



Grid Connection ESC Ljubljana, 09 December 2016

Luca Guenzi

The Members



European Association of Gas and Steam Turbine Manufacturers



70.000 highly qualified employees in the sector Business Volume of € 25 billion More than € 6 billion purchase volume in Europe (mostly to SMEs)



IGDs & Expert Groups (CBA)



1st Revision of IGDs issued on 1st July 2016

Commented by Stakeholders until 15th August 2016

In the Grid Connection ESC, it was agreed to have 4 expert groups, to be kicked off in August's 2016 session. Other technical groups to be set-up in December.

Revised IGDs issued on 15th November 2016

CBA expert group meeting on 21st November 2016

Compliance expert group meeting on 28th November 2016





EUTurbines provided comments to the CBA IGDs 1st Revision

When do the CNCs require a CBA?

CBA shall be a criteria that can be used also to evaluate technical alternatives for requirements, including the definition of non-exhaustive requirements.

The different codes have many (many) non-exhaustive and nonmandatory requirements. Despite the information on the IGDs (which, by their definition cannot include reference values), CBA can be useful for the System Operator as an instrument to define values.

Additional: CBA can be used, for example, to define eventual parameters not present in the NC.

IGDs \rightarrow to include a reference to such use of CBA



The list of data requested by the system operator shall be consistent with normal/typical data available for the generating unit technology, taking into account when the generating unit has been built.

This has to be acknowledged by the System operator and shall not constitute a breach of CNC obligation.

IGD shall set up correct expectations of the System Operator in terms of data that can be provided. A dedicated statement shall be included.



Emphasis on alternative technical solutions, considering also operational plan and operational strategy and the pursue of such alternatives.

The CBA shall be focused on the technical issue to be solved, considering all elements of the grid and not only focus on generating units.

IGD shall put the correct emphasis on CBA to consider all elements of the grid and different possible alternatives.



The way the CBA is to be evaluated is not defined.

The process used to evaluate CBAs and responsible to complete the evaluation shall be clearly stated.

The process shall minimise any risk of conflict of interest.

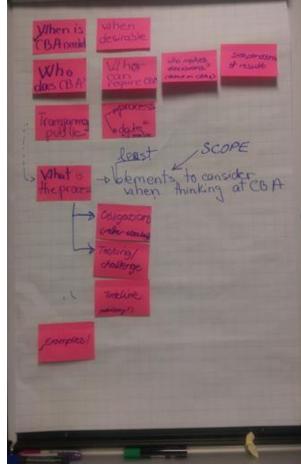
IGD to clearly define evaluation process (e.g. process flow examples) and to give guidance on having no conflict of interest in the process evaluation.



IGDs & Expert Groups – CBA: September Public Consultation

We attended

According to the second
Harman TG.D.04 -CBAs
El . Sus au due à CNCs CBA are
Altrease Des mare recent
· Do all regulators take the bark of a provide of the second of a start of the submitted to regulators > . These a card sorry out a cabout the regulators of a start second corry out a cabout
· Castal rad wellede more detail on OBA . processo
Lo who a it automated to 3 What ODA · Non-abdenies agreement 3 correction · Temperency is important
Textury & results of CBA - servicesty analyses
·Hormorizability acrets Europe. - work to come to the some construction. (or which the some methodologies)
· could certain key principles to established?
4



Categories & Cates/ Emelites	
- Equipment seet. - Ergenentry (development south - Unit seet. (pr Unit) - Connection seet. - Operational cost. - Operational cost. - Sta	
• System benefit	
· Alternaturez	

...and intensively contributed



It has been agreed to set up a further meeting to decide if an expert group is needed

The follow-up meeting was set on the 21st of November (several months after the September meeting and after release of the revised IGDs).

During this meeting, no representative of EUTurbines was able to attend the meeting.



The agenda of the meeting was based on the previous meeting open questions.

We understand that the meeting concluded that there is no need to set up an expert group, at least before March, when the IGDs will be revised again.

The IGD on CBA released in November has minor modifications, but **we do not feel comfortable with timeline and the process set-up**. The lead time to have an expert group set and running is almost 6 more months.



We do not feel the point raised previously by EUTurbines has been covered and we would like to insist on having an expert group being set-up.

We would like to:

- contribute by providing supporting answers to the questions on the last meeting's agenda.
- have the possibility to contribute to the IGD drafting before its release in March.
- have a better set-up for any next meeting (webex [we asked for that for the CBA meeting], other means to contribute)



Different types of requirements



EUTurbines and ist members contribute and participate in several technical committees.

During the discussions in such committees, the question has been raised several times, whether at national level «more stringent» requirements and/or «additional» requirements can be added (not foreseen, for example, in the RfG)

Rationale is that, despite the high number of non-exhaustive requirements, at committee level, some parameters seem to be missing (shall be these considered additionals? More stringent?...). It is also not clear whether adding a requirement means to have more stringent requirements



Specifically this issue can be categorised as follows:

- To add parameters that just help defining a requirement and for which it has to be evaluated whether it is imposing a more stringent requirement than the one posed (e.g. reaction time on LFSMO)
- To add requirements tout court: like adding FRT capabilities for Type A generating units

We understand the NC are not perfect and a way forward is needed to quickly fill the gap, where necessary, without losing the general frame (harmonisation).



We consider necessary:

- to define who can formally answer to process and technical questions
- to define the authority that can set up rules and the process for implementing such rules, which has to be respected by all
- To define the categorisation of the «additionals»
- To define the process for adding parameters/requirements, who can propose them, who can validate them

We support the use of CBA as a possible methodology to define additional requirements and eventually parameters that lead to critical more stringent requirements.



CENELEC Technical Questions

CENELEC has provided a list of Technical and General Questions, where a technical answer/clarification is needed.



THANK YOU