



## Questions and Answers: The revision of the TEN-E Regulation

Brussels, 15 December 2020

### 1. What is the TEN-E Regulation and what are its main benefits?

The [TEN-E Regulation](#) established a new approach to cross-border energy infrastructure planning when it was adopted in 2013. It brought together stakeholders in regional groups to select and help implement projects of common interest (PCIs) that link Member States' energy networks, connect regions currently isolated from European energy markets, strengthen existing cross-border interconnections, and help integrate renewable energy.

PCIs helped most Member States reach their 2020 interconnection targets and effectively contributed to energy market integration and security of supply across the EU. Electricity PCIs contributed to sustainability by facilitating the integration of increasing amounts of renewable energy. Furthermore, once the on-going gas PCIs will be in operation in the early 2020s, Europe should achieve a well-interconnected and shock-resilient gas grid, giving all Member States access to at least three gas supply sources or the global liquefied natural gas (LNG) market.

### 2. Why is the Commission proposing to revise the TEN-E Regulation?

The revision aims at modernising and upgrading the TEN-E framework, reflecting the Green Deal objectives and making it fit for the infrastructure needs of the clean energy system of the future. This need was confirmed by the results of a thorough evaluation and stakeholder input. The Regulation should now focus on the upgraded 2030 climate and energy targets and the 2050 climate neutrality objective under the [European Green Deal](#), and adapt to the rapid ongoing technological developments.

The proposed changes reflect the key role energy infrastructure will play in the green transition. New and updated infrastructure categories and a new approach to infrastructure planning will support the role of electrification in the future energy mix, help to decarbonise the gas sector through renewable and low-carbon gases, including hydrogen, and develop a more integrated energy system. The proposal is also a first step to deliver on the ambitious objectives for the development of offshore renewable energy as proposed in the [Offshore Renewable Energy Strategy](#) in November 2020.

### 3. How does the revised Regulation help reach the goals of the European Green Deal?

To achieve climate neutrality by 2050 and higher levels of greenhouse gas emission reductions by 2030, Europe will need a more integrated energy system, relying on rapid electrification with a doubling of the share of renewable electricity production. We will also need the decarbonisation of the gas sector and a higher uptake of innovative solutions.

Under the revised TEN-E Regulation, natural gas infrastructure and oil pipelines will no longer be eligible for PCI status. New and updated infrastructure categories will support smart electricity grids and better uptake of renewable and low-carbon gases, including hydrogen. A new approach to a more integrated onshore and offshore infrastructure planning will support the scale-up in offshore grid development across Europe's seas.

The revised TEN-E Regulation aims for an efficient integrated infrastructure planning while taking due consideration of the latest Union decarbonisation targets and the energy efficiency first principle. With these provisions, the revised TEN-E Regulation should ensure that only infrastructure projects for which there are no reasonable alternative solutions and which contribute to the EU's decarbonisation goals are selected as projects of common interest.

All PCI project candidates will be subject to a mandatory sustainability assessment. Each candidate project will have to contribute significantly to sustainability through the integration of renewable energy into the grid or the reduction of greenhouse gas emissions. In addition, during project implementation, project promoters will have to report on the compliance with environmental legislation and demonstrate that projects do no significant harm to the environment in accordance

with the Article 17 of the [Taxonomy Regulation](#).

#### **4. How does the proposed Regulation help Europe's economic recovery from the Covid-19 crisis?**

Investments in smart and sustainable energy infrastructure are central to achieving a long-term green recovery. Clean infrastructure will contribute to the resilience of our future economy.

By revising the scope of the Regulation, as well as strengthening the regulatory, planning and permitting tools for smart and sustainable infrastructure, the revised TEN-E will help trigger and mobilise the needed grid investments and address delays in the implementation of key infrastructure projects aggravated by the Covid-19 crisis.

