

Response to the Targeted Consultation on the Revision of the TEN-E Regulation

A Eurelectric response paper

[July 2020]

Eurelectric represents the interests of the electricity industry in Europe. Our work covers all major issues affecting our sector. Our members represent the electricity industry in over 30 European countries.

We cover the entire industry from electricity generation and markets to distribution networks and customer issues. We also have affiliates active on several other continents and business associates from a wide variety of sectors with a direct interest in the electricity industry.

We stand for

The vision of the European power sector is to enable and sustain:

- A vibrant competitive European economy, reliably powered by clean, carbon-neutral energy
- A smart, energy efficient and truly sustainable society for all citizens of Europe

We are committed to lead a cost-effective energy transition by:

investing in clean power generation and transition-enabling solutions, to reduce emissions and actively pursue efforts to become carbon-neutral well before mid-century, taking into account different starting points and commercial availability of key transition technologies;

transforming the energy system to make it more responsive, resilient and efficient. This includes increased use of renewable energy, digitalisation, demand side response and reinforcement of grids so they can function as platforms and enablers for customers, cities and communities;

accelerating the energy transition in other economic sectors by offering competitive electricity as a transformation tool for transport, heating and industry;

embedding sustainability in all parts of our value chain and take measures to support the transformation of existing assets towards a zero carbon society;

innovating to discover the cutting-edge business models and develop the breakthrough technologies that are indispensable to allow our industry to lead this transition.

Dépôt légal: D/2020/12.105/45

Distribution and Market Facilitation Committee
Generation & Environment Committee
Markets & Investments Committee
WG Institutional Frameworks
WG Business Models & Network Customers
WG RES & Storage
WG Hydro
WG Wholesale Market Design & Investment Frameworks
WG Power & Gas interactions

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Targeted consultation on the revision of Regulation (EU) 347/2013 on guidelines for trans-European energy infrastructure (TEN-E Regulation)

Fields marked with * are mandatory.

Introduction

What is the TEN-E Regulation?

The European Green Deal confirms the EU's ambition to be climate neutral by 2050 and outlines a wide range of measures in different policy areas which need to be revised or newly introduced in order to meet this objective. In the energy sector, one of the key aims is to ensure that our energy infrastructure is fit for the purpose of achieving climate neutrality. In this sense, the Green Deal highlights the importance of smart infrastructure in this transition and specifically identifies the need to review and update the EU regulatory framework for energy infrastructure, including the Regulation (EU) No 347/2013 on guidelines for trans-European energy infrastructure (the "TEN-E Regulation"), to ensure consistency with the 2050 climate neutrality objective. As part of the political agreement between the European Parliament and the Council on the Connecting Europe Facility for the period 2021-2027 – the part of the EU budget which funds cross-border infrastructure projects for energy, transport and digital services – it was already agreed that the Commission should evaluate the effectiveness and policy coherence of the TEN-E Regulation. This revision of the TEN-E Regulation will also address the new policy ambition of the European Green Deal inter alia by integrating a significant increase in renewable energy in the European energy system and by putting the energy efficiency first principle into practice. More information on the European Green Deal is available on the [EC website](#).

The TEN-E Regulation lays down rules for the timely development and interoperability of cross-border energy infrastructure [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 (known as "PCIs") which interconnect the energy markets across Europe. Interconnected energy markets allow for 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 PCIs necessary to implement priority corridors and areas in the categories of electricity, gas, oil, smart grids and carbon dioxide networks.

More information on the TEN-E network is available on the [Europa website](#).

What is this survey about?

This survey is one of the elements of the wider stakeholder consultation strategy to inform about the revision of the TEN-E Regulation. The aim of this targeted survey is to collect information and gather views with respect to the implementation and functioning of the TEN-E Regulation from people with professional experience of how the current regulation works in practice. It also addresses forward looking questions as the evaluation is carried out in parallel with the impact assessment. Further background can be found in the Commission's [inception impact assessment](#).

Who should answer?

Professionals working for organisations involved in the design, implementation or permitting processes of energy infrastructure projects (notably Project Promoters of PCIs, National Regulatory Authorities and National Competent Authorities) or organisations with a strong interest in energy infrastructure and the topic it relates to.

It will only take approximately 30-40 minutes to complete this survey. Please note the information on the use of your input and personal data on the next page.

