

COMBINED EVALUATION ROADMAP / INCEPTION IMPACT ASSESSMENT

This combined evaluation roadmap/Inception Impact Assessment aims to inform citizens and stakeholders about the Commission's work in order to allow them to provide feedback on the intended initiative and to participate effectively in future consultation activities. Citizens and stakeholders are, in particular, invited to provide views on the Commission's understanding of the current situation, problem and possible solutions and to make available any relevant information that they may have, including on possible impacts of the different options.

TITLE OF THE INITIATIVE	Revision of the guidelines for trans-European Energy infrastructure
LEAD DG – RESPONSIBLE UNIT – AP NUMBER	DG ENER B.1 PLAN/2020/6566
LIKELY TYPE OF INITIATIVE	Proposal for a Regulation
INDICATIVE PLANNING	Q4 2020
ADDITIONAL INFORMATION	https://ec.europa.eu/energy/en/topics/infrastructure/trans-european-networks-energy

This combined roadmap/Inception Impact Assessment is provided for information purposes only. It does not prejudice the final decision of the Commission on whether this initiative will be pursued or on its final content. All elements of the initiative described by this document, including its timing, are subject to change.

A. Context, Evaluation, Problem definition and Subsidiarity Check

Context

On 11 December 2019, the Commission presented its Communication ‘The European Green Deal’ that confirms that the transition to climate neutrality requires smart infrastructure and foresees that the regulatory framework for energy infrastructure, including the Regulation (EU) No 347/2013 on guidelines for trans-European energy infrastructure¹ ("**TEN-E Regulation**"), needs to be reviewed to ensure consistency with the 2050 climate neutrality objective. Increased cross-border and regional cooperation will contribute in achieving the clean energy transition at affordable prices.

Already in March 2019, as part of the political agreement between the European Parliament and the Council on the Connecting Europe Facility for the period 2021-2027, the co-legislators agreed that the Commission should evaluate the effectiveness and policy coherence of the TEN-E Regulation and submit an evaluation to the European Parliament and to the Council by 31 December 2020 and if appropriate, the evaluation is expected to be accompanied by a legislative proposal for the revision of the guidelines². Also in light of new legislation under the Clean Energy for all Europeans³, Energy Security, and Clean Mobility packages⁴ that came into force, and the need to further focus on the timely completion of the TEN-E networks supporting the energy transmission and distribution landscape of tomorrow, the Commission formally launched an evaluation already in 2019.

The revision of the TEN-E Regulation will address the new policy ambition of the European Green Deal. The Commission will deliver on this ambition and present a legislative proposal by the end of 2020. Member States and stakeholders have as well called for the revision of the guidelines to align the TEN-E policy framework with the new policy context.

¹ Regulation (EU) No 1316/2013 of the European Parliament and of the Council of 11 December 2013 establishing the Connecting Europe Facility, amending Regulation (EU) No 913/2010 and repealing Regulations (EC) No 680/2007 and (EC) No 67/2010, OJ L 348, 20.12.2013, p. 129, <http://data.europa.eu/eli/reg/2013/1316/oj>

² <https://www.consilium.europa.eu/media/38507/st07207-re01-en19.pdf>, http://www.europarl.europa.eu/doceo/document/TA-8-2019-0420_EN.pdf

³ <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/clean-energy-all-europeans>

⁴ <https://webgate.ec.europa.eu/playground-multisite/ener/en/topics/energy-security>, https://ec.europa.eu/transport/modes/road/news/2017-11-08-driving-clean-mobility_en

Evaluation

The TEN-E Regulation lays down rules for the timely development and interoperability of TEN-E networks in order to achieve the EU's energy policy objectives. Its key objective is the timely implementation of the projects of common interest ("PCI") which interconnect the energy markets across Europe, thereby improving better integration of renewable energy sources, better security of supply and higher competition within markets that keeps prices in check. The TEN-E Regulation sets out criteria for establishing the projects of common interest ("PCI") necessary to implement priority corridors and areas in the categories of electricity, gas, oil, smart grids and carbon dioxide networks. It also sets a framework to facilitate the timely implementation of these PCIs, provide a framework for cross-border allocation of costs and incentives of PCIs and determine the conditions for Union financial assistance for the PCIs. The experience with the application of the TEN-E Regulation confirms that the legal framework has delivered tangible results as was shown in the evaluation of the TEN-E Regulation in 2017⁵.

