ENTSO-E
Avenue de Corgenbergh 100
Ref.: "Consultation on ENTSO-E Work Programme 2014 through December 2015"
E-mail address: **info@entsoe.eu**
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BELGIQUE/BELGIE

Sent via email

28 August 2014

Dear Sir, Madam,

On behalf of Wärtsilä Corporation, we welcome the opportunity to provide a response to the ENTSO-E *Work Programme 2014 through December 2015*. As a major European technology provider, Wärtsilä has proactively participated in the EU energy policy debate with EU institutions in Brussels. Wärtsilä has worked with ACER and ENTSO-E in the network code development process and participated in the relevant consultations. Wärtsilä has been especially active in the debate regarding the development of the Internal Energy Market and 2030 Framework, and in particular issues related to the balancing challenges brought about by the increasing amount of intermittent renewables on the electricity system.

We support ENTSO-E's view that the increasing share of renewable energy sources raises new challenges for electricity systems. The EU decarbonisation and renewables agenda will lead in particular to a much greater level of intermittent generation on the system (i.e. wind and solar). Increasing the amount of intermittent renewable generation causes unpredictable fluctuations in the generation fleet output that need to be balanced. This challenge however can be effectively solved by installing flexible capacity into the system.

We believe that, in order to integrate significant volumes of renewable generation into the system, electricity market arrangements must appropriately reward flexibility such that the future value of this capability can be realistically and confidently predicted by potential investors. ENTSO-E has an important role to play in ensuring

that this flexibility is adequately rewarded and we are pleased to see these topics (amongst others) being addressed in the *Work Programme*.

We are keen to engage directly with you to further develop and support the framework necessary for the efficient provision of flexible solutions such as generation capacity. Attached to this letter is our formal response to the *Work Programme*.

We would welcome the opportunity to exchange views and further develop thinking in this critical area.

Yours sincerely,

Melle Kruisdijk
Director Market Development
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Attachment: Wärtsilä response to consultation on "ENTSO-E Work Programme 2014 through December 2015"

In our response, we have referred to the sections of the ENTSO-E documents for which our comments apply.

3. General Description of the Work Programme

Key point

- Implementation of third package and network codes remains of high importance

We consider it important that all ongoing and possible future developments are considered holistically and unintended policy consequences minimised. In addition, the challenges that electricity markets face raise strategic questions around the long-term role of the market and trading arrangements to deliver security of supply, and low-carbon and affordable energy. The *Work Programme* therefore should aim at drawing a high level, longer term picture for the market, to promote greater investor confidence by identifying "no regrets" policies, path dependencies and ensuring adaptability of arrangements in the face of change.

As we consider the implementation of the Third Package of key importance, focus on the implementation of the associated framework guidelines and network codes and related legislation remains of high importance after 2014 as they underpin a future single energy market. We therefore agree with the importance given to the network codes in the *Work Programme* through a separate section dedicated to the network codes.

4. Network Codes Development and Implementation

Key point

- Open and transparent communication process towards stakeholders on network code development and implementation process

Even though the IEM is planned to be fully implemented by 2014, the full roll-out of all codes will require an additional number of years. During this roll-out process, we expect that fine-tuning of elements of the codes will be implemented, also based on the learning of the pilot projects.

During the further development and implementation phase of the network codes, we encourage ENTSO-E to continue an open and transparent communication and cooperation process with all stakeholders through workshops, consultations and other interaction possibilities most suitable for the specific phase of development and implementation of the network codes and whenever within the possibilities of ENTSO-E.

We support the idea to create a stakeholder forum during the implementation phase because we believe it could prove useful in the full and swift implementation of the network codes. However, to be successful, such forum should be fully transparent, represent the complete industry affected by the network codes and be open to receive contributions and viewpoints from non-forum members.

6. System Development Activities

Key points

- Electricity market reform is required to signal the value of flexibility
- Implementation of the network codes are key to enable integration and reform of electricity markets across Europe and provide stronger market signals for flexibility

System Adequacy Reports

Under these activities, we especially look forward to the proposed adjustments of the Generation Adequacy reporting, currently under development. Wärtsilä is preparing a full response to the consultation and is keen on seeing more focus on the challenges brought upon the electricity system by integrating large amounts of renewable energy sources. We strongly believe that electricity markets should be reformed to provide price signals that reward flexibility, in order to make best use of flexibility available in the market but not utilized, and to attract new investments into flexible solutions such as flexible power generation, demand side response and

storage technologies. We have provided more detailed inputs to market design features concerning this topic in our comments to section 8 of the *Work Programme* document.

e-Highway2050 Project

The implementation of the network codes will enable integration and reform of electricity markets across Europe and provide stronger market signals for flexibility (through the Electricity Balancing Network Code). Though still under development, other initiatives (such as described in the "market design" section of your document) are expected to strengthen these signals further. We therefore expect an increasing value for flexibility across the integrated electricity system.

