Anders Danell	Svenska Kraftnet
	Edwin Haesen	ENTSO-E
	Ralph Pfeiffer	Amprion
	Jerzy Rychlak	PSE-O
	Sergio Martinez	REE
	Helge Urdal	National Grid
Observer	Uros Gabrijel	ACER
	Jakub Fijalkowski	e-control
	Tadhg O'Briain	EC – DG ENER
	Gunnar Kaestle	CENELEC

1. Welcome, attendance, agenda

This RfG User Group meeting is initiated by ENTSO-E in the process of its further work on the four areas called upon for improvement in ACER's Opinion on NC RfG (13/10/2012).

First discussions on how to address these areas were discussed in the User Group meeting of 22/11/2012. ENTSO-E sent its draft proposals on each of these items to the User Group² on 17/12/2012 for feedback. Today's User Group focuses on feedback of all participating associations on the proposals, arguments and questions raised in this text.

ENTSO-E notes the concerns expressed by the User Group on other items in the code, mostly related to how requirements are implemented at national level, how some settings are believed to be technically not feasible, and how coordination across Member States can be ensured. Aiming at an adequate and timely closure on the areas explicitly addressed in ACER's Opinion, ENTSO-E is assessing how the discussion can be continued in the short term on various national implementations.

² And published on the ENTSO-E website on 08/01/2013

All feedback received prior to the User Group meeting, is sent to all participants and will be published on the website, unless asked for otherwise.

2. Justification of the significant deviations from existing standards and practices, related to Article 9(3) (a) and Article 3(6) (h)

a. EWEA presentation

EWEA expresses its concern on how requirements for fast reactive current injection during faults, active power recovery after a network fault and specific UQ requirements for distribution level are eventually implemented at national level and questions the most onerous values in the ranges given. EPIA and EWEA have prepared a joint position paper with alternative formulations on these three key technical concerns for the RES industry and circulated it among the user group ahead of the meeting. ENTSO-E notes that the question on the agenda today focuses on the justification that FRT requirements should be mandatorily imposed on type B units, leaving flexibility in how to do this based on local system needs.

EWEA and EPIA claim no proper justifications were given and there was no proper interaction with the associations on the fast reactive current injection requirement, besides the fact that it was introduced only after the public consultation was finalised, briefly before the NC RfG was published. EPIA shares the position of EWEA and asks for more clarity on why 10ms for fast reactive current injection could be possible and where. ENTSO-E states that the requirement in itself is driven by system needs when facilitating RES integration. The range (10ms - ...) is based on what some technologies could deliver, and is linked with transmission protection measurement kicking in as of 5ms in certain cases. A higher minimum time, could make the requirement useless in some specific cases.

COGEN Europe states the concern that the most onerous values in ranges are expected to set a reference point for manufacturers in discussions with clients. EWEA notes this would mean in practice that every manufacturer will have to prepare to meet the most onerous values in these requirements, regardless of the national implementation.

b. EUROMOT (see paper)

On the topic of FRT for type B units, EUROMOT asks for a clearance time of 100-150ms in the code based on existing practices, together with a retained voltage level (U_{ret}) of 30% and reasonable normal operational considerations, i.e. generator slightly overexcited and at nominal voltage for generators of type B and C connected to the distribution system. EUROMOT asks that longer fault clearance times are covered by derogations in exceptional cases.

ENTSO-E notes that ranges in the code are no blank cheque to set the most onerous value, but set boundaries on what the national processes can specify. The range as given in the NC RfG covers indeed also the longest clearance times in present grid codes (Nordic countries). The feasibility of coping with a long fault clearance time has to be seen in relation with the test conditions which the code asks also to specify.

On the topic of industrial CHPs, EUROMOT recommends including hot water producing CHP under the provisions of Article 3.6.h

c. EUTurbines (see questions sent)

EUTurbines supports the earlier statement of EUROMOT on FRT requirements. Other questions proposed for discussion, are out of the scope of today's agenda.

d. COGEN Europe (see slides)

COGEN Europe does not question the need for FRT, but asks if cost implications have been assessed, also with regard to other system solutions.

