

## Appendix 1 - ENTSO-E 2014-2015 Work Programme - Treatment of Responders' Submissions

This note contains a summary of remarks received and indications on how they have been taken into consideration in the version of the Work Programme 2014-2015 as submitted to ACER.

Chapter	Stakeholder comments, categorised by Work Programme section reference	Stakeholder	ENTSO-E assessment and treatment of responders' submissions
1	<b>Executive Summary</b>		
2	<b>Strategic Planning</b> <p>Specifically, we fear that some of the activities listed in your Work Programme may distract ENTSO---E from discharging its duties under the Third Energy Package in an efficient manner without interference of individual TSO interests going against ENTSO---E's efforts to build the internal energy market. ENTSO-E should be fully dedicated to its core roles and responsibilities of ensuring <i>optimal management of the electricity transmission network and to allow trading and supplying electricity across borders in the Community</i>.</p> <p>We see the current governance structure of ENTSO-E as an impediment to fully carrying out this regulatory mandate, as illustrated in the case of network code drafting where the consensus efforts at the ENTSO-E General Meeting prevented in our view the advancement of ambitious market rules for the internal electricity market. We would therefore advise the Board of ENTSO-E to consider the possibility of an organisational split:</p> <ul style="list-style-type: none"> <li>A separate body – the “statutory institution” – with a simpler decision-making process, not requiring the approval of every European TSO at its AGM; it would carry out the regulatory mandate of EC Regulation 714/2009, such as the drafting and adaptation of network codes and TYNDPs;</li> </ul>	EFET	<p>Reference to “AGM” is not correct, in fact decisions of the Association are taken at Assembly level which convenes at least four times per year.</p> <p>ENTSO-E Secretariat has implemented a structured approach to manage and optimise all its resources including time reporting for all activities. The amount of resources directly attributed to our legally mandated tasks is the majority part of our resources spent within the Secretariat.</p> <p>ENTSO-E does not share the view that its governance structure hinders an efficient delivery of its legal mandates. More specifically, ENTSO-E decision making rules do not require unanimity: the Assembly aims to achieve unanimity but in case unanimity is not achieved, the decision to adopt a network code can be approved by a special majority which requires approval by Members representing at least 72% and 65% of, respectively the First and Second part of the voting power – knowing that the first part of the voting power is based in the principle of one country, one vote and the second is based on the population of the country).</p> <p>ENTSO-E embraces indeed tasks coming from legal mandates and other tasks, not specifically named in the Third Package but closely related and complementary to the reinforced TSOs cooperation expected by the Third</p>

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2	<ul style="list-style-type: none"> <li>The existing ENTSO---E structure used as an association supporting grid management functions and other standard business activities of TSOs; its decision-making process is already closer to that of a trade body.</li> </ul> <p>This organisational split would allow discretionary objectives supporting TSOs' standard business activities to be handled in a transparent manner via separate channels from the regulatory mandate. In particular, we believe that the following elements laid out in the ENTSO--- E Work Programme are not linked to the EC Regulation mandate:</p> <ul style="list-style-type: none"> <li>policy development (page 4), insofar as it does not relate to carrying out the objectives framed in the legislation and set by the European Commission and ACER, it falls outside the scope of the organisation's regulatory mandate</li> <li>increasing visibility (page 4) is clearly an advocacy function unrelated to the regulatory mandate</li> <li>projects such as the eHighway2050 Project or the ENTSO-E Academy are purely discretionary activities</li> </ul>		<p>Package. We therefore consider that the tasks identified in the WP are in line with the legal missions given to ENTSO-E.</p> <p>For example, the ENTSO-E Academy is a tool to exchange and share knowledge and therefore reinforce the cooperation between TSOs on issues such as common network operation tools, coordination of network operation and the eHighways project aimed at ensuring knowledge dissemination and transfer of scientific research into TYNDP.</p>
3	<p><b>General Description of the Work Programme</b></p> <p>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 <i>Work Programme</i> 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.</p>	Wärtsilä Corporation	<p>ENTSO-E has been developing its thinking on the subject of long-term market design and will publish a policy paper on the subject in Q3-4 2014. The paper will outline guiding principles for electricity market design. Furthermore, ENTSO-E will continue developing the principles outlined in this paper through H2 2014 and 2015 within a newly established Working Group on Market Design and Renewables.</p>

