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## Orgalim recommendations on aligning the TEN-E regulation with the European Green Deal

### Executive summary

Orgalim welcomes the revision of the TEN-E regulation. To make the regulatory framework fit for purpose we have identified ten key recommendations:

1. Change the scale and scope requirements for **smart grid projects** and redesign the qualification criteria of **cross-border impact**.
2. Establish a separate category for **non-regulated infrastructure** which provides flexibility and storage.
3. Introduce a new category for **offshore hybrid projects**.
4. Add a thematic area on **energy system integration**.
5. Implement an **integrated energy infrastructure planning**.
6. Establish **European Commission oversight** of the process leading to the development of the scenarios for TYNDPs.
7. Entrust the analysis of possible solutions to address system needs to **an independent body**.
8. Set up a Union-wide **distribution network development plan**.
9. Embed the **energy efficiency first principle** throughout scenario development, project evaluation and project eligibility.
10. Involve **civil society and local communities** during all phases of project planning.

### Introduction

The Trans-European Networks for Energy (TEN-E)<sup>1</sup> regulation was proposed by the European Commission in the context of lagging investment in energy infrastructure, in particular large projects at transmission level. The initial aim was to support the completion of the internal energy market by promoting the development of cross-border projects that would help with geographic integration of the market.

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<sup>1</sup> Regulation (EU) No 347/2013

With the European Green Deal<sup>2</sup> the priority has shifted. Now, alongside the aim of developing the internal market's hardware, the main focus has been put on supporting the full decarbonisation of EU economy by deploying innovative technologies and integrating the energy sector, as well as increasing its links with digital and transport systems.

Achieving climate neutrality by 2050 means a future energy system that is more electric, more sector-coupled, more renewable-based and energy efficient, significantly more local but interconnected and digitally enabled. One key to delivering such a power system will be a modern, future-proof, secure and smart energy infrastructure.

Europe's technology industries, represented by Orgalim, welcome the revision of the TEN-E regulation as an opportunity to make the regulatory framework fit for purpose. In the future, projects benefitting from a Projects of Common Interest (PCIs) status should contribute to meeting the EU's decarbonisation objectives. Furthermore, only those projects that are fully in line with the climate neutrality goal should receive funding from the Connecting Europe Facility (CEF). To make the regulatory framework fit for purpose we have identified ten key recommendations.

## 1. Change the scale and scope requirements for smart grid projects and redesign the qualification criteria of cross-border impact

The TEN-E regulation mainly focuses on transmission projects, which are necessary but do not sufficiently represent the entirety of the future energy system. Innovative electricity infrastructure is needed at both transmission and distribution level, as energy transition is mainly taking place at the distribution level where 90-95% of renewable energy sources are, and will most likely continue to be, connected. Also, the accelerated electrification of new end-uses will require the reinforcement of the distribution grid in order to make it smarter. However, current scale and scope requirements for smart grids make it very difficult for these projects to be eligible. This is well illustrated by the fourth PCI list which contains 149 projects, among which there are only 6 smart grid development projects, with the Smart Border Initiative project being at the distribution level – the first and only one of its kind since 2013. We recommend the removal of the 10kV threshold and the inclusion of low voltage level.

Another barrier for more smart grids projects at distribution level is the current cross-border impact criteria. We propose the consideration of the following alternative interpretations of such an impact: (1) implementing shared concepts in different Member States with or without a direct and physical connection between the TSOs/DSOs involved or (2) the transfer of post-project know-how in innovative fields. Also, cross-border benefits in terms of decarbonisation and efficiency in neighbouring countries need to be recognised.

## 2. Establish a separate category for non-regulated infrastructure which provides flexibility and storage

The growing share of variable renewable energy in the electricity generation mix strongly increases the need for flexibility. The electric vehicle (EV) smart charging infrastructure or building management systems offer complementary solutions to cross-border transmission lines when it comes to addressing the flexibility needs of the energy system. A specific category for market-based tools, especially demand-side solutions, should be introduced to harness the storage power of car batteries and homes as well as the flexibility potential within the industry.

## 3. Introduce a new category for offshore hybrid projects

There is a growing concern among wind farm developers that the current way of connecting wind farms to the shore is unsustainable in the long run. Instead of individual wind farm-to-shore connections, we need an offshore meshed grid, or at least some hybrid grid; i.e. a transmission line acting as an interconnector and connecting a few wind farms on the

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<sup>2</sup> COM (2019) 640 final

way. The development of a meshed offshore grid in the North Sea offers financial, technical and environmental advantages. Such a grid would allow for better interconnection of decentralised renewables generation with electricity grids across longer distances. It also would be possible to feed electricity to several markets.