Your experience with the provisions of the TEN-E regulation in practice are of great value to us, which is why we would like to encourage you to provide explanations and examples in the open text boxes below the questions.

How is the survey structured?

The survey is structured in five main sections on (i) Effectiveness, (ii) Efficiency, (iii) Relevance, (iv) Coherence and (v) Value added by the EU Regulation.

The section on effectiveness is further broken down to collect your input on

- the permit granting process,
- public consultations,
- the PCI selection process,
- governance and the roles of different actors,
- cross-border cost allocation,
- and investment incentives.

How will this survey make a difference?

The survey aims to gather evidence to assess how the current TEN-E Regulation has worked in practice – which aspects have worked well, and not so well, and why – identifying factors which have helped or hampered achieving the objectives foreseen, and provide useful input for the Commission in the preparation of its revision. Your feedback will therefore help influence the future development of the regulatory framework for projects of common interest in the field of energy infrastructure.

Thank you for taking the time to respond to this survey – we highly appreciate your feedback! Should you have any questions concerning this survey or the study, you can contact us at TEN-E@ramboll.com.

Use of your input and personal data

Please refer to this document for the use of your personal data:

[TEN-E_personal_data.pdf](#)

Section 0: About you

Please indicate your name:

Martin Schoenberg

Please leave your email address:

mschoenberg@eurelectric.org

*** Please select the country in which you are based:**

- ☐ Austria
- ☒ Belgium
- ☐ Bulgaria
- ☐ Croatia
- ☐ Cyprus
- ☐ Czechia
- ☐ Denmark
- ☐ Estonia
- ☐ Finland
- ☐ France
- ☐ Germany
- ☐ Greece
- ☐ Hungary
- ☐ Ireland
- ☐ Italy
- ☐ Latvia
- ☐ Lithuania
- ☐ Luxembourg
- ☐ Malta
- ☐ Netherlands
- ☐ Poland
- ☐ Portugal
- ☐ Romania
- ☐ Slovak Republic
- ☐ Slovenia

- ☐ Spain
- ☐ Sweden
- ☐ United Kingdom
- ☐ (other) Non-EU country

*** Please select what type of organisation you represent:**

- ☐ National Regulatory Authority
- ☐ National Competent Authority (ministry or other governmental body)
- ☐ Transmission system operator
- ☐ Distribution system operator
- ☐ Energy producer
- ☐ Industry
- ☐ Telecom company
- ☐ Local or regional authority
- ☐ Civil society
- ☐ Research, academia
- ☒ Other (please specify):

Please specify the name of the organisation you represent:

The Union of the Electricity Industry - Eurelectric is the sector association which represents the common interests of the electricity industry at pan-European level, plus its affiliates and associates on several other continents. We currently have over 34 full members, representing the electricity industry in 32 European countries.

Section 1: Effectiveness of the Regulation

The TEN-E Regulation (hereafter: the Regulation) was designed to help overcome some of the key barriers to the development of European wide energy infrastructure. The key questions asked to assess the effectiveness of the Regulation therefore concern the extent to which it has achieved its objectives, and the factors that influenced this.

To what extent do you agree with the following statements regarding the TEN-E Regulation's overall impact?

	Completely agree	Agree	Neither agree nor disagree	Disagree	Completely disagree	Do not know
* Contributing to energy market integration throughout Europe	☒	☐	☐	☐	☐	☐
* Achieving an adequate security of supply level	☐	☒	☐	☐	☐	☐
* Contributing to competitiveness in the EU energy market	☐	☒	☐	☐	☐	☐
* Achieving the 2020 climate and energy targets	☐	☐	☒	☐	☐	☐

Please explain your answer:

Though, the TEN-E Regulation has delivered positive contributions to e.g. market integration, security of supply or competitiveness, these contributions must be assessed also in terms of consistency with EU long-term climate and energy objectives as well as cost-efficiency. Especially, the cost-efficiency of such contributions vis-à-vis that of other solutions available (e.g. storage or demand response enabled by smart grids) is unclear. In fact, considering that most of the actions were transmission assets (79% of total CEF funds granted), it indicates that the planning (TYNDP, CBA) was more about identifying transmission needs than system needs, for which transmission is just one of the solutions possible. Therefore, although the TEN-E has delivered positive contributions, these were not as cost-efficient as they could have been and, given available funds are limited, the lack of cost-efficiency translates into lower effectiveness (i.e. more actions / contributions could have been delivered from the funds available).