The main policy priority of the current TEN-E Regulation has been to improve energy security and interconnectivity of all Member States and regions. However, now when many interconnections have been or are close to being finalized, the objective to facilitate an accelerated integration of renewable energy into our energy networks will become even more important, in line with the ambitious energy and climate targets. The completion of the internal energy market is not yet achieved and remaining bottlenecks still need to be addressed, also in view of achieving the EU interconnection targets.

In June 2019, the Commission launched an evaluation of the TEN-E Regulation⁶ in response to the political agreement between the co-legislators and considering wider policy developments and new technological developments since the adoption of the TEN-E Regulation in 2013 as well as the important progress made.

The key objective of the evaluation is to assess how the TEN-E Regulation as a specific intervention has performed in meeting its objectives as described above. The reference period for the evaluation is 2013 – 2019 (as far as data are available for 2019) and it will cover all Member States. The evaluation will address the following five evaluation criteria: effectiveness, efficiency, relevance, coherence and EU added-value. The results of the evaluation will inform the problem definition and feed into defining the policy options.

Problem the initiative aims to tackle

With the current climate and energy policy framework in place, the EU is not on track to achieve carbon neutrality by mid-century. Current policies and 2030 targets may be only sufficient to achieve -60% GHG reductions by 2050⁷. Energy production and use plays a central role in contributing to the emissions reduction, as it is today responsible for more than 75% of the EU's greenhouse gas emissions.

Energy infrastructure is a key enabler for the energy transition as reflected in the Commission's communications on the European Green Deal and A Clean Planet for all⁸. Without the timely completion of a sustainable and smart infrastructure that considers both the full potential of the supply and demand, it will not be possible to reach climate neutrality by 2050. Infrastructure projects are long-lived assets and will therefore need to be consistent with the climate neutrality objective, avoiding lock-in and the risk of financing stranded assets.

First, TEN-E regulation is not up to date when it comes to catering for the new technological developments and solutions for decarbonisation of the existing power systems. Firstly, Smart grid solutions, including demand response, have developed considerably over the past years because of the acceleration of the digital transformation of the electricity sector. Secondly, smart sector integration between the power and gas systems, as well as with other sectors such as transport and industry, offers additional opportunities to decarbonise the gas grid and manage the power system more efficiently, for instance through the production of hydrogen and synthetic gases from renewable energy sources. The technologies for this are increasingly available but not yet cost-competitive for deployment at scale. Finally, the uptake of CO₂ related investments (transportation, storage and utilisation) will be a key enabler for the decarbonisation in particular in industry.

Second, the current regulatory framework does not match the need for an integrated and cross-sectoral

⁵ Commission Staff Working Document (SWD(2017)425) accompanying the Commission Delegated Regulation (EU) 2018/540, https://ec.europa.eu/energy/sites/ener/files/documents/swd_accompanying_pci_list_final_2017_en.pdf

⁶ https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2019-3443380_en

⁷ Commission Communication 'The European Green Deal', COM(2019) 640 final

⁸ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0773>

approach to network planning as it is too much based on a sectoral approach with investment needs assessed for the gas and electricity sectors in different processes. Also, the expected expansion of the offshore grid needs to be adequately reflected in future grid planning. In addition, the distribution system level will play a more important role in energy infrastructure planning also because the majority of renewable energy generation capacity is connected to the low and medium voltage grid.

In addition, the evaluation will also assess the interoperability of national networks taking into account in particular of islands and peripheral regions (incl. outermost regions) as well as opportunities for enhanced cooperation with neighbouring and third countries.

Last, this initiative will also consider simplification and burden reduction opportunities. In particular, implementation challenges related to permitting, coherence with environmental objectives, and sharing of costs among countries based on actual cross-border benefits, which will be analysed in detail. Also, the simplification of the PCI selection process will need to be looked into.