#### **5. How does the revised TEN-E Regulation help the implementation of the recently presented EU Strategy on Offshore Renewable Energy by the Commission?**

The proposal introduces key provisions to upscale offshore renewable energy in Europe. The revised TEN-E Regulation identifies four offshore priority corridors around Europe's sea basins and lays down rules for a coordinated long-term integrated offshore and onshore grid planning.

The proposal builds on the regional cooperation strengths of the TEN-E framework and introduces integrated offshore development plans, which will be included in the ten-year network development plans. Member States, with the support of the Commission, will now jointly define and agree on the amount of offshore renewable generation to be deployed within each sea basin by 2050, with intermediate steps in 2030 and 2040. These objectives will be based on the national energy and climate plans, the offshore renewable potential of each sea basin, environmental protection, climate adaptation and other uses of the sea, as well as the EU's decarbonisation targets.

The revised TEN-E Regulation introduces a one-stop-shop for each sea basin - a single point of contact for reducing complexity, increasing efficiency and accelerating the permitting process of offshore transmission infrastructure.

#### **6. Will natural gas infrastructure projects still be eligible as Projects of Common Interest?**

No. The Commission proposes to exclude cross-border natural gas infrastructure from the scope of the revised TEN-E Regulation.

The continued policy support for such projects is no longer justified considering the improvements in infrastructure connections, technological developments and market functioning achieved over the past years and in view of the expected decline in natural gas demand to fulfil our climate ambition and decarbonisation objectives.

The existing TEN-E framework has been successful in delivering a secure and well-interconnected natural gas grid in Europe. The Commission expects that by the early 2020s, when the gas PCIs currently under implementation will be in operation, Europe should achieve a well-interconnected and shock-resilient gas grid and all Member States will have access to a diversified range of suppliers, including to the global LNG market.

In the context of decarbonisation, while gases will play a notable role in final energy consumption, the gas mix is expected to change significantly. By 2050, natural gas consumption will be reduced by 66 - 71% compared to 2015 while the combined demand for renewable and low-carbon gases, in particular biogas, hydrogen, and synthetic methane, will be double the demand for natural gas.

#### **7. How does the revised TEN-E Regulation support hydrogen projects and other low-carbon gases?**

The Commission proposes to include hydrogen transport infrastructure and certain types of electrolysers in the scope of the TEN-E Regulation to facilitate European-level planning for hydrogen infrastructure.

The [EU Hydrogen Strategy](#), presented by the Commission on 8 July, recognises renewable hydrogen as being most compatible with the climate-neutrality objective. Low-carbon hydrogen may play a role in a transition phase to help scale up the market. Hydrogen transport and storage infrastructure will enable both. As supply and demand for hydrogen will scale up in the EU, it will require dedicated infrastructure.

The future EU hydrogen network is expected to consist to a great extent of natural gas assets repurposed for hydrogen transport, but it will also require new infrastructure. The Commission's assessment shows that the conversion of existing natural gas infrastructure can contribute to a cost-

effective energy transition, as its cost is up to 90% lower than the cost of building new hydrogen pipelines. The proposal therefore covers both new and converted assets explicitly dedicated to hydrogen.

The existing natural gas grid and ongoing PCIs are suitable to transport biomethane, however the uptake of renewable and low-carbon gases needs to be facilitated. Therefore, the Commission proposes to create a new investment category, smart gas grids, to enable the introduction of these new clean gases into the grid to replace natural gas. This investment category is not aimed at creating additional cross-border transmission pipelines. Instead, smart gas grids will cover network upgrades necessary for the integration of renewable and low-carbon gases, notably through the inclusion of digital systems and components integrating ICT, control systems and sensor technologies and equipment enabling reverse flows of renewable and low-carbon gases from the distribution to transmission level.

#### **8. How does the revised TEN-E support the smartening of the electricity grids?**

Smart electricity grids are key to supporting the accelerated electrification of the energy system. They are an established infrastructure category since the adoption of the TEN-E Regulation in 2013. There are currently six PCI smart grid projects in the fourth PCI list. The revised TEN-E Regulation proposes to broaden the eligibility criteria to include elements regarding innovation and digital aspects, maintaining the focus on cross-border smart grid projects with the highest EU added value. The provisions further clarify the role of project promoters, opening the possibility for cross-border smart grid projects promoted at transmission level, without the involvement of DSOs. This way, smart electricity grid technologies will be able to support the expected significant increase in power demand from e-mobility.

#### **9. How does the revised TEN-E support energy system integration?**

The Commission's communication on [Energy System Integration](#) underlines the need for integrated energy infrastructure planning across energy carriers, infrastructures, and consumption centres. However, the evaluation of the TEN-E framework and the results of the stakeholder consultation indicated that the current planning and governance model could not deliver a climate-neutral economy and it does not match the requirements of system integration, where infrastructure needs for electricity and gas, including renewable and low-carbon gases will need to be looked at in a holistic way. The revised TEN-E introduces two key sets of provisions that will address this issue.

First, compared to the sectoral approach to infrastructure planning where electricity and gas networks are planned and managed mostly independently from each other, the revised TEN-E Regulation provides an optimal and efficient integrated infrastructure planning. The new approach is based on infrastructure needs and scenarios that are fully in line with the EU's decarbonisation targets and take due consideration of the energy efficiency first principle. While acknowledging the established and unique expertise of the European Networks of Transmission System Operators (ENTSOs) in European network planning, the revised provision strengthens the governance by adjusting the roles of the key actors involved in the development of the Ten-Year Network Development Plans (TYNDP). There will be increased stakeholder involvement combined with strengthened oversight by the EU Agency for the Cooperation of Energy Regulators (ACER) and the Commission on the ENTSOs.

Second, under the revised provisions, the Commission is empowered to scrutinise and approve major steps in the infrastructure planning process, in particular regarding the development of joint scenarios that define infrastructure needs and cost-benefit analysis methodologies. At the same time, ACER is mandated to issue guidelines for joint scenario development and approve incremental updates in the methodologies for cost-benefit analysis of projects, hence speeding up the process and guaranteeing an energy system integration approach.

#### **10. Which infrastructure projects under the revised TEN-E will be eligible for funding under the Connecting Europe Facility?**

The Connecting Europe Facility (CEF) will continue to address the financing gap for PCIs with a high socioeconomic and societal value but lacking commercial viability. The eligibility for financial assistance under CEF is linked to the scope of the infrastructure categories covered under the revised TEN-E.

While all infrastructure categories will be eligible for funding under CEF for studies to reduce risks in the early stages of development, only a selection can apply for grants for works. Since 2013, more than 65% of the total funding under CEF was allocated to electricity transmission and smart grid projects. Such share of the support will further increase in light of the growing demand for

renewable electricity and extended scope of the TEN-E Regulation to offshore grids. Hydrogen projects will also be eligible to obtain CEF funding.

#### **11. Will the revised TEN-E Regulation support CO2 infrastructure?**

The revised TEN-E Regulation will continue to support infrastructure for the transport of carbon dioxide for the purpose of the permanent storage of carbon dioxides. This acknowledges that carbon capture and storage is an important technology for the decarbonisation of energy intensive sector. An expansion of the framework to include infrastructure related to the geological storage of carbon dioxide would not relate to transmission networks and interconnections and hence was considered to be outside the scope of the Regulation. Moreover, Commission's impact assessment found no evidence of regulatory or administrative barriers in relation to cross-border networks that could be addressed by including CO2 storage in the provision of the TEN-E Regulation.

#### **12. When will these new rules enter into force?**

The precise timing will depend on the process of negotiation with the European Parliament and the Council. In the meantime, preparations had to start already now for the preparation of the fifth PCI list, due at the end of 2021. The preparations still follow the existing regulation, however based on improved sustainability assessment of projects. The intention is for the new regulation to be in place in time for the sixth PCI list.

#### **For more information**

[Press release](#) - Commission proposes revised rules for cross-border energy infrastructure in line with the European Green Deal

[Factsheet](#) on the revised TEN-E regulation

QANDA/20/2393

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