

ERGEG  
fg\_pilot\_electricity@erggeg.org

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**Nordenergi response to the public consultation on ERGEG Pilot Framework Guidelines on Electricity Grid Connection**

Nordenergi, the joint collaboration between the Nordic associations for electricity producers, suppliers, and distributors, welcomes the opportunity to comment on “Pilot Framework Guidelines on Electricity Grid Connection” from ERGEG.

Question 1 to 9 for Consultation:

***General Issues***

1. *Are there additional major problem areas or further policy issues that should be addressed within the Grid Connection Framework Guideline?*

Nordenergi would recommend additional weight and emphasis to the issue of impact assessments and cost-benefit calculations, which is only briefly addressed in section 1.1 in connection with existing installations. In our opinion, it should be stated in the guideline that impact assessments and cost benefit calculations should be obligatory in a much broader number of cases for any network code, substantially revising or changing existing standards or especially introducing new ones. Standards should only be changed or newly introduced if a clear socioeconomic benefit can be demonstrated.

To ensure a broad discussion on the necessity and benefits of the potential changed standards, both the impact assessment and the cost benefit calculation (including the data) should be transparent and subject to consultation.

2. *What timescale is needed to implement provisions after the network code is adopted? Is 12 month appropriate or should it be shorter or longer?*

12 months is OK.

3. *Should harmonization of identified issues be across the EU or, perhaps as an interim, by synchronous area?*

The goal should be a harmonization across the EU to create a level playing field for investment. But it is important that the common European net code is kept in broad terms so that it is possible to take local conditions for example in synchronous areas into account when implementing the grid codes. Otherwise too strict rules would have to be implemented.

### **Grid User related aspects**

4. *Should the requirements apply to existing grid users? How should it be decided? To which existing users should the requirements apply? How should the timelines for transitional periods be set? Who should bear any cost of compliance?*

In general, requirements must be based on a trade-off between cost and ability to support the system. Furthermore, requirements must be based on the physical capability of the technology used and the cost of providing a certain service to the system.

Upgrading of existing installations connected to the grid can be very costly. Therefore existing installations should be exempt from new requirements as a general rule. However, if the relevant TSO decides, that an upgrade becomes necessary contrary to the general exemption rule due to system security, then it is the TSO or the grid owner who should carry the cost for the upgrade. The owner of the installation should not have to contribute, because he is not involved in the original decision and standard setting. Making the TSO or the grid owner pay, ensures the correct incentives for the TSO or the grid owner only to choose upgrades that are really essential for system security. In addition, it will ensure that they think economically and look for different solutions. If it is for example cheaper to procure ancillary services on the market, the TSO will choose to do so instead of upgrading the existing installation.

5. *The framework guideline identifies intermittent generation, distributed generation and responsive demand as requiring specific grid connection guidelines. Is it appropriate to target these different grid users? How should the requirements for the intermittent generation, distributed generation and responsive demand differ from the minimum requirements? Is there a need for a more detailed definition /differentiation of grid users?*

The guideline appropriately suggests specific grid connection guidelines for large scale intermittent generation, distributed generation, and responsive demand.

Intermittent and distributed generation can place some challenges on the grid. Therefore, the standards for intermittent and distributed generation should be close to the minimum requirements. Deviations from the standards should be possible to take into account technical feasibility and cost. A flexible solution could be to allow the generator the procurement of certain services such as delivery of primary reserves on the market instead of costly installations at the own generation unit.

Besides, it should be noted that for smaller generators factory test or type test can be more cost effective than on site commissioning test and therefore it should be considered if it should be allowed.

With regards to flexible demand it is complementary to intermittent generation and should be facilitated as much as possible.

6. *Is it necessary to be more specific regarding verification, compliance and reinforcement?*

No.

7. *What are the key benefits and types of cost (possibly with quantification from your view) of compliance with these requirements?*

The overall benefit is that general requirements will ensure equal terms for producers operating in the same market. This will increase system security and decrease overall cost for example with the inclusion of coming intermittent and distributed generation. It will also give easier investment decision concerning new installations, as industry needs to comply with just one standard.

It is very important that any new or substantially revised standard needs to demonstrate socio-economic benefits in order to justify the compliance cost for the TSO and for new installations.

8. *How should significant generation and consumption units be defined?*

In general Nordenergi finds that in grid code unnecessary restrictions to the connection process must be avoided. Therefore the grid code should be applied as binding only for higher voltage levels. Smaller units that will be connected e.g. to 20 kV or below have no direct influence on transmission system and could have only minimum requirements on EU-level – and room for national consideration. It is important that the grid code i.e. technical requirements for these smaller generation units are written from DSO's point of view and that:

- The grid code should be applied as binding only for higher voltage levels.
- The grid code must not be too strict and detailed - there must be room for national appliance by national authorities.
- There should be a minimum size for the generation unit where the grid code should be applied as binding.

Also all new consumption units should be gradually included as flexible demand is an important tool in managing intermittent generation. Exempting "insignificant" demand units would be contrary to the smart grid targets advocated here and in other documents. The specific requirements of small demand units could be met in the specific standards for responsible demand.

9. *For what real-time information is it essential to improve provisioning between grid users and system operators? Do you envisage any problems such as greater transparency? What are the costs (or types of costs) and benefits you would associate with this?*

Currently the challenge in the Nordic countries seems rather the information provided by the TSO on the grid usage. Whereas real time information on cross-border connections is available, although explanations for decisions taken are not always sufficient, real time information on the use of the internal grid within a price area is not available. Nevertheless, the use of the internal grid does affect prices and cross border capacities. Therefore more real time information including explanations on the use of the internal grid should be made available.

Concerning the cost of increased transparency for the generators much depends on the reporting schemes chosen. These should be ideally automatic, simple and standardized, double reporting must be avoided and generally the least bureaucratic possible.

**Other subjects**

In the scope of the guidelines, safety of personal is missing in the list of objectives in the evaluation criteria which must be taken into account of the Agency.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Lars Aagaard'.

Lars Aagaard, chairman of Nordenergi  
Danish Energy Association

On behalf of  
Juha Naukkarinen, Finnish Energy Industries  
Kjell Jansson, Swedenergy  
Hans Erik Horn, Energy Norway