# Appendix 1 - ENTSO-E Annual Work Programme 2017 - 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 Annual Work Programme 2017 as submitted to ACER.

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| **Is the information of the Annual Work Programme 2017 detailed enough?<br>Please elaborate should you wish, on specific topic(s) of Annual Work Programme 2017 as per your choice above.** | | |
| Key deliverables are well detailed but there is no clear information on the "proactive contributions to policy and the new EC legislative initiatives" mentioned in the executive summary. In particular, ENTSO-E raises the issue of lacking resources but it has multiplied position papers over the last year. Further details would be needed on the number, scope and objectives of such policy statements, e.g. position paper on the role and governance of power exchanges (what is the scope?).<br>More clarity and details would be welcomed as regards to the work stream retrofit of dispersed generation. | *Confidential* | ENTSO-E believes that pro-active policy positions are part of ENTSO-Es tasks. Why? TSOs, as neutral market facilitators, need to share their aggregated view on the development of the European energy market, and the changing power system at large. This indeed requires strong stakeholder interaction, or co-creation. Policy papers have to be seen as a contribution to a well informed and transparent debate ahead of the IEM.ENTSO-E has increased its interaction with Stakeholders in the last years, well beyond Network Codes.<br><br>Is ENTSO-E really co-creating, exchanging in new ways with stakeholders? The answer is yes. Examples of such interactions is the TSO-DSO platform, our independent Advisory Council, the publication of the minutes of our Assembly meetings, common positions with SEDC or EURELECTRIC as well as events related to regions, like the Regional Conferences, reaching out to government, NGO, regulators.<br><br>As a result, our policy statements are largely building on interactions with other stakeholders. It is the ambition of ENTSO-E to develop this further, and to ensure that policy |

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| | | statements integrate and reflect the contributions through the consultations<br>With our stakeholders. The ambition remains to develop this further through the successful TSO-DSO platform's interaction with third parties from the Market<br><br>The number and objectives of such 2017 policy interventions is premature to announce before the new EC proposals on market design, however the scope remains aligned to our main strategic objectives reflected in our vision paper; integration of IEM, enhancement of regional cooperation, facilitate the integration of renewables aligned to our sustainability targets, preserve the very high levels of system reliability enjoyed by the European customer. |
| **Any comments regarding strategic planning?** | | |
| WindEurope would appreciate more details on the scope and objectives of the upcoming paper on the role and governance of power exchanges. | *Confidential* | Link to the published position paper on PX Governance has been added in the AWP2017<br>***https://www.entsoe.eu/publications/position-papers/position-papers-archive/Pages/Position%20Papers/Governance-of-the-market-coupling-operation-functions.aspx*** |
| **Any comments regarding the network codes implementation activities?** | | |
| The national implementation phase process should involve all relevant parties: system operators, manufacturers, plants developers, certification bodies etc.<br>Regarding the implementation of RfG NC, the creation of platforms for cooperation in Germany or in the UK should be put forward as examples to follow.<br>We could observe that most Implementation Guidance Document (IGD) for this code lack the technical details to support the | *Confidential* | ENTSO-E agrees that early involvement of the stakeholders in the national implementation process is very important. In this sense ENTSO-E will strengthen this message in the updated IGDs. With regard to the lack of technical details in the IGDs ENTSO-E would like to remind that legally the IGDs are not to meant to:<br>• define the parameters of non-exhaustive requirements. |

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| implementation of the non-exhaustive parameters. Such documents would benefit from clarified wording. They should also address the latest comments provided by the industry in order to support the national implementation of those codes.<br>Last but not least, the different European Stakeholders Committees should be led and coordinated by a neutral party. Such functioning could be extended to the Stakeholders Committee for the Ten Year Network Development Plan (TYNDP). | | • prejudge the national decisions nor lifting national decisions to a European level<br>• ensure harmonized rules throughout the EU<br><br>With regards to the Network Development Stakeholder Group (NDSG) this is a platform initiated by ENTSO-E since November 2012 (no legal mandate is attached to it) and it aims at supporting the mutual exchange of experience and information on grid development between ENTSO-E and interested stakeholders. As such having ENTSO-E chairing these meetings therefore we do not see any. |
| **Any comments regarding network development activities?** | | |
| **Any comments regarding the activities towards a single electricity market?** | | |
| WindEurope welcomes the ongoing work of the TSO-DSO cooperation platform but would appreciate more feedback and transparency on possible outcomes.<br>Should market architectures be discussed in this forum, market participants should be associated at some point. | *Confidential* | ENTSO-E foresees to increase stakeholder interaction both for ENTSO-E internal work on TSO-DSO issues and for future common activities with DSO associations via bilateral meetings and workshops. |
| **Any comments regarding the activities for connecting with neighbouring regions?** | | |
| **Any comments regarding stakeholder engagement?** | | |
| The document demonstrates a clear willingness to better engage with stakeholders on most topics, and this should be recognized. However, it lacks details on how this would be achieved as relates to adequacy work. | *Confidential* | ENTSO-E welcomes interaction with relevant stakeholders to further improve the availability of data by TSOs regarding decommissioning/mothballing of power plants and considerations of so-called "system-relevant" assets. Within |

