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# Recommendations for the revision of the TEN-E Regulation



**CURR<sup>E</sup>NT**  
Enabling Network Technology  
throughout Europe



Regulation of electricity network companies plays a key role in enabling the energy transition, and achieving the ambitious global targets set out in the Clean Energy Package, the European Green Deal, and the Paris Agreement. currENT encourages policy makers both at European and national levels, but also network operators and regulators to adopt the following seven recommendations. These recommendations will enable a framework that supports the uptake of new solutions in Europe's power networks.

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### **1. Value flexible solutions that can be delivered quickly in the project selection processes**

The Projects of Common Interest (PCI) project selection process can further improve to capture the value of flexible non-wires or alternative solutions that contribute to achieving European energy objectives in the near and longer-term.

Social Cost Benefit Analysis (SCBA) used for PCIs today, omits a number of key selection criteria. The revised TEN-E Regulation requires an updated SCBA that fairly reflects the value of flexible quick-to-deliver solutions, through consideration of the following factors:



- Support for the achievement of policy objectives (e.g. the Green Deal)
- Flexibility of the solution (its capability to adapt to changing situations)
- Deliverability of solution and risk of delays
- Disruption to the environment and communities by the works required to deliver the project
- Benefits of early delivery
- Scope 3 emissions over the entire project lifecycle

The value of reducing carbon emissions in the near-term and making progress towards a high-RES grid is far greater than reducing the same carbon emissions in 10 years' time. This 'cost of delay' associated with large infrastructure projects that take many years to construct must be taken into account when considering how a project contributes to progressing the energy transition. In the current SCBA a project delivered in 10 years' time can appear to be more attractive than a project delivered in 1 years' time, where both are resolving the same need. The latter project built 9 years earlier could deliver benefits such as increasing market integration, reducing wasted renewable energy or improving security of supply before the 10 year project is even built. These benefits of earlier delivery must be captured and valued in the revised SCBA and the overall PCI selection process under the TEN-E Regulation.

Currently future scenarios are a common tool in accounting for a wide range of uncertainties, for example in GDP, demand, renewable energy sources, closure of fossil fuel plants, climatic conditions, uptake in new technologies, etc. However, often the scenarios used are focused only on 2020 or 2030 outlooks, and are not fully compliant or consistent with full decarbonisation by 2050. The TEN-E Regulation should ensure that all scenarios used to assess PCIs are compliant with 2050 targets to ensure that only those projects that contribute to achieving this target are selected.

Whilst ENTSO-E and ENTSO-G produce multiple scenarios, recent PCI decisions have only used one scenario to select projects. Therefore, there is no accounting for what the impact on the value a project will provide with an almost inevitable change in the starting assumptions. Selecting a traditional infrastructure project that works well in one scenario but is a poor fit for others could lead to large stranded asset costs in the future. It should also be noted that for a project that takes many years to build, the risk of future assumptions being incorrect grows. Therefore, the ability of a solutions to be easily adapted over time to scale up or down the project as future needs evolve should be reflected in the PCI selection process. Such solutions can be seen as a 'no regrets' investment, as these solutions can often be re-deployed and scaled up/down over time as the network needs change.

The TEN-E Regulation should require that all candidate PCIs are evaluated under multiple scenarios, and fairly capture the value of flexible solutions to be adapted over time in the SCBA, to ensure that the best projects are selected.



## **2. Optimise existing grids first and build new ones where needed in line with a coordinated decarbonisation plan**

Today, new grid investments are often made before the capacity on the existing grid is fully utilised. Building new grids requires large amounts of capital investment, and typically takes many years to consent and develop due to public opposition and administrative hurdles. In this way, grids can become a major bottleneck for the energy transition, rather than an enabler.

The TEN-E Regulation must support the optimisation and reinforcement of existing grids as a first step, like the NOVA Principle in Germany. New grid technologies can enable network operators to maximise the capacity on the existing grid, minimise constraint costs, and create more flexibility on the network. Utilising this existing capacity can deliver benefits earlier to consumers and in some cases even defer or eliminate the need for new infrastructure. The TEN-E can support this by requiring project promoters to consider alternative solutions for their projects, and by ensuring that such flexible non-wires or innovative solutions are fairly valued in the project selection processes.

By supporting this optimization first principle, the TEN-E Regulation can ensure that the financing of energy infrastructure projects (including CEF grants) is directed towards those projects that most effectively contribute to delivery on European energy objectives.