The increased value for flexibility is expected to attract investments in flexibility solutions. In its opinion on the appropriate range of transmission charges paid by electricity producers, also referred to in your document, ACER states that "*Different levels of power-based G-charges (€/MW) or of lump-sum G-charges, as long as they reflect the costs of providing transmission infrastructure services to generators, can be used to give appropriate and harmonised locational signals for efficient investments in generation...".* Such locational signals, combined with increased value for flexibility, can impact the location of new investments in flexible solutions and influence the development needs of the pan-European grid. Therefore, we encourage to take these developments into account in the assumptions and calculations for electricity generation until 2050 in the e-Highway Project

8. Market Activities

Key points

- Follow a transparent and pro-active communication and involvement process to all stakeholders
- The future electricity market design should
    - Have the right balancing products,
    - Follow cost reflective pricing and imbalance charges,
    - Enable new market based instruments to attract investments, and
    - Achieve a level playing field for all technologies

Objectives

We welcome the objectives of the market activities as summarized in the document (follow-up of the network codes, focus on implementation of the codes, develop positions on market-design related topics) and encourage ENTSO-E to follow a transparent and pro-active communication and involvement process with regard to these topics to all stakeholders, through consultation processes, stakeholders workshops and other forms of communication and involvement.

Electricity balancing pilot projects

The creation of pilot projects to gain experience towards a single European balancing market and to create awareness of the potential barriers is an important initiative which can support the implementation of the network codes. Wärtsilä supports this initiative and has commissioned DNV GL to investigate following two research questions in relation to balancing product design:

1. *What should be the properties and specifications for balancing products for frequency restoration reserves in a system with a high degree of renewable energy sources that provide adequate frequency quality for the Continental European synchronous power system?*

2. *How does a selection of properties and specifications for balancing products as mentioned above influence the total system costs?*

The report was finalized in May 2014 and concludes that

- Increasing speed (shortening activation period) improves system response for fast disturbances (if the AGC is adapted adequately).
- Under Pro-rata activation regime, speed and capacity can be exchanged once sufficient capacity is available.
- Non-spinning reserves can replace spinning reserves without deteriorating system response (if the AGC is adapted adequately).

And additionally

- Allowing cross-border sharing of reserve capacity reduces system costs.
- Under Pro-rata activation regime, once sufficient capacity is available, it is more cost effective to improve system response by increasing speed (instead of capacity).

We have reported on the study findings at the recent Powergen Europe conference in Cologne and forwarded the full study to the European stakeholder group. We intend to continue to work closely together with ENTSOE on the further development of the balancing product design and look forward to share our study findings in more detail with the European stakeholder group.

Market Design & 2030 framework and RES integration

We welcome the intention of ENTSO-E to deepen its analysis on market design. We recognise that resource adequacy is clearly high on the agenda in some member states. In our view, while a capacity mechanism may increase the capacity margin and reduce risks to security of supply, it is unlikely to deliver the required market flexibility at least cost to consumers and we therefore also do not consider it as a market route for flexibility.

The requirement for market flexibility is expected to increase dramatically in line with the increased non-programmable RES technologies in the European capacity mix. The market design focus should therefore be towards market based arrangements that accommodate the growing share of RES based generation. We expect that operational flexibility (e.g. primary, secondary reserves) will be predominantly met by reserve arrangements. Given the need to maximise renewable output, there could be a significant role for 'standby' plants to provide balancing energy, displacing to some extent the need for secondary reserve from spinning reserve plants. There are a number of possible market based mechanisms that could be used to facilitate market flexibility, ranging from reserve and balancing markets through to spot and intra-day markets. It is important that the market arrangements allow for the true value of flexibility to be revealed across all timeframes.

The implementation of the Electricity Balancing Network Code with marginal pricing for balancing energy and cost reflectivity in imbalance charges are expected to incentivize market participants to self-balance to avoid imbalance charges and increase trading of electricity close to gate closure. In addition to avoiding imbalance charges, market participants are also expected to look at longer term possibilities to manage imbalance risk. The demand for tools to manage imbalance risk is expected to increase. Simultaneous development of sharper price signals in the balancing market and tools manage imbalance charge risk is therefore required. Simultaneous development avoids a situation where sharper price signals for flexibility cannot be introduced because risk management tools are missing, and at the same time these tools do not develop because there is no need due to dampened price signals from current balancing arrangements.

With regards to trading arrangements and creating a system that is fit-for-purpose, we suggest ENTSO-E to take-up in its market design thinking further development of market based tools to manage imbalance risks. This can be done for example through enabling financial contracts between flexibility providers and market players willing to hedge risks. Such arrangements would also signal the longer term value of flexibility to the market, which will improve the business case for investments in flexibility (on supply side as well as demand side).

To encourage competition, we emphasize the need to design technology-neutral market arrangements for all sources of flexibility, and to consider the appropriateness of wholesale electricity market arrangements to ensure sufficient short-term liquidity and flexibility as well as providing for efficient long-run investment signals. We encourage the development of a broad market for flexibility and avoid market fragmentation (e.g. separate markets for demand response resources) by removing barriers for market entry of new resources.