The current level of energy infrastructure investments are clearly not sufficient to transform and build the energy infrastructure that is needed to achieve the energy transition by 2050. The in-depth analysis in support of the Commission's long-term strategic vision for a prosperous, modern, competitive and climate neutral economy estimates that the average annual investments needed for the period 2021-2030 is EUR 59.2 billion for the power grid⁹ including both the transmission and distribution networks. Already in 2017, a study commissioned by the Commission concluded that total investment needs in trans-European transmission energy infrastructure alone are around EUR 200 billion between 2021 and 2030.¹⁰ This initiative will also consider to what extent a revised TEN-E framework can further contribute to trigger these investments.

While the majority of the investments in TEN-E are expected to be financed by the market, mainly through regulated transmission tariffs, projects that are not commercially viable despite important socio-economic benefits need financial assistance for their implementation. Several EU financing instruments will help to address this financing gap. The Connecting Europe Facility (CEF) is foreseen to be the main mechanism for supporting the investments into the PCI projects. The revised TEN-E Regulation will broadly define the eligibility for the CEF funding. In addition, InvestEU and Just Transition Mechanism have been proposed to leverage financing for energy infrastructure to decarbonise the sector. Under the EU cohesion policy, for the post-2020 period, financial assistance has been proposed by the Commission to be limited to 'smart energy systems, grids and storage at local level'; however, the discussions are still on-going between the co-legislators. An important element for steering the private financing to help with the decarbonisation goal is the taxonomy framework for sustainable investments that has been developed. The exact implication on the different energy investments will be further defined during 2020.

Basis for EU intervention (legal basis and subsidiarity check)

The TEN-E Regulation is based on Article 172 of the Treaty on the Functioning of the European Union which provides for the legal base to adopt guidelines covering the objectives, priorities and broad lines of measures envisaged in the sphere of trans-European networks as set out in Article 171. Energy transmission infrastructure (including an interconnected offshore grid and smart grid infrastructure) has an European added value due to its cross-border nature or impacts and is essential to achieve a climate neutral energy system. Individual Member State regulations and actions are insufficient to deliver these infrastructure projects as a whole. From an economic perspective, energy network developments can best be achieved when planned with a European perspective, encompassing both EU and Member State action while respecting their respective competences. A bigger market can also better encourage development of innovative technologies for transmission, distribution and decarbonisation of energy as well as financing of large-scale investments such as those foreseen among the energy infrastructure priorities.

B. Objectives and Policy options

The general objective of the revision is to ensure that the TEN-E infrastructure framework is a key enabler towards the Union's decarbonisation objectives for 2030 and 2050, as outlined in the European Green Deal, while contributing to sector and market integration, security of supply and competition, as

⁹ In-depth analysis in support of the Commission Communication COM(2018) 773, https://ec.europa.eu/clima/sites/clima/files/docs/pages/com_2018_733_analysis_in_support_en_0.pdf

¹⁰ Ecofys (2017): INVESTMENT NEEDS IN TRANS-EUROPEAN ENERGYINFRASTRUCTURE UP TO 2030 AND BEYOND, Final report, http://publications.europa.eu/resource/cellar/431bc842-437c-11e8-a9f4-01aa75ed71a1.0001.01/DOC_1

set out in the Commission Work Programme 2020. The aim should be the integration of a significant increase in renewable energy in the European energy system while considering the energy efficiency first principle.

The specific objectives of this initiative are to ensure that PCIs fully contribute to the decarbonisation of the EU energy system, consistent with climate neutrality by 2050. It should be done *inter alia* by removing existing barriers for the selection and implementation of sector integration projects that contribute to the closer linking of the electricity and gas sectors, but also other sectors such as industry, heating and transport. Smart sector integration with well-coordinated and cross-sectoral infrastructure planning will be critical for the energy transition. This initiative should also foster the deployment of innovative technologies and infrastructure, such as smart grids, networks for hydrogen and other carbon neutral/renewable gases, carbon capture, storage and utilisation, and energy storage. Some existing infrastructure and assets will require upgrading to remain fit for purpose and climate resilient in a decarbonising energy system. The revised framework should further contribute to the timely implementation of PCIs.

The baseline option is “no change”, i.e. continuation with the current regulatory framework.