Where the existing network is insufficient or non-existent (e.g. offshore grids), investments should be directed towards those infrastructure projects/new corridors that are identified in a pan-European decarbonisation roadmap as being critical to delivering on the EU Green Deal (see point 4).

## **3. Accelerate the uptake of innovative solutions for PCI projects, and facilitate the participation of smaller players**

Power networks must not delay Europe's green recovery from the unprecedented COVID-19 crisis or the achievement of the European energy targets. Climate-proof investments in power networks must continue to take place, and the deployment of renewables and use of next generation solutions must be accelerated.

Rapidly deployable solutions enable network operators to quickly adapt to the changing needs of their grid, and maintain a high standard of security of supply in a cost effective and sustainable way. These solutions can lead to the quicker release of additional capacity on the existing network, and can often be re-deployed, giving greater long-term flexibility to network operators and increasing the



robustness of grids against future uncertainties.

However the speed of delivery of these solutions is not valued in the existing PCI selection process, which means that the benefits of delivering a solution earlier than alternatives is not fairly reflected. The current 2 year timeline for the TYNDP process, and the further year for PCI selection does not support the use of solutions that can be installed in less than one year. While the process is shorter for Smart Grid PCIs which do not need to be in the TYNDP first, it could still be shortened to ensure that quick-to-deliver solutions are not delayed unnecessarily due to long processes.

Furthermore, the existing PCI process does not encourage the use of 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 large impacts as traditional transmission CAPEX. Such solutions could be applied directly to cross-border tie lines, but rather, it can release capacity on the tie-lines by applying them on national lines (e.g. internal bottlenecks). The TEN-E Regulation should ensure the project application, selection or 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 of solution.

Additionally, the existing PCI process can be inhibitive for the providers of rapidly deployable or smaller scale solutions, who are often Small and Medium Enterprises. SMEs have to rely heavily on the initiative and coordination by project promoters to put together an application and navigate through the selection process. The selection of partner Smart Grid solution providers by the project promoter may be biased, especially if their motivation to make more efficient use of assets and optimize existing processes (that result in OPEX saving) is low. Thus the TEN-E should not only support the use of these alternative solutions, but also encourage increased participation of non-TSO/DSO players in PCIs, particularly SMEs.

#### **4. Prioritise technologies and projects that contribute to a pan-European coordinated plan for reaching decarbonisation by 2050 Pathway**

At least €590.2 billion is forecast to be invested in power networks in Europe over the next decade<sup>1</sup>. The TEN-E Regulation must direct the billions of planned investment in new infrastructure towards the projects that support the decarbonisation of the European power grid by 2050, in line with the Green Deal. We would echo E3G points from the TEN-E webinars regarding ‘Build an infrastructure governance for a changing energy system’. New impartial expertise is required to map out and assess the full range of combinations of old and new energy solutions that could deliver climate neutrality. Independently derived assumptions will enable informed choices that can allow us to accelerate the speed and reduce the costs

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<sup>1</sup> [https://ec.europa.eu/clima/sites/clima/files/docs/pages/com\\_2018\\_733\\_analysis\\_in\\_support\\_en\\_0.pdf](https://ec.europa.eu/clima/sites/clima/files/docs/pages/com_2018_733_analysis_in_support_en_0.pdf)



of the transition by making the right efficient investment decisions. Rather than just incrementing from the past we also need to look back from the future to identify key infrastructure choices we need to make and by when. Looking through this lens we may identify anticipatory investments that are necessary steps on the pathway to net-0.

Decarbonisation of the European power grid will require 100's of GWs of additional renewables to be built over the next few decades and coordinated spatial planning for their development and connection. A pan-European collaborative approach must be taken to integrating this level of additional renewables into the European power grid in a coordinated, timely and streamlined manner. This is particularly important in the offshore arena where multiple Member States are usually involved.

The Political Declaration on Energy Cooperation of the North Seas countries (formerly NSCOGI) will be a priority of the German EU Presidency in 2020. The forthcoming Declaration must address the need for sound cooperation of Member States with a view to establish state of the art multi terminal platforms that serve the European welfare at large, instead of duplicating national structures that are not interconnected as needed. These projects may involve more than 2 countries and therefore the transboundary process becomes more or less unworkable. The TEN-E revision should recognise and support projects that form part of a pan-European plan for the future development of new networks, particularly offshore grids. A check list contents list for Environmental Impact Assessment (EIA) /EIS for offshore PCIs would also be welcome as no normal best practice exists in Europe.