Looking ahead, the revision of the TEN-E (including infrastructure planning) should be consistent with the Green Deal Investment Plan, the NECPs, the Sustainable Finance Strategy and the EIB energy lending policy, while ensuring the most efficient solutions for the system needs identified are actually selected.

Further factors have also contributed positively to the TEN-E's impact: a common understanding of energy infrastructure needs across Europe; cross-border interconnection and cooperation support; data and knowledge sharing/exchange; increased political support for PCIs; access to EU funding, financial support for PCIs which otherwise would have had difficulties being realised; incentives to streamline procedures; development of smart grid technologies.

*** Which factors do you think have contributed to the achievement of the objectives? On the contrary, which factors have hindered the achievement of the objectives?**

The current TEN-E Regulation addresses many necessary issues for the successful development of trans-European networks. Hindering factors (not only related to the TEN-E):

- Missing public acceptance and political commitment for grid extensions, new powerlines as well as new generation and storage infrastructure.
- Missing differentiation between new projects (such as new lines or new routes) and the upgrade of existing projects
- Legal conditions requiring minimal threshold of 500 MW for power interconnectors caused in practice excluding distribution projects, especially internal ones
- Complicated and bureaucratic procedure
- Time consuming preparation of PCI projects in order to be successful;
- Lengthy project preparation;
- PCI status, which does not sufficiently speed up implementation;
- Administrative burden linked to PCI projects;
- Possible discrepancies in the interpretation of some provisions (e.g. as from which date runs the 3 ½ year period for authorisation procedures?);
- In Member States where a legal framework is already very demanding in terms of consultation, some requirements from the EU Regulation may lead to time-consuming redundancy with no real benefit. It should be foreseen that, in such cases, additional requirements should not apply when they do not create added value for the community;

To what extent do you agree with the following statements concerning the financing of energy infrastructure projects?

The Regulation helped to finance energy infrastructure projects by...

	Completely agree	Agree	Neither agree nor disagree	Disagree	Completely disagree	Do not know
* Making financing instruments available to finance PCIs.	☒	☐	☐	☐	☐	☐
* Increasing financing capacities of TSOs (ability to raise debt at a reasonable cost, ability to attract new institutional investors).	☐	☐	☐	☐	☐	☒
* Providing targeted EU financing under the Connecting Europe Facility.	☒	☐	☐	☐	☐	☐
* Other (please describe)	☐	☐	☐	☐	☐	☒

Please explain your answer:

The contribution of the TEN-E and the PCI status have increased tremendously the advancement of projects with high strategic value for the internal energy market. This core feature of the TEN-E should be appraised and preserved.

Section 2: Permit granting processes

Over time and since 2013, do you agree that the TEN-E Regulation has had a positive impact on shortening the duration of the permit granting procedure for PCIs?

- ☐ Completely agree
- ☐ Agree
- ☒ Neither agree nor disagree
- ☐ Disagree
- ☐ Completely disagree
- ☐ Do not know

Please explain your answer:

Permitting procedures still have different durations across the EU, often with lengthy procedures that are not beneficial for the investment climate and for the development of infrastructures necessary to achieve the EU energy and climate objectives. The fast track procedure for PCI projects was a good step but this is an aspect that might deserve additional attention in the future.

The PCI status allows projects to benefit of a fast track procedure but in general, permitting procedures have remained very long across Europe. We believe that the permitting aspects for projects concerned by the TEN-E Regulation and PCIs will deserve more attention and dedicated provisions in the upcoming review should aim at simplifying and speeding up the procedures. Clear and specific provisions should be implemented in order to ensure the acceleration of the permit granting process for all type of projects.

The current TEN-E regulation permit granting process takes mainly large projects into account. For these projects, Art. 10 leads to a quicker permit granting. The TEN-E lacks solutions of permit granting processes for smaller projects. All projects no matter their size should get a quick permit granting process once they receive PCI status. For smaller projects, the procedure is too time consuming, especially in the pre-application procedure.

There is no clear indication that PCI status has led to accelerated permitting procedures in all Member States to this point. Although PCI status may facilitate procedures in some Member States, it does not allow for reducing or speeding up work and tasks of the project promoter related to any national or EU permit granting regulation. This accounts, for example, for the constantly rising environmental requirements in permitting procedures (including the very time-consuming collection of environmental data, which in many cases is not available or not disclosed to the project promoter) or possibilities for legal actions both on national and EU level.

In addition, many PCI projects stayed on the list for a very long time, without being realised.

To what extent do you agree that the permit granting in 'one-stop shops' has...

	Completely agree	Agree	Neither agree nor disagree	Disagree	Completely disagree	Do not know
* Reduced complexity of the permit granting process?	☐	☐	☐	☒	☐	☐

* Increased efficiency in time and costs of the permit granting process?						
Increased transparency of the permit granting process?						
* Enhanced cooperation between Member States?						
* Would allow addressing challenges related to the permitting of infrastructure for offshore renewable energy projects?						

Please present your views with regards to possible changes which will help improve the process:

The success of the one-stop-shop varies across Member States and also between project structures. In general, the principle contains the potential for more efficient permitting – for PCIs and beyond. In countries that introduced the one-stop-shop principle even before the introduction of TEN-E and/or beyond PCIs, processes might be better established and learning curves for both project promoters and permitting authorities have led to a smoothening of the processes. Nevertheless, discussions on responsibilities and obligations remain; e.g.: Which authority is responsible for granting permits for assets related to the PCI, but that under national provisions are in the hands of local authorities rather than of the authority representing the one-stop-shop? In this context, it is also needed to clarify what steps need to be taken regarding PCI obligations, if another permitting entity is involved. These examples show that it is difficult to establish a sacrosanct one-stop-shop process for all eventualities; in any case, the designated one-stop-shop entity should be prepared to provide rapid guidance/assistance in case questions on the process arise, in order not to waste time for process-related questions in the course of a project.

Regulatory misalignment between different Member States (where present) still slow down the authorization process and PCI status does not overcome this obstacle, revision of TEN-E guidelines with the aim of tackling these issues is of paramount importance.

The most frequent reasons for delays, such as the duration of permit granting, should be a key focus in the evaluation. If the time schedule will be exceeded, the European Commission shall be notified immediately by the competent authority, whereas the latter shall duly justify the delay and suggest a new project timetable.

As permitting is still the most frequent reported reason for delays in the realisation of PCI projects, a revised TEN-E should further seek ways to accelerate permit granting. This could be achieved by highlighting the overriding public interest in permitting of all PCI projects, whereas also project related infrastructure and measures should be seen as integral elements of a PCI project - further leading to a swift, prioritised and streamlined permitting process of PCIs in Member States. For this purpose, the Commission should monitor the permitting process more closely and should enforce the time schedules for permitting foreseen in the regulation more strictly. Furthermore, the reporting to ENTSO-E and to the Commission for all non-network related PCIs should be adjusted to the technology at hand to reduce the bureaucratic burden and increase the informative value of the data.

To what extent do you agree with the following statements about the role of at least one public consultation introduced for PCIs?

The additional public consultation introduced for PCIs has...

	Completely agree	Agree	Neither agree nor disagree	Disagree	Completely disagree	Do not know
* Increased/improved public participation	☐	☒	☐	☐	☐	☐
* Increased awareness of PCI projects	☐	☒	☐	☐	☐	☐
* Increased trust among participants	☐	☒	☐	☐	☐	☐
* Increased public acceptance of PCI projects	☐	☒	☐	☐	☐	☐
* Led to improvements in the design of the projects	☐	☐	☐	☐	☐	☒

Please explain your answers, possibly comparing to other non-PCI projects:

Public consultation is indispensable in the permitting process, leading to increased public acceptance for the process and improvement of the overall project. Public consultation is one of the tools that support the smooth and fast realisation of the project. However, it has to be focused to fit the procedure and not to hamper it. Participatory measures usually entail different stages throughout the project process, without being statically linked to one particular phase of the project.

The parties active in the consultation are mostly entities that have already been active in the public discussions (market participants, NGOs). We support the increased possibilities for market parties to participate in PCI consultation, yet we do not think public consultation brought more potentially interested parties to the table.

At present, the consultation is carried out by the project promoter (most developers of PCI projects have been transmission system operators, despite the fact that PCIs can also involve project promoters other than TSOs) and during the pre-application phase, with the promoter ultimately preparing and submitting a summary report to the competent authority together with the application file. With regard to this, the competent authority should be in charge of the consultation or – as a second-best – receive not just the promoter's summary report, but also the responses to the consultation.

In addition, the stakeholders should be given the opportunity to express their views in relation to the application file – i.e. whether their initial concerns have been duly considered. This would increase transparency, promote public participation and help the competent authority to assess whether public concerns / social acceptance issues and the possibility of implementing alternative solutions have been properly tackled in the application file. This should be carried out directly by the competent authority.

Finally, it is important to make a reference to fully integrated network components, as defined in Art 2(51) of Directive 2019/944. As the services to be provided by these components would a priori be competing with other market-based facilities, it is paramount for the sake of transparency and efficiency to ensure that those competitors are allowed to take part in the consultation and that their concerns are directly delivered to the competent authority, as a significant conflict of interest exists.

*** To what extent would you agree that the input from the public consultation introduced by the TEN-E Regulation is/was used to guide the further development of projects?**

- ☐ Completely agree
- ☒ Agree
- ☐ Neither agree nor disagree
- ☐ Disagree
- ☐ Completely disagree
- ☐ Do not know

Please explain your answers, possibly comparing to other non-PCI projects:

Results of public consultations are generally taken into account for the further advancement of the project, but at different times and under different formats, depending on the specific permitting regime of the Member State.

*** To what extent do you agree that the requirement for at least one public consultation is enough for increasing transparency and participation in the design and planning of the**

projects?

- ☐ Completely agree
- ☐ Agree
- ☒ Neither agree nor disagree
- ☐ Disagree
- ☐ Completely disagree
- ☐ Do not know

* Please explain your answers, possibly comparing to other non-PCI projects:

An effective coordination of the planning and operation of infrastructure is key. Public consultation is indispensable in the permitting process, leading to increased public acceptance of the process and improvement of the project. Public consultation is one of the tools that support the smooth and fast realisation of the project. However, when it comes to the designing of projects, this should be done exclusively by the project promoter.

Section 4: PCI selection process

To what extent do you agree with the following statements concerning the PCI selection process?

	Completely agree	Agree	Neither agree nor disagree	Disagree	Completely disagree	Do not know
* PCIs selected are the most relevant projects to the fulfilment of the TEN-E objectives.	☐	☐	☐	☒	☐	☐
* Cost-benefit assessments for the selection of PCIs are using an appropriate methodology.	☐	☐	☐	☒	☐	☐

Please explain your answers:

Selected electricity PCIs, mostly electricity transmission projects have played an important role in the development of interconnections, market integration, security of supply as well as renewable penetration. However, other projects have also contributed to the below objectives without being flagged as PCI. In that regards, one can regret the very limited amount selected of smart grids projects mostly because of a restrictive design. To achieve decarbonisation targets, new types of assets, services and decentralized projects at the level of the distribution grids need to be further supported and included in the scope. This is especially the case for smaller scale electricity projects to reflect the new needs induced by decentralization, decarbonisation and digitalization features of the energy system.

Moreover, considering the lifespan of the investments, the TEN-E objectives must be consistent with the EU climate and energy goals both for 2030 and 2050. Hence, sustainability should be the overriding criterion, but this has not been the case so far. The establishment of priority projects is mostly assessed on the basis of one TYNDP's scenarios (out of three) which reflects more a "business as usual" approach rather than an ambitious approach towards renewable integration objective or sustainability. In addition, there is no empirical evidence showing a posteriori that the projects included in the PCIs list have contributed the most to the TEN-E Regulation targets.

The PCI selection depends on the TYNDP, which in turn depends on the scenarios developed by the ENTSOs themselves as the benefits of any project depends largely on the scenario considered. Hence, a conflict of interest issue might arise. ENTSOs define through the TYNDP the needs for specific projects (basically transmission) rather than the wider system needs. However, at present system needs can be fulfilled with different technologies (transmission, storage or demand side response enabled by smart distribution grids / digitalization). The analysis of what is the most suitable solution for each system need is apparently not carried out.

As regards CBA-methodologies market participants do not have information on the CBA and other conditions of the proposed investments. Thus, one can only rely on the competence of national authorities to ensure that the selected projects are the best and implemented in the most cost-effective way. Much remains to be done in terms of transparency (e.g. replicability) and quantitative comparability between projects (e.g. further monetisation). In this regard, the CBA methodologies or any document, models being used should be communicated to allow third parties to run independent analysis.

The current CBA methodology needs to be adapted due to the renewed decarbonisation targets ("Green Deal objectives") of the European Commission.

Alternative arrangements are needