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## Consultation Questionnaire

Energy Norway, the non-profit industry organization representing companies involved in the production, distribution and trading of electricity in Norway, thanks for the opportunity to comment on this Framework Guideline. We believe that extensive consultations are crucial with regards to this important guideline and expect that this process will also continue in the future during the drafting of the derived network codes. Before answering the specific questions we would like to make some general remarks and raise some issues concerning the whole draft Framework Guideline.

**Interaction of the Framework Guideline System Operations with other guidelines and network codes:** Energy Norway appreciates that the Framework Guideline (FG) System Operation will define the principles, according to which ENTSO-E's coming network codes (NC) will set the standards for the future operation of an integrated European grid.

While it is positive, that the current draft FG mentions the possible connections with other FGs and NCs, we would welcome more clarity in the division of roles and hierarchy between FG System Operation and Grid Connection.

In our view, the FG system operation is especially important, as it interacts both with the coming technical NCs on grid connection and the coming market FGs and NCs.

Concerning grid connection, each requirement and obligation put on grid users (DSOs, generation and load) in the coming NCs should be clearly linked to system operation principles defined in the FG System Operation and implemented in the following NCs. Concerning markets, FG System Operation should start the process towards a certain harmonisation of standards for system operation, necessary to open the procurement of all system services to cross border markets regulated by the coming market FGs and NCs, amongst them capacity calculation, intraday and balancing.

**Cost Benefit calculation:** Energy Norway appreciates very much that the FG System Operation requires from ENTSO-E and the TSOs a Cost Benefit Analysis (CBA) for all new standards and requirements deviating from current practises and international standards.

However, we believe it necessary to give guidance to the TSOs with regards to the principles of a satisfactory CBA.

A standard approach would be to compare the cost of a potential lack of security or outage with the costs of alternative investments necessary to alleviate the risk. In our view the last part is especially crucial, as it is relatively more difficult to quantify the cost of an outage than the cost of an investment in new installations. To allow meaningful comparisons, TSOs should therefore not only compare one potential measure but several, ideally involving both investment in new transmission installations and investment and costs (fixed and variable) linked to generation and load. For example, voltage stability and quality can be dealt with by both investments and regulation of generators or by investments in part of the grid such as reactive power compensation units, FACTS and grid reinforcements. On another level, the balance between supply and demand in a country with transmission constraints can be guaranteed by building new transmission lines and by redispatch/countertrading, both placing the cost on the TSO, or by market splitting and establishment of new prize zones, placing the cost on the grid users. To sum up, if the cost of an outage or non acceptable power quality is deemed too high, there should always be several measures that should be compared in a CBA concerning both transmission networks and grid users. The optimal goal would be to choose those measures giving the highest social welfare benefit.

In addition, to ensure consistency approaches to CBAs should be similar whether the assessment derives from the FG System Operation or is connected to the FG Grid Connection. In our view, the FG System Operation would be the place to define principles for CBAs, given that the standards deriving from the FG System Operation should be used to justify requirements in the NCs Grid Connection.

**Opening for markets on balancing and system services:** Energy Norway appreciates that the FG asks to “consider” markets. However, in a regulated world, market mechanisms are not necessarily the obvious choice for TSOs, if an alternative of direct regulations by requirements and obligations is possible. Hence, the FG should state a clear obligation to develop and utilise market mechanisms, both national and integrated across borders.

In our view, the FG System Operation and the deriving NCs should only set the principles to determine the quantity of reserves and system services necessary, which then the TSOs have to procure in a market based way from both generation and load.

As mentioned above, the FGs should make a clear distinction between technical harmonization issues, where FG and NCs System Operation and NCs Grid Connection set common minimum standards as a precondition to markets, and market issues, which should be regulated in FG Balancing and FG CACM and derived NCs.

**The role of TSOs and DSOs:** the coming FG System Operation and especially the derived NCs can put quite a lot of tasks and obligations on DSOs for instance concerning data collection. In our view it is therefore important that the FG clearly states ENTSO-E and national TSOs obligations to involve DSO in the drafting of the relevant NCs .

### General Issues

1. The Initial Impact Assessment (IIA) identifies the following challenges (i) growing amount of distributed generation and variable generation (ii) increasing interdependence of control areas. Are there additional key cross-border challenges that the Framework Guidelines (FGs) and Network Code(s) on System Operation should address?

In our view the list of identified challenges to system operation is quite complete.

2. The Framework Guidelines identify a number of actions and requirements to be included in the Network Code(s) as a solution to these challenges. Are the actions and requirements identified in the Framework Guidelines appropriate to solve these challenges?

The action and requirements are a good start and cover the main issues. Nevertheless we would appreciate if especially the market aspects are further strengthened and the issue of information exchange more elaborated (see question 11).

3. Are the proposed levels of harmonisation sufficient to solve these challenges?

Yes, the levels of harmonisation seem logical and sufficient in the FG System Operation. However, further discussion might become necessary during the drafting of the NCs System Operation, when concrete standards are derived from the principles in the FG (see question 4).

The degree of harmonisation is also dependent on the definition of Significant Grid Users and if this is left for the national TSO to define. Hence, some general guidance on defining Significant Grid Users should be given.

4. Should the Framework Guidelines be more specific with regard to areas that need to be harmonised, both across and within synchronous areas?

Yes, in our view harmonised European standards are not always necessary, sometimes standards across a synchronous area or even national standards are sufficient. For example, Norway is connecting the city of Bergen with  $n = 0,5$ ,

whereas the standard applied in most of CWE is  $n - 2$ . Harmonisation in that case might be very expensive, so there needs to be a balance between harmonisation and necessary flexibility. We realise that the discussion might be difficult on the level of the FG. Therefore, the FG should in our view aim to guide ENTSO-E and the TSOs by defining some key principles, by which the decision between a standard across synchronous areas, within a synchronous area or only at national level can be taken and justified.

For example, one rule could be that, if a TSO wants to deviate from the common standard, he should argue for this exception and he should produce a cost benefit analysis, if he wants to apply stricter standards. In this respect, standard principles for CBA are important.

Another rule could be that harmonised standards across synchronous areas should be introduced, if they strengthen the possibilities for cross border trade.

5. Should the Framework Guidelines require the development of common rules for System Operation between synchronous areas?

Common rules for links between synchronous areas should only be developed, if they increase the amount of capacity available to the markets and contribute to levelling the playing field amongst market participants. The rules should impose no additional cost to grid users for example through prohibitive ramping restrictions.

6. Considering the current arrangements of the system operation rules and procedures throughout the EU, what would be an appropriate level of detail for the Network Code(s) on System Operation?

The current system operation rules are a good indication, additional ones might be appropriate if they increase opportunities for cross border exchange.

As mentioned above all new rules and requirements going beyond existing standards should go through an impact assessment and a detailed cost benefit analysis both at FG and NC level.

7. What key benefits and types of cost would you expect for compliance with these requirements? Please quantify from your point of view.

The main benefits we see in harmonised binding minimum standards are increasingly secure system operation and potential additional capacity available for cross border exchange and the levelling of playing field for market participants.

The main type of cost we see are the potential investments necessary to comply with new standards defined in the derived NCs system operation and grid connection. Besides an obligatory CBA, we therefore also emphasise the need to strengthen market based procurement of system services to avoid for example

applying the same black start capability to existing and new generation installations and to all types of generation. If new standards are applied to existing installations, the cost should be carried by the TSOs.

Another type of costs is the cost of information exchange, which can become quite considerable if more real time information is required from grid users. Taking into account the interaction with other legislation requiring that type of information could potentially lead to double reporting and increasing cost. Coherence with for example the NC fundamental data transparency is therefore essential.

8. Should the Framework Guidelines be more precise on organisational aspects of operational security, in particular with regard to security assessment?

We would appreciate a higher emphasise on transparency requirements for TSOs in their security assessment. The setting of reliability margins for example has a considerable influence on how much capacity is available for exchange.

#### Specific Issues

9. Are the implications for *significant grid users* clear and relevant?

In our view, it is still not entirely clear who is going to be defined as a significant grid user. We realise that the FG Grid Connection asks for the TSO to work out a definition and a “significance test” in the NC Generation Connection. It is important that the definition is consistent between the FG System Operation and Grid Connection and the derived NCs. In addition, the grid users need to be involved and actively consulted when drafting this “significance test” as the consequences can be considerable.

10. Are the roles and responsibilities sufficiently addressed?

In our view the guideline would benefit from a stronger definition of the role of ACER and the national regulators of monitoring the application of the grid codes by the TSOs. In addition to the “cost-sharing principles”, regulators should assess for example all CBAs proposed by ENTSO-E or by TSOs and keep an eye on the interpretation of the “significant grid user” test.

The role of the TSOs and the DSOs could also benefit from a better definition of the respective responsibilities. Currently the guideline allows the TSOs to place considerable tasks on the DSOs with potentially high cost. As with new standards

placed on generation and load, all new requirements on DSOs should go through a CBA. TSOs should be in dialogue with the DSOs in the whole process.

In addition we would welcome a strengthening of the role of the market, as mentioned above.

11. Are the individual provisions under Scope & Objectives, Criteria, Methodology & Tools, Roles & Responsibilities, Information Exchange and Implementation Issues, associated to the particular topic, adequate? Should there be any additional elements?

The topics and the structure suggested are a good basis to start from. We would however suggest that the Criteria and the Information exchange sections under all topics are further elaborated.

**Criteria:** as mentioned above the FG should clearly require that all system operation requirements required from generation or load should be procured in a market based manner. This concerns especially ancillary services such as reactive power management, black start capacities and load frequency control. Where markets are not possible due to single seller/single buyer problems negotiated price solutions should be mandatory.

**Information exchange:** in our view the FG should state explicitly that only information necessary to contribute towards secure system operation should have to be provided from grid users to TSOs. Besides it should point out the interaction with other ongoing processes such as the work on the NC fundamental data transparency. Definitions and reporting requirements need to be consistent between the different FGs and NCs in order to avoid double reporting and increasing cost. The FG should also emphasize that any information requirement going beyond current standards must be justified by a sound CBA involving grid users from the beginning.

12. Could you foresee any other relevant New Applications which should be mentioned in these Framework Guidelines?

No comments.