ENTSO-E refers to the outcome of the 22/11/2012 meeting with the DSO Technical Expert Group, sharing the view that there is no viable alternative at the transmission-distribution interface. Further cost implications are dependent on further specifications of the FRT requirement in the related national process.

COGEN Europe supports the replacement of the word 'steam' by 'heat' throughout Art 3(6)h. Questions are raised by some User Group members on the other criteria of the Article (e.g. industrial site, not related to LFSM-O). ENTSO-E confirms its proposal is to not amend the other conditions mentioned in the article.

e. DSOs (see slides)

The DSOs support ENTSO-E's proposed response on the FRT item regarding MV connected generation. In exceptional cases type B units may be LV connected. In any case, the further impact depends on the implementation in the national process which the DSOs consider to be the appropriate forum.

CENELEC notes that it works on specifications on FRT for low voltage connected generation as well and supports that FRT on distributed generation can support system stability.

3. Significance Test to identify „significant grid users“

a. COGEN Europe / EHI (see slides)

COGEN Europe and EHI present an overview of the technical potential of stirling engine, internal combustion engine and fuel cell based micro CHP. Proposals are given for amendments of the significance test and derogation procedure. The proposals are based on general principles, not restricted to specific technologies. In addition, a mandate in the code is requested to develop NC-compliant standards.

In the following discussion it is again stressed that a European Regulation supersedes a standard, even when it would be enforced by national law. Also, a Network Code cannot link to standards, or mandate standards, which would make an external document (not covered in comitology and potentially changing) enforceable by law. The DSOs and EPIA stress that adequate standards are needed for test methods. EPIA asks that standards should at least be linked to national implementation principles. EPIA supports also class derogations which are clearly initiated by manufacturers, not only by the relevant network operator.

ENTSO-E asks COGEN Europe and EHI for clarification of how this proposal could consider 'same behaviour of a technology group' and how this would relate to a given threshold. How can this approach

avoid an indefinite number of individual groups being created which never cross the threshold? If technology A disconnects at 49.5Hz and in a few years technology B emerges which has to disconnect at 49.6Hz, are both part of a different group then?

EHI clarifies that the proposal would only be valid for emerging and existing technologies at the moment the code becomes applicable. ENTSO-E suggests that only a clear and exhaustive list of technologies in the code can avoid backdoors. EHI acknowledges, but the focus of its proposal for amendments is on the basic principles.

The DSOs ask to keep the experience of retrospective applications in mind when considering exemptions (e.g. Germany, Italy). ENTSO-E notes that also already other historical issues are being discussed for retrofit (ROCOF in GB).

COGEN Europe understands the implications of retrofit, but asks to focus on innovation and new technologies which is a risky operation already. ENTSO-E asks how a 0.1% threshold as proposed would make the development less risky. If market uptake is uncertain, it could quickly surpass the threshold, necessitating actions (halt on connections, redesign) anyway. COGEN Europe and EHI state they do not believe in a sudden boom for micro CHP under the present incentive schemes.

COGEN Europe and EHI state that products like Stirling with fundamental design constraints which prevent them meeting the code need provisions written into the code. A significance test related to market penetration and cost benefit analysis would ensure that the investment required to overcome these design constraints and complying with the NC RfG can be justified with sales revenue.

COGEN Europe and EHI confirm that the linear stirling engine based micro CHP technology is the only problem situation at present for coping with the type A requirements of the NC RfG and ask for it to be addressed in the significance test. For other technologies such as fuel cell and internal combustion engine, both of them are complying with the frequency range given in the NC RfG but not with all the timing responses as given in the NC RfG. COGEN Europe and EHI request a manufacturer based European wide or Synchronous Area wide derogation to be implemented in the NC RfG.

