



14 September 2020

Laurent Schmitt
Secretary-General
ENTSO-E
Rue de Spa 8
1000 Brussels
Belgium

By email

CC:
ACER – Christian Zinglensen
European Commission - Ditte Juul Jørgensen
ENTSO-E Independent Advisory Council – Giles Dickson, Frauke Thies

OPEN LETTER ON THE POWER SYSTEM NEEDS REPORT

Dear Laurent Schmitt,

currENT is a new energy industry association that represents innovative grid technology companies operating in Europe. Our members develop and supply innovative technologies that optimise and maximise use of the existing electricity grid.

We congratulate ENTSO-E on the publication of the comprehensive 'Completing the map - Power system needs in 2030 and 2040' draft report that identifies where actions need to be taken to ensure continuous access to clean reliable and affordable electricity for all Europeans. However we see four points to further improve the report. These points are:

1. Project Promoters must have the flexibility to adapt, change or propose new solutions if a better solution becomes available or is identified

The System needs study is run every 2 years to provide updated data to project promoters. Given that innovation can be commercialised or proven at scale in a very short amount of time, innovative or new technologies will continue to become viable solutions for Europe during the time between projects being proposed to the TYNDP and their implementation on the grid (often 3yrs+). To ensure that the best solutions for society are ultimately delivered, the TYNDP process

must provide flexibility to promoters to easily adapt, change or propose new solutions at any point if new solutions become available or they identify a superior solution that meets the same system need more efficiently. All in all, while the optimisation of new line locations is mentioned in the document, we believe that the report falls short on the optimisation of existing power networks.

ENTSO-E notes that the 35 GW of cross border capacity reinforcements required by 2025 are already well-advanced, but currENT would like to highlight the opportunity to further optimise these reinforcements. Many of the planned reinforcements still run a high risk of being further delayed due to public opposition, administrative hurdles, on-site issues or supply chain/logistics delays. currENT proposes that project promoters for these reinforcements strongly consider the use of rapidly deployable or short-term solutions to improve or speed up their project's delivery, and ultimately increase cross border capacity and integrate renewables faster. This would ensure that the transmission capacity is delivered on time, or even early if there are benefits of this. We believe that we need all solutions - optimisation, reinforcement, and new grids - to address the bottlenecks that we already have and to meet the huge requirements for electricity networks in the very near future.

2. The value of smaller internal reinforcements must be recognised; the focus should not only be on large infrastructure projects

currENT believes that there should be more recognition for how internal network reinforcements can be an enabler of increased cross-border capacity, rather than a spin-off problem of interconnectors. Internal projects often use smaller scale or non-wires solutions that harvest benefits from being distributed across a wide geographic area. This is true particularly for smart and modular solutions (like Dynamic Line Rating, modular power flow control devices and distributed STATCOMs) that if deployed in volume (but not necessarily high cost) can have equally positive impacts as traditional large transmission projects.

These smaller reinforcements can provide significant cross border capacity increases if directly applied to tie lines, or if applied to internal lines by reducing the congestion on either side of the cross-border exchange. This is particularly valuable for the Clean Energy Package 70% requirement, according to which 70% of interconnector capacity needs to be made available to the market by 2025 (some countries opted for a linear 5-year trajectory, based on an action plan they had to submit by early 2020). These smaller projects often leverage rapidly deployable and modular solutions which can support TSOs in incrementally increasing the capacity for cross border trade over the next 5 years.

The TYNDP2020 package should more strongly recognise the importance of these smaller projects for both internal reinforcements and to increase cross-border flows. This can be supported by ENTSO-E ensuring that the TYNDP project proposal, selection and evaluation processes do not have a bias towards large infrastructure projects, by focusing on the impact of projects in

achieving the EU energy objectives rather than the scale or type of solution. National regulators could also have a requirement for TSOs to include these alternative or smaller scale solutions in their grid studies for the NDP and TYNDP processes.

3. The 'cost of delay' must be reflected in the assessment of TYNDP projects, and flexible solutions must be fairly valued

As ENTSO-E recognises on page 36, "*Transmission projects with lower costs, a different location, with new technologies or with additional benefits not captured by the current System needs methodology could contribute to capturing part of the remaining benefits*". Given that there are many possible solutions to resolve the same identified need, it is important that the assessment of options fairly values the benefits (and costs) of each proposed project.

currENT advocates for the optimisation and reinforcement of grids as a first step in grid development. While new grids are essential to meet certain long-term system needs, there is often scope to first utilise available capacity on the existing grid using flexible or alternative solutions. This can deliver earlier benefits to consumers while new infrastructure is 'in permitting' or under construction (e.g. by reducing constraint costs), and in some cases even defer or eliminate the need for the new infrastructure. The value of reducing carbon emissions in the near-term and making progress towards a high-RES grid now is far greater than reducing the same carbon emissions in 10 years' time. This 'cost of delay' associated with large infrastructure projects must be taken into account when considering which project should be taken forward to meet an identified system need.

The TYNDP process should reflect the importance of utilising available grid capacity and minimising the 'cost of delay', by ensuring that the project application and assessment processes (including the CBA) take into account the full benefits of flexible solutions that can optimise/reinforce the existing grid, and capture the risk of asset stranding and 'cost of delay' associated with some larger new infrastructure projects. Where the existing network is insufficient or non-existent (e.g. offshore grids), the infrastructure projects/new corridors that are identified in a pan-European decarbonisation roadmap should be prioritised (see point 4). Furthermore, ENTSO-E could consider how to capture the additional benefits of all projects/solutions in future editions of the system needs study e.g. reduction in carbon emissions.

4. Europe needs a coordinated roadmap for offshore grids in order to reach decarbonisation by 2050

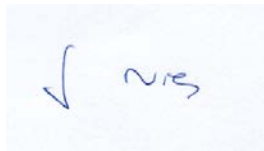
currENT agrees with ENTSO-E that offshore grids and the related onshore connections and reinforcements will need to be constructed at a much faster pace than onshore grids have historically been built (pg. 19). Furthermore, currENT strongly agrees with ENTSO-E's proposal for "a

holistic planning and coordinated on-and-offshore grid developments". This plan should lay out the roadmap for how we get from today's grid to a carbon neutral grid by 2050, and include a high level of stakeholder consultation to ensure that all perspectives and possible solutions are taken into account.

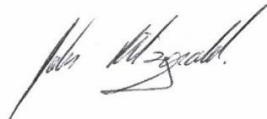
Projects that address the offshore and onshore infrastructure requirements in this roadmap should be prioritised in the TYNDP process. Given the scale of offshore wind capacity and grids required, ENTSO-E could consider introducing a new category for offshore projects to ensure that they are fairly assessed and prioritised. This would make sure that there is no unintended bias against offshore projects due to an unsuitable CBA.

We look forward to engaging in the planned consultation on the TYNDP2020 package in November, and we would be happy to see our points taken up. We remain at your disposal for further exchange on the above.

Yours sincerely,



Susanne Nies (Chair)



John Fitzgerald (Vice Chair)



Frederic Vassort (Vice Chair)