In addition, the impact assessment will look at options in the following areas:

- *New and updated infrastructure categories to enable the clean energy transition*, e.g. hydrogen and other carbon neutral/renewable gases (including by retrofitting/future-proofing of existing infrastructure), smart grids, offshore grids for hybrid assets, CO₂ storage sites;
- *New and updated priority corridors/thematic areas* in view of future needs, including cybersecurity and critical infrastructure, and the market uptake of innovative technologies;
- *Selection criteria for PCIs*: wider climate impact and reinforced sustainability criteria including the energy efficiency first principle and enhanced environmental criteria to ensure that the Union’s environmental acquis is fully respected;
- *Eligibility and criteria for CEF financial assistance*, e.g. alignment with new and updated infrastructure categories;
- *Selection procedure for PCIs*: cross-sectoral approach ensuring that energy efficiency and renewables potentials are reflected appropriately to identify cost-effective options (Ten Year Network Development Plan, “TYNDP”, cost-benefit analysis, “CBA”);
- *Governance*: adequate involvement of relevant stakeholders as well as streamlining and simplifying.

Based on the results from the on-going evaluation options concerning permitting/public participation, cross-border cost allocation and regulatory incentives may be considered.

C. Preliminary Assessment of Expected Impacts

Likely economic impacts

Stakeholders that would be most affected by this initiative are project promoters of energy infrastructure projects (both onshore and offshore), including Transmission System Operators (TSOs) and Distribution System Operators (DSOs), National Regulatory Authorities, energy infrastructure supply industries across all energy sectors as well as companies in the fields of digitalisation/cybersecurity. Energy infrastructure (e.g. hydrogen, CCS) is instrumental to support decarbonising the industrial sector.

The inclusion of new infrastructure categories could affect new stakeholders such as the hydrogen industry or the developers of offshore renewable assets. The possible exclusion of certain categories would have a direct effect on the sector as well.

This initiative would provide more certainty to investors and trigger new investments, foster the deployment of new and innovative technologies and contribute to employment and economic growth. It would also support the integration of new business models, services and technologies needed for a decarbonised system and support the efficient integration of renewable energy into the European energy system and thus increase domestic energy generation and reduce import bills. Energy infrastructure can have important regional/territorial impacts.

Likely social impacts

Social impacts of the initiative would be mainly related to distributional impacts. Depending on the financing source for the infrastructure investments, households could be affected by changes to network tariffs. The modernisation and upgrade of the energy system, including smart grids, would increase the efficiency of the energy networks with positive impacts on overall costs for energy consumers, including households. It could contribute to the mitigation of energy poverty through decreased prices, market access etc. This initiative would also contribute to energy security. Other social aspects are EU based

jobs in technologies that can be exported to other markets in areas of EU technology leadership such as offshore wind.

Likely environmental impacts

By fully aligning the TEN-E Regulation to the objectives of the European Green Deal, this initiative would help to put the necessary infrastructure in place as an enabler to achieve the 2030 energy and climate targets as well as the climate neutrality objective by 2050. The option to reinforce the sustainability criteria when selecting PCIs would support compliance with the environmental acquis.

Likely impacts on fundamental rights

No impact expected.

Likely impacts on simplification and/or administrative burden

The streamlining of the PCI selection procedure would result in a reduction of administrative burdens and compliance costs for project promoters. Moreover, this initiative will assess to what extent monitoring and reporting obligations could be reduced or streamlined in order to reduce administrative costs for affected stakeholders. It will also analyse if permitting procedures could be simplified to reduce administrative burden.

D. Evidence base, Data collection and Better Regulation Instruments

Impact assessment

An impact assessment is being prepared to support the preparation of this initiative and to inform the Commission's decision.

Evidence base and data collection

The data collection will include desk research, expert and stakeholder consultations, data analysis and quantification of the effects as well as modelling (when necessary).

The below is a non-exhaustive list of studies and resources that will be drawn upon in the evaluation and impact assessment.