Several User Group members ask that the derogation is amended to stress for more coordination at synchronous area level. Reference is made to operational codes where TSO coordination is often prescribed in requirements. ENTSO-E acknowledges that coordinated decisions would be preferred on frequency related matters. ENTSO-E asks how coordinated NRA decisions can be ensured.

The EC notes that it would expect more explicit coherence on connection rules in a European code.

b. EUTurbines (see questions sent)

EUTurbines would advocate for manufacturers to have an active role in derogations and asks how this can be done at a European level without having to go through 27 individual processes? ENTSO-E notes that even in European context you still need the national data and settings to base an analysis on and which is to be collated. EUTurbines repeats that its concern on divergent practices is related to the uncertainty of how national settings will be decided upon.

c. DSOs (see slides)

The DSOs asks for more clarity on the interpretation of the derogation process across Europe and how divergent NRA decisions are avoided.

4. National scrutiny of the NC's requirements to be implemented at national level

a. EUTurbines (see questions sent)

EUTurbines expressed its views on national implementations already.

b. Eurelectric WG Thermal (see questions sent)

Eurelectric WG Thermal is working on a proposal for Article 4(3) and will send it to ENTSO-E later on.

Eurelectric WG Thermal asks why ROCOF specifications are not dealt with at synchronous area level and fears the risk of market distortion. ENTSO-E acknowledges that the value should preferably be coordinated across a synchronous area. The process for specifying the value is still not simply at a TSO's discretion but safeguarded by the provisions of Article 4(3). The risk of creating a barrier for new connection applicants because of stronger ROCOF requirements would have to be considered then anyway in the national process, probably with a clearer view on all implications (cost, system security, ...).

Eurelectric WG Thermal asks why the specification of protection settings is not covered by Article 4(3) and would expect a consultation then still. ENTSO-E argues that because of the site specific nature a different approach is better suited. Eurelectric WG Thermal / VGB consider that even in those case the principles of 4(3) and consultation should apply.

Eurelectric WG Thermal / VGB restate the proposal to split FRT requirements up per Synchronous Area, allowing a fault clearance time up to 250ms in the Nordic system and up to 150ms in the rest of Europe. ENTSO-E restates that any FRT implementation will be performed based on global and local system conditions, with regulatory oversight as prescribed by Art 4(3). The present range covers present practices.

The table of requirements with no Article 4(3) reference covers also Article 10.2.b.1 on LFSM-U. Eurelectric WG Thermal asks why the droop settings are set at national level without even a reference to the national process. ENTSO-E notes that the coordination aspect of the droop specification is expected to be covered by operational codes (LFC&R) which should be seen as complementary rules.

c. DSOs (see slides)

The DSOs question the proposal for Article 4(5) as it seems as if a TSO can impose a decision where an agreement could be concluded between the Relevant Network Operator and grid user.

d. EWEA (see slides)

EWEA expresses a concern on how national decisions will eventually be set. The current ENTSO-E proposal on this does not provide any further clarity on the provisions in the NC for the general TSO/DSO decision-making framework with regards concerns expressed repeatedly by EWEA on national implementation of

non-exhaustive requirements. EWEA argues that the suggestion of ACER's reasoned opinion to explicitly mention an entity competent for technical matters is not taken up and that the reference to Directive 2009/72 is overly vague.

5. Recovery of Costs incurred by TSOs and DSOs

a. DSOs (see slides)

The DSOs express their support for keeping a clause on cost recovery for DSOs in the code.

EUR regrets there is no clarity on recovery of costs for generators in the code and ask for ACER's position on this? ACER acknowledges it did not refer to cost allocation/recovery to generators in its Opinion, but is looking into a possible compromise on the cost recovery clause.

6. Concluding remarks

ENTSO-E takes all feedback given in consideration for amending the RfG package in a timely manner.

The EC restates its expectation that 'a draft code with an endorsement of ACER' is finalized shortly (February). The EC has engaged with consultants to prepare a report for the EC as input for the Impact Assessment. For this reason the EC may get in contact with some User Group members. The comitology procedure is expected to start in the second half of 2013.

End of meeting