#### 4. Add a thematic area on energy system integration

A cost-effective decarbonisation of the European economy requires better integration across infrastructure, energy carriers and sectors. The revised TEN-E should embody such a new approach by facilitating and fostering cross-sectorial synergies with the building, energy, transport and digital sectors. The upcoming Renovation Wave initiative and the ongoing and future revision of key pieces of legislation such as the Alternative Fuels Infrastructure Directive and the Regulation for the Trans-European Transport network represent a unique opportunity to explore greater synergies among sectors. Against this background, we believe that the TEN-E should lead the way by including a new thematic area for cross-sectorial projects in Annex I.

#### 5. Implement an integrated energy infrastructure planning

Currently ENTSO-E and ENTSG work together only in the first phase of the European network development process, namely the scenario building. But the necessary sector integration goes beyond just gas and electricity. An integrated plan for energy infrastructure is needed, in which the interlinkages between the electricity, gas and heat sectors would be considered to ensure that new investments are future proof and to minimise the overall system costs. Stakeholders representing different sectors at both transmission and distribution level need to be consulted in all phases of grid planning – scenario building, identification of investment needs, and project evaluation. Furthermore, energy infrastructure planning should be coordinated with transport infrastructure planning, in particular as regards the roll-out of electric vehicle charging infrastructure.

#### 6. Establish Commission oversight of the process leading to the development of the scenarios for the TYNDPs

The scenario development is a critical step in network development planning. An energy system which is increasingly decentralised makes the coordination between TSOs and DSOs even more important. To ensure that scenarios are developed in a neutral way, the ENTSGs should involve the new EU DSO entity, and market participants such as flexibility service providers, from the outset - especially when assumptions on demand and supply are being made. In the revised TEN-E regulation, the Commission's role in the scenario building process should be strengthened. Having the Commission to oversee the process would ensure that scenarios are consistent with the National Energy and Climate Plans as well as European energy and climate objectives.

#### 7. Entrust the analysis of possible solutions to address system needs to an independent body

The ENTSGs have the technical expertise, therefore they are the right actors to identify the system needs. However, the analysis of all the possible solutions (transmission, storage or demand side response enabled by smart grids) to address these needs should be done by an independent body (e.g. ACER) on the basis of a very solid cost benefit analysis.

#### 8. Set up a Union-wide distribution network development plan

For the timely deployment of necessary infrastructure at both transmission and distribution level it is important to set up a Union-wide distribution network development plan to complement the existing TYNDP for transmission level. Such a

plan should provide a clear map of both the infrastructure and investment needs required to make Europe's electricity distribution grids fit to achieve the EU's decarbonisation objectives.

## 9. Embed the energy efficiency first principle throughout scenario development, project evaluation and project eligibility

The Governance Regulation points out that the energy efficiency first principle requires consideration of whether cost-efficient, technically, economically and environmentally sound alternative energy efficiency measures could replace the envisaged planning, policy and investment measures whilst still achieving the objectives of the respective decisions. This includes favouring the demand-side solutions if they are more cost effective than investments in grid capacity.

## 10. Involve civil society and local communities during all phases of project planning

Further improving the permit-granting process and increasing public acceptance remain priority areas for speeding up implementation. We call for a regulatory framework which favours collaborative approaches involving civil society and local communities in all phases of the planning process, with the objective of promoting locally tailored, transparent and participatory planning.

## Conclusion

The revision process of the TEN-E regulation should result in support for investments in projects serving the sustainable expansion and modernisation of both transmission and distribution networks. Europe enjoys the benefits of a reliable energy infrastructure. A modern, smart, efficient and connected infrastructure is the backbone of the green and digital transformations that Europe has embarked on – and as such the TEN-E regulation revision will be essential for successfully implementing the Clean Energy Package, the Energy Union and the European Green Deal.

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Orgalim represents Europe's technology industries, comprised of 770,000 innovative companies spanning the mechanical engineering, electrical engineering, electronics, ICT and metal technology branches. Together they represent the EU's largest manufacturing sector, generating annual turnover of over €2,100 billion, manufacturing one-third of all European exports and providing 11.5 million direct jobs. Orgalim is registered under the European Union Transparency Register – ID number: 20210641335-88.

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