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	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 <i>Work Programme</i> through a separate section dedicated to the network codes.		
<b>4</b>	<p><b>Network Codes Development and Implementation</b></p> <p>System studies should constitute the basis for network codes in their formulation of requirements not only for wind power, but for all generators. EWEA notes that ENTSO-E in does not use clear analyses or system studies as justifications in the requirements laid out in the current drafts of Network Codes.</p> <p>Such studies and their application in the grid codes should, for instance, consider frequency support needs and voltage needs at the appropriate system level to identify what cross-border needs are as opposed to localised. The use of the results of system studies in network codes and subsequent national grid codes should be coordinated between TSOs and DSOs, as a significant part of wind power generation is connected to the mid- and low-voltage network.</p> <p>These system studies would significantly contribute to any future “implementation guidelines” for Network Codes facilitating the appropriate application of Network Codes in national grid codes.</p> <p>EWEA, therefore, calls for ENTSO-E to outline more clearly which and in what timeframe studies are to be carried out in this regard, for instance in the system operations activity plan.</p> <p>We do not see any inconsistencies between ENTSO-E's activities regarding the network codes and the Commission's priority list 2015, and these activities are also in line with ACER's work programme 2015.</p>	<p>EWEA</p> <p>EURELECTRIC/E DSO4SG/CEDEC/ GEODE</p>	<p>It is conceivable that system studies will become a relevant element in the context of network code implementation and amendment. ENTSO-E will refine the network code implementation plan upon network code adoption. ENTSO-E's interaction with stakeholders will be part of the overall engagement for network code implementation and amendment. Research studies can facilitate mutual understanding of system needs and technical capabilities. Given the unclear timeline for implementation, it is not possible to provide precise timings and contents for these activities in the annual work programme and no change is offered in the text.</p> <p>ENTSO-E treasures contributions from all stakeholders to the development process of network codes. The sound working relationship with the European industry and consumers will need to be taken even further for the next steps of the codes life cycle: implementation and revision.</p>

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4	<p>Regarding network code development, we acknowledge that over the past years, the drafting process has gradually improved, resulting in a good working climate and cooperation between the ENTSO-E drafting teams and DSO experts. Still, there is a need to further improve the process for drafting high quality codes and better integrating stakeholder considerations. Specifically, when initiating a new code, we encourage ENTSO-E to:</p> <ul style="list-style-type: none"> <li>• Ensure the consistency of the new draft codes with previous codes (e.g. use of similar definitions, no overlaps or contradictions, etc.).</li> <li>• Allow a reasonable amount of time for stakeholders to read and analyse the code before stakeholder workshops are held.</li> <li>• Perform cost benefit analyses for all new requirements having a significant impact on Distribution System Operators (DSOs) and grid users; this analysis being fundamental it should be performed during the drafting phase of the codes.</li> <li>• Organise discussions and exchange views on key stakeholder concerns when modifications to the code are still possible (e.g. before approval by the ENTSO-E board of directors).</li> </ul> <p>With regards to the codes approval, we can only confirm the uncertainties regarding timing, all depends on the outcome of the Comitology process. More clarity (and transparency) in the Comitology process would be very useful for stakeholders, but it is in our opinion absolutely needed for ENTSO-E to have a solid and coherent work programme. ENTSO-E should therefore ask more explicitly for urgent input on these matters from the Commission.</p> <p>We agree with ENTSO-E's focus on the network codes implementation in 2015, since it is to be expected that several network codes will enter into force that year. Regarding the implementation ENTSO-E states that it will require significant volumes of TSO resources. We would like to add that this is equally true for DSOs (and probably for other stakeholders), since they are also heavily impacted, especially by the implementation of the network codes on requirements for generators and on demand connection.</p>		<p>ENTSO-E agrees with the need to circulate texts and hold discussion with stakeholders at a practical time. Texts will be circulated in advance of any network code related event, and stakeholders will be informed of the timeframe within which their comments can still be reflected in text changes. In particular, the draft version of the network code on Emergency and Restoration will be circulated one month before the public workshop of 12 November. The work program will be amended to better reflect this commitment.</p> <p>It is conceivable, that system studies will become a relevant element in the context of network code implementation and amendment. ENTSO-E will refine the network code implementation plan upon network code adoption. ENTSO-E's interaction with stakeholders will be part of the overall engagement for network code implementation and amendment. Research studies can facilitate mutual understanding of system needs and technical capabilities. Given the unclear timeline for implementation, it is not possible to provide precise timings and contents for these activities in the annual work programme and no change is offered in the text.</p> <p>The work programme will also be amended to better reflect the impact on DSOs and other stakeholders' resources that the implementation programme will create.</p> <p>ENTSO-E agrees with the suggestion to set up as soon as possible formal perennial stakeholders group for network codes implementation. In October 2014, ENTSO-E will start a public consultation to gather the views of the industry and European consumers on the best way to work together during this period.</p> <p>ENTSO-E agrees with the need for stakeholder committees to be established as soon as possible and welcomes the support for this earlier</p>