- Commission report on the aspects of the performance of the TEN-E framework in accordance with Article 17 of the TEN-E Regulation as documented in the Commission Staff Working Document (SWD(2017)425) accompanying the Commission Delegated Regulation (EU) 2018/540, https://ec.europa.eu/energy/sites/ener/files/documents/swd_accompanying_pci_list_final_2017_en.pdf
- Study on the evaluation of the impact of PCIs implementation, Study for the DG Energy
- Study "Do current regulatory frameworks in the EU support innovation and security of supply in electricity and gas infrastructure?", <https://publications.europa.eu/en/publication-detail/-/publication/6700ba89-713f-11e9-9f05-01aa75ed71a1/language-en/format-PDF/source-96288082>
- Consolidated Report on the progress of electricity and gas Projects of Common Interest for the year 2017; ACER¹¹
- Mid-term evaluation of the Connecting Europe Facility: https://ec.europa.eu/info/publications/mid-term-evaluation-connecting-europe-facility-cef_en
- Investment needs in trans-European energy infrastructure up to 2030 and beyond, <https://publications.europa.eu/en/publication-detail/-/publication/431bc842-437c-11e8-a9f4-01aa75ed71a1>
- Cost-Effective Financing Structures for Mature Projects of Common Interest (PCIs) in Energy, <https://bookshop.europa.eu/en/cost-effective-financing-structures-for-mature-projects-of-common-interest-pcis-in-energy-pbMJ0716066/>
- Analysis of the manuals of procedures for the permit granting process applicable to projects of common interest prepared under Art.9 Regulation No 347/2013, May 2016; http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=MJ0116383
- The benefits of a meshed offshore grid in the Northern Seas region; https://ec.europa.eu/energy/sites/ener/files/documents/2014_nsog_report.pdf
- Study on grid infrastructure development: European strategy for raising public acceptance;

¹¹https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/Consolidated%20Report%20on%20the%20progress%20of%20electricity%20and%20gas%20Projects%20of%20Common%20Interest%20for%20the%20year%202017.pdf

https://ec.europa.eu/energy/sites/ener/files/documents/20140618_grid_toolkit_report_0.pdf

- Electricity TYNDP, <http://tyndp.entsoe.eu/>
- Gas TYNDP, <https://entsog.eu/tyndp#>
- ACER Report on unit investment cost indicators;
http://www.acer.europa.eu/official_documents/acts_of_the_agency/publication/uic%20report%20-%20gas%20infrastructure.pdf

More specifically, as for the information available on the implementation of PCIs, Article 5(1) of the TEN-E Regulation requires project promoters to draw up an implementation plan, including a timetable regarding feasibility and design studies, approvals by the National Regulatory Authorities and others, permitting, construction and commissioning. These implementation plans are publicly available on the PCI Transparency Platform¹². Moreover, the promoters of PCIs are obliged to provide yearly reports with detailed information on the progress of their projects to Agency for the Cooperation of Energy Regulators (ACER). On that basis, ACER prepares a comprehensive overview of the PCI implementation and reports to the Regional Groups.

Consultation strategy

The evaluation and impact assessment will include a consultation of citizens and stakeholders to gather their views and position on the TEN-E Regulation. Main stakeholders include transmission and distribution system operators, project promoters, national governments, ACER, National Regulatory Authorities, ICT industry, and NGOs, extending beyond the energy sector for sector integration aspects.

A web-based public consultation, open to the general public, will be carried out over a period of 8 weeks in April and May 2020. This will collect input on the different elements of the TEN-E Regulation and their impact on the policy objectives of the Regulation and options on how to improve possible shortcomings. The consultation will be available on the Commission's Have your say website¹³ in the 24 official EU languages.

The public consultation will be complemented by targeted consultation activities, including:

- Targeted interviews with specific stakeholders to collate more detailed qualitative responses and feedback to the evaluation questions and policy options;
- stakeholders/expert workshops to discuss different ideas in depth and exchange views.

A synopsis report that provides an overview of all views expressed during all consultation activities will be published as an annex to the impact assessment.

Will an Implementation plan be established?

It is not expected to establish an implementation plan since this initiative concerns a Regulation which is directly applicable and should not require further help to Member States for its implementation.

¹² http://ec.europa.eu/energy/infrastructure/transparency_platform/map-viewer/main.html

¹³ https://ec.europa.eu/info/law/better-regulation/have-your-say_en