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| WindEurope also welcomes the set-up of the independent Advisory Council. | | the principles set out by ENTSO-E for a common and consistent data collection by all TSOs, ENTSO-E also welcomes interaction with relevant stakeholders/market parties to further improve the availability of data by TSOs on the expected generation mix forecast and "economic viability" considerations of the scenarios provided by those national stakeholders/market parties to TSOs. |
| **Any other comments that you would like to share?** | | |
| European Copper Institute considers that energy efficiency in electricity networks should be the next work area to be tackled.<br>The EU transmission network is facing unprecedented investment requirements to realise the internal electricity market and the large-scale integration of renewables. Such investments should be made on the basis of maximum benefit to society which means minimum life cycle costs. In this context, energy efficiency should be considered from the very early stages of an investment project.<br>In transmission lines, investment cost represents a small portion of life cycle costs, which are usually dominated by the cost of losses. The voltage and conductivity level that minimize the life cycle cost of a transmission line doesn't correspond with the voltage and conductivity that minimize the investment cost: optimization of the conductor size is needed (or alternatively an increase of voltage level). However, in the absence of an appropriate regulatory incentives, the project developer tends to opt for a suboptimum solution to the detriment of life-cycle cost savings for society.<br>For a given connection, all technology options should therefore be analysed. The overall investment of each option should be evaluated against its cumulative loss level over the lifespan of the asset. Other collateral benefits, such as saved CO2 and avoided investments in generation capacity should also be considered.<br>Losses in EU transmission networks are more than 60 TWh/year. Most of such losses take place in the wires of the transmission | European Copper Institute | ENTSO-E fully support a whole life cycle cost approach to get the best optimized infrastructure investment. Each project promoter (not ENTSO-E) defines its project infrastructure, but ENTSO-E can contribute in highlighting this whole life cycle cost approach. Furthermore ENTSOE took position on the EIA Directive and the Energy Efficiency.<br><br>In TYNDP2016, losses and CO2 were already considered and belong to CBA indicators. Especially HVDC cable and converter losses were estimated by project, assuming length, cable type, etc. We agree these estimations have to be further improved, what is planned for coming TYNDP2018.<br>To conclude, we fully support your view and will highlight it further in next TYNDP2018, keeping in mind that each promoter is finally in charge of defining its own infrastructure.<br><br>To put into context the 60 TWh losses mentioned, this represents a level of less than 2% from the 3300 TWh transited over European HV system and will within the best world practices.<br><br>TYNDP 2016 also comments on the technologies available to TYNDP projects in next 10 years. ENTSO-E always reviews |

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| lines. If a life cycle cost perspective were applied, the average loss level of new investments could be significantly reduced.<br><br>Some interactions are to be considered:<br>** While the CBA methodology used by ENTSO-E to define the TYNDP takes into consideration a number of parameters to maximize social benefits, the investment choice for a given line is taken as an input, without questioning whether the considered technology is the optimal from an energy efficiency and life cycle cost perspective.<br>** The trade-off between investment and losses is also requested by article 15-2-b) of the Energy Efficiency Directive: "Member States shall ensure, by 30 June 2015, that: […] concrete measures and investments are identified for the introduction of cost-effective energy efficiency improvements in the network infrastructure, with a timetable for their introduction." This requirement should apply equally to refurbishments of existing network infrastructure as well as to new investments. | | the technologies, maturity and their commercial availability.<br><br>Whilst TSOs are overall revenue neutral on the issue of transmission losses, but on the same time reduction of losses is one of the important indicators for the CBA of each investment project, we tend to agree with your observation that this concept should be treated within the context of the appropriate regulatory incentives framework.<br><br>As it currently stands, TSOs procure through competitive procedures or in the Market, the estimated amount of Transmission Losses in GWh, the cost of which forms part of the overall transmission tariff. It is in the hands of the NRA to develop an incentive scheme to make sure that all those considerations, either CAPEX+ OPEX or whole life cycle cost approach will give the opportunity to TSOs to optimise investments costs, operational costs and procurement of transmission losses while obviously all those savings will eventually benefit the final customers. |
| About the deployment of the grid codes.<br><br>Overall, to succeed in such a complex deployment, there is a need of three legs:<br>1) regulation<br>2) standardization<br>3) certification<br><br>Regulation:<br>A great job has been achieved with the grid codes.<br>The improvement would be on the consistency between codes to be sure there is no overlap and to take care of any.<br>For example, in DCC art 28, some provisions should be in the market codes. | (Schneider Electric)<br><br>As member of the independent Advisory Council for SEDC | ENTSO-E welcomes the comments from SEDC. Indeed regulation, standardization and certification are in the heart of deployment of grid codes.<br>- Multiple definition of frequency in SO GL<br>- Working groups at ENTSO-E dedicated to develop standardisation frequency process<br><br>For ENTSO-E, the details of frequency measurement are already within the focus of a large number of experts, namely:<br><br>- IEC TC 8 – Measuring relays and protection equipment, closing for comments on September 30th this year |

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| Standardization:<br>It is always necessary to define precisely the technical specifications. It is not the purpose of the grid codes but of Standards.<br>For example, when we mention "frequency", what is it exactly? There are 100 ways to measure the frequency:<br>- which nb of cycles to consider ?<br>- which filtering to introduce ?<br>Not having the same way of measuring frequency will lead to very different behavior of component on the grid, some of them reacting spontaneously, and some waiting for long period before being activated.<br>Considering that there is a cost in activating associated functions, this will create a market distorsion cross europe if not harmonised. Standards will solve these issues<br><br>Certification:<br>so not only standards are useful to provide in depth specification of grid codes functions, but testing methods and tools are key to provide insurance the specification of these functions are met.<br><br>ENTSO-E should be a key player to promote the right standards and certification through the ad-hoc bodies (like CENELEC for standardization). | | - Several national WG/organisations due to code implementation |