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4	<p>We welcome ENTSO-E's intention of sharing information on national implementations. The DSO organisations support ENTSO-E's idea on establishing a formalised structure to discuss issues relating to network codes development and implementation. Where 'permanent stakeholder forum' is mentioned in the draft programme, we suppose ENTSO-E is referring to the Stakeholders Committees, as described and proposed by the Commission in the latest versions of the network codes on requirements for generators and on demand connection.</p> <p>The number of Committees is still to be determined, but should be restricted to a few, since this structure needs to be flexible and easily manageable.</p> <p>We think it is important to put this structure of 'Stakeholder Committees' in place as soon as possible to shorten the learning curve for the involved stakeholders once the regulation enters into force and support the early implementations of (parts of) the network codes.</p> <p>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.</p> <p>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.</p> <p>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</p>	Wärtsilä Corporation	<p>adoption. This matter is now subject to decision making in Comitology and it is difficult to predict the final form of the committee structure.</p> <p>ENTSO-E treasures contributions from all stakeholders to the development process of network codes. The sound working relationship with the European industry and consumers will need to be taken even further for the next steps of the codes life cycle: implementation and revision.</p> <p>ENTSO-E agrees with the suggestion to set up as soon as possible formal perennial stakeholders group for network codes implementation. In October 2014, ENTSO-E will start a public consultation to gather the views of the industry and European consumers on the best way to work together during this period.</p>

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4	<p>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.</p> <p>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.</p> <p>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.</p>	Wärtsilä Corporation	<p>ENTSO-E is aware of the key role of flexibility in attracting investments in T&amp;G infrastructure and supports considering flexible solutions to face the development needs of the future pan-European transmission grid up to 2050.</p> <p>ENTSO-E is in favour and encourages taking into account investments in flexible solutions for future grid developments. The Rationale for building the e-Highway2050 scenarios takes into consideration these developments. Five “extreme but realistic” scenarios have been defined during the first year of the project.</p> <p>The key dimensions of the five selected scenarios in the e-Highway2050 Project are demand and generation, including the assumptions and calculations for electricity generation until 2050.</p> <p>The building of energy scenarios is involving the foreseen generation and demand profiles, while taking into account storage, demand-side management and transmission technologies available by 2050.</p>
5	<p><b>Research &amp; Development Activities</b></p> <p>We would also caution ENTSO-E against uncoordinated and isolated efforts on standardisation (page 10) if such efforts would include market-facing data, especially regulated energy trading data reporting. As you know, we are supporting European IT standardisation, especially for nominations. Standardisation of market-facing data and data exchange has been at the core of EFET activities since its foundation in 1999, and several (open) standards</p>	EFET	<p>Data formats and standards for regulatory reporting purposes under REMIT and EMIR will be defined in the implementing acts based on ACER recommendations. Standardisation work on market related information exchanges is relevant to ENTSO-E's Working Electronic Data Interchange under the Market Committee. The group, apart from a liaison at international level with the IEC's TC 57 WG 16 on deregulated market communications,</p>