## **5. Align TEN-E Regulation with European Long-Term policy objectives, and ensure projects that contribute to this are prioritized**

There are many regulatory measures and changes planned for 2020, including the Offshore Communication, the update to the Energy Efficiency Directive, the Smart Grid Indicator and many more. It is critical that the revision of the TEN-E Regulation is aligned with these other measures, and with top-level energy-, climate and social policy in order to deliver on our one common goal: The European Green Deal.

The existing TEN-E Regulation has been successful in identifying and providing a focus on projects that positively impact energy market integration, security of supply, and the competitiveness of the EU energy market. However the TEN-E has not been instrumental in accelerating the delivery of these projects to reach EU energy targets, nor has it driven consideration of alternatives or selection of the most efficient or optimum solution available in terms of cost, timing of delivery, minimal environmental impact etc.



CurrENT wants to see an approach to the revision of the TEN-E Regulation that considers what needs to be achieved over the coming decades to ensure that we reach climate neutrality by 2050. It should ensure that all projects selected as Projects of Common Interest (PCIs) contribute to achieving the Green Deal and Clean Energy Package objectives, which will result in better decisions for all of society. The TEN-E can better support this by addressing the following factors in the revision:

- Greater openness to and consideration of alternative or innovative solutions
- Recognition of the value of earlier completion of projects or more flexibility in their design
- Increased alignment of the TEN-E with EU top-level energy policy and targets, including increased focus on optimising the existing as a first step and on projects that can accelerate the integration of renewables on the European grid.

Consequently the simultaneous objective to drive energy efficiency and earliest development of renewable energy whilst maintaining security of supply cannot be said to have been delivered.

## **6. Increase transparency in network development with a focus on the early stages of project selection and evaluation**

Increased transparency and consultation on network development enables industry stakeholders to share their knowledge and perspective, by identifying and proposing improvements to existing plans. This facilitates the selection of better solutions for all of society. Transparency is central to ensuring that new technologies are fairly considered, evaluated and ultimately taken up if the best solution.

While the existing TEN-E Regulation has increased transparency in the PCI process through public consultations, the consultations are too focused on the permitting stages and often result only in delays to the project. This means that there is limited opportunity for stakeholders to propose alternative solutions unless they propose projects directly in competition with other ones. It is challenging for non-TSO/DSOs to submit competing PCI projects, due to the information asymmetry with TSOs/DSOs and the high cost of running several rounds of public consultations. Thus, non-TSO/DSOs have a limited scope to propose alternative solutions to meet the system needs of the European grid.

The revised TEN-E Regulation should require increased consultation at an earlier stage in the PCI process. By seeking input from stakeholders at the scenario building and solution selection stages, alternative or more innovative solutions to resolve the identified system need and deliver on the output can be proposed by stakeholders. The consultation process should also involve addressing the responses received by stakeholders and explaining the reasons why their input was taken into account or not.



The PCI process assumes by default that they all projects require major infrastructure and therefore enforce public onerous consultation requirements. Modern technology can often provide the benefits required of a traditional infrastructure PCI without the large-scale construction works or local disruption. Therefore enforcing the same requirements on a project based on its benefit rather than its scope is counterproductive. Thus it is important that the revised TEN-E Regulation has consultation processes that are appropriate to different types of projects to avoid unnecessary delays to smaller projects, which are often non-wires solutions that have minimal impact on the environment or local communities (e.g. substation-based projects).

## **7. Strengthen the roles of ACER and the Commission and enhance the effectiveness of consultation processes**

We support the ACER proposals from the TEN-E webinars regarding proposed improvements. Scenarios need to be developed in a neutral way. The Commission as the policy body should develop, maintain and approve the scenarios with the support of ENTSOE/ENTSOG/EDSO and other stakeholders.

The roles of ACER and NRAs should be strengthened, to enable these parties to call for PCIs to meet specific needs that support progress towards delivering on EU/national targets and objectives. Under the current structure, TSOs may prioritize the optimization of local benefits that diverge from the targets set by European/ regional policies and directives that are supposed to be the overarching principles. The basis for decisions by ACER, NRAs or any other party involved in the PCI submission and selection processes should be on the Social Cost Benefit Analysis (SCBA) results, not biased towards CAPEX vs. OPEX, and fairly value all project benefits including the value of flexible solutions. ACER in particular should have a greater role in working with the JRC, Regional Groups and the EU when evaluating candidate PCIs.