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5	<p>developed by EFET have been widely adopted by the energy trading industry. These standards are continuously updated to comply with European legislation such as REMIT or EMIR. Redesigning those existing standards would likely be a burdensome and time-consuming task for ENTSO-E and would lead to high adaptation costs for market participants. Such a task, not mandated by legislation and not necessary due to the existing standards, should not be included in the work of ENTSO-E as it currently stands, or of the "statutory institution" proposed above. The extension of European-wide standards, used for regulatory reporting and post-trade event processes however, to include such nomination processes, could be a "natural next step" for the open standard "Commodity product Markup Language" (CpML).</p> <p>The associations recognise the importance of ENTSO-E's work regarding standardisation and in particular the link with the network codes.</p> <p>We would like ENTSO-E to inform stakeholders in a transparent way on a regular basis (or via a dedicated section on its website) of the developments of the common work with CEN/CENELEC on standards regarding the requirements in the network codes.</p> <p>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</p>	<p>EURELECTRIC/E DSO4SG/CEDEC/ GEODE</p> <p>Wärtsilä Corporation</p>	<p>has established a liaison with EFET, and its representatives are invited and attend the group's meetings. Hence, we invite EFET to bring their requirements and their concerns, for discussion in that group.</p> <p>ENTSO-E acknowledges the suggestion to have more information on the common work with CEN/CENELEC regarding standardisation. Standardisation is an industry responsibility and ENTSO-E looks forward to further cooperation with this community to ensure progress is shared and understood by all. The exact nature of information sharing will be considered by ENTSO-E's Research and Development Committee.</p> <p>ENTSO-E's response to these comments is provided in section 8.</p>

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	more detailed inputs to market design features concerning this topic in our comments to section 8 of the <i>Work Programme</i> document.		
<b>6</b>	<p><b>System Development Activities</b></p> <p>EWEA notes that the draft ENTSO-E work programme only briefly outlines the need to tackle regulatory and financial barriers to making infrastructure investments. However, in view of the difficulties for TSOs to raise equity, in particular for higher-risk projects, such as offshore grid connections, further activities by ENTSO-E in this regard should be considered.</p> <p>A review of the Europe 2020 Project Bond Initiative needs to be carried out and improvements proposed to revive and expand capital markets to finance cross-border relevant grid projects.</p> <p>The draft work programme rightly points out in section 6 that the methodologies for both the 10-year network development plan (TYNDP) and system adequacy and generation outlook (SOAF) documents are bound to evolve. In this context it is important to properly analyse wind energy's contribution to guaranteed capacity at peak load.</p> <p>Many TSOs place RES (wind and solar above all) in the "non-usable capacity" category in the SOAF. The amount of firm power provided by wind energy is, therefore, not properly taken into account.</p> <p>To properly evaluate the contribution of wind power to system adequacy ENTSO-E should develop and utilise a harmonised method for wind power capacity credit assessment in European generation adequacy forecast and the TYNDP.</p>	<p>EWEA</p> <p>EWEA</p>	<p>Following the ACER recommendation on incentives for projects of common interest and on a common methodology for risk evaluation and the possible guidelines to be issued by the EC (according to TEN-E regulation), ENTSO-E works closely with its members and institutions on an appropriate regulatory framework for higher risk projects to solve possible financeability problem (equity and debt).</p> <p>In the national assessment of seasonal system adequacy, TSOs provide their own best estimate of RES (wind and solar) capacity factors. This information is represented as "non-usable capacity". It is recognized that this leads to a non-harmonized approach, since capacity factors reported by TSOs are often calculated &amp; derived using different methods. In order to ensure a harmonized method, capacity factors for RES (Wind and Solar) from ENTSO-E Pan European Climate Database (PECD) are used in the Pan-European regional assessment of Adequacy.</p> <p>Due to developments in the energy generation mix, with more fluctuating renewables and less conventional fossil generation, the need for a more sophisticated assessment is necessary. In this sense, ENTSO-E has published a Target Methodology for Adequacy Assessment which is currently under consultation.</p> <p>With an increase of renewables in the system the most critical situations in the future may occur at times other than at peak demand. For instance, when</p>



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6			<p>the load is low and the in-feed of renewables is high. In addition to the assessment of whether generation meets demand, downward regulation and the need for more flexibility in the system is a focal point for ENTSO-E.</p> <p>In this respect, the ENTSO-E target methodology proposes to improve the adequacy methodology using probabilistic assessment methods to identify how often the system is not balanced or when availability of ancillary services might be affected. These changes are mostly caused by the actual hour-on-hour evolution of the climate situation and also by forecast errors in the planning processes.</p> <p>The future ENTSO-E adequacy studies will therefore be integrated with appropriate market simulations. In this context, wind power capacity credits will be properly assessed by the analysis of several indicators for adequacy evaluation, including: the Loss of Load Expectancy (LOLE), the Loss of Load Probability (LOLP), and the Effective Load Carrying Capability (ELCC).</p>
7	<p><b>System Operations Activities</b></p> <p>EWEA welcomes ENTSO-E's objective to further develop the framework for TSO coordination and facilitate the cooperation between Regional Security Coordination Initiatives (RSCIs). However, further measures should be taken to enhance cooperation between TSOs across Europe. What is missing are improved coordination strategies facilitated by regional and subsequently European system operation facilities, modelled on existing regional best practise, for example CORESO.</p> <p>Such facilities have a proven track record with regards to their contribution to cross-border electricity markets by load-flow control to alleviate loop-flows and increase interconnection capacities as well as optimising the utilisation of the existing infrastructure and transmission corridors through, for instance, dynamic line rating.</p>	EWEA	<p>As written in the work programme, the TSO coordination framework will be developed further; ENTSO-E is preparing a framework based on the network codes that will facilitate the inter-RSCI coordination striking a balance between a centralized approach and the need for flexibility (considering the underlying different system conditions across Europe).</p> <p>Regarding dynamic line rating: several TSOs already use this method in some areas. ENTSO-E has started investigating the use of this method to enhance the cross-border electricity markets. In addition following the EWEA suggestion a new task has been added in the Coordinated System Operations AWP.</p>

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7	<p>The current work programme should consider developing such facilities with common network operation tools to ensure coordination of network operation in normal and emergency conditions, provision of network information day ahead, intraday and real-time, and all other measures to increase operational coordination between TSOs.</p> <p>TSO-DSO cooperation is not directly addressed in the work programme, however we believe that several topics call for further cooperation and joint discussions. We agree with ENTSO-E that the integration of variable renewable energy sources (RES) is a key challenge for grid operators and that smart grids will be essential to delivering a high-quality energy supply to consumers.</p> <p>As stressed on page 29, the new 2030 climate and energy framework will impact network planning, network operation and will require great efforts from all network operators.</p> <p>In spite of this shared understanding of network operators' challenges, "smart grids" are referred to without mentioning of DSOs. Likewise, RES integration is highlighted without mentioning that the vast majority of new generators are being connected at distribution level. Furthermore, the work programme stresses the need to increase the "observability of generators" (page 19). While DSOs associations support this statement, there are concerns with TSOs seeking direct visibility of all generators, including those connected to distribution networks. We believe that all data from consumers or generators connected to distribution networks should be gathered and managed by the DSOs who, in turn, should provide the TSO with all the data needed to operate the transmission grid.</p> <p>In a similar way, the creation of a Continental Europe dynamic model (page 17) should directly involve DSOs. One of the main objectives of developing such a model is to study the impact of distributed energy generation (DG) on the dynamic behaviour of the European power system. As DGs are connected to</p>	EURELECTRIC/E DSO4SG/CEDEC/ GEODE	<p>Data exchange issues will be part of the network code implementation; ENTSO-E will analyse the relevant issues further and discuss with the Stakeholders the possible solutions/approaches.</p> <p>The Annual Work Programme has been amended on page 3 to better reflect the close cooperation with DSOs required to address the challenge of RES integration and development of smart grids.</p> <p>Regarding the CE dynamic model a good interface has been created with DSOs in the 2020 data collection setup, e.g. reflection of all injection points sorted out by different energy sources. For the way how to apply the model</p>

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7	<p>distribution networks, and as data from both DGs and distribution network operators is needed to develop the European model and perform different studies, DSOs should be involved in such an approach.</p> <p>In particular, ENTSO-E should:</p> <ul style="list-style-type: none"> <li>• assess the assumptions made with DSOs;</li> <li>• share with stakeholders the results of the study as it will affect them (DSOs for automatic load shedding, DSOs and generators for interface protection, etc.).</li> </ul> <p>Strong cooperation between all grid operators: TSOs and DSOs - is the only way to modernise Europe's grids in a cost-efficient way, while maintaining quality of service and security of supply to all customers. DSO-TSO boundaries, direct monitoring and control of grid users on DSO networks are on-going issues of contention in the drafted network codes and it is quite urgent that these be resolved. Therefore, a specific work item related to coordination between TSOs and DSOs should be added to the work programme.</p>		<p>for the different kind of studies ENTSO-E will offer assessment on the different limitations the model has.</p> <p>ENTSO-E has for H2 2014 committed to developing its thinking on all aspects of the TSO-DSO interface with the aim of strengthening coordination and cooperation with DSOs on all key issues of mutual interest. The work programme has been amended on page 29 to reflect this.</p>
8	<p><b>Market Activities</b></p> <p>More activities on an improved market design with large scale wind power integration, in particular on grid support services markets.</p> <p>EWEA would like to emphasise the need for further work on long-term market developments as outlined in the draft work programme in section 8. ENTSO-E's activities in this area such as on electricity balancing pilot projects are welcome.</p> <p>However, what is needed, in particular, is work on future ancillary services or grid support services market arrangements on top of the ongoing implementation of the EU-wide Target Model.</p> <p>In the mid- to long-term new market forms for such grid support services will be indispensable. Such markets will provide an additional source of income for</p>	EWEA	<p>Work on future ancillary services and grid support services market arrangements on top of the ongoing implementation of the target model has been started in the Working Group RES and Ad hoc Group Long Term Market Design and will be continued in the Working Group Long Term Market Design and RES under the Market Committee. During this work ENTSO-E will appreciate stakeholder contributions, e.g. on the consultation of balancing standard products.</p>

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8	<p>all generators, including renewables, without creating additional market distortions (for example from capacity mechanisms).</p> <p>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.</p> <p>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:</p> <ol style="list-style-type: none"> <li>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?</li> <li>2. How does a selection of properties and specifications for balancing products as mentioned above influence the total system costs?</li> </ol> <p>The report was finalized in May 2014 and concludes that</p> <ul style="list-style-type: none"> <li>• Increasing speed (shortening activation period) improves system response for fast disturbances (if the AGC is adapted adequately).</li> <li>• Under Pro-rata activation regime, speed and capacity can be exchanged once sufficient capacity is available.</li> <li>• Non-spinning reserves can replace spinning reserves without deteriorating system response (if the AGC is adapted adequately).</li> </ul>	Wärtsilä Corporation	ENTSO-E welcomes stakeholder activities and contributions to support the development of balancing products. ENTSO-E is currently developing a draft set of standard products, which will be up for stakeholder consultation beginning of next year where we appreciate your input.
		Wärtsilä Corporation	Work on market flexibility has been started in the Working Group RES and Ad hoc Group Long Term Market Design and will be continued in the Working Group Long Term Market Design and RES under the Market Committee. ENTSO-E agrees that the demand for tools managing imbalance risks may increase. Therefore work on the functionality of these tools, on their way of implementation and their cross border tradability is needed. ENTSO-E will be inviting stakeholders for an exchange on positions on these Long Term Market Design issues.

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8	<p>And additionally</p> <ul style="list-style-type: none"> <li>• Allowing cross-border sharing of reserve capacity reduces system costs.</li> <li>• 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).</li> </ul> <p>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.</p> <p>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.</p> <p>The requirement for market flexibility is expected to increase dramatically in line with the increased nonprogrammable 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</p>	Wärtsilä Corporation	<p>The comments on this section are noted and will be reflected in the foreseen deepened analysis on various elements of market design, initially based on 2014 work. Given the level of topical detail, no amendment is made to the annual work programme.</p>

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	<p>intra-day markets. It is important that the market arrangements allow for the true value of flexibility to be revealed across all timeframes.</p> <p>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.</p> <p>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).</p> <p>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.</p>		<p>At a recent meeting with Wärtsilä Corporation ENTSO-E discussed these views presented here and while no change to the annual work programme is required the detailed technical challenges in designing the detailed arrangements to be put in place and tools required is recognised as an important part of the development process.</p> <p>No change in the Annual Work Programme is envisaged however ENTSO-E recognises the need to develop further the market design proposals and to create a range of tools to manage imbalance with tools and products that meet the system needs and which can be provided by the market.</p>



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<b>9</b>	<b>Legal &amp; Regulatory Group Activities</b>	No comment	
<b>10</b>	<b>General Activities</b>	No comment	
<b>11</b>	<b>Conclusion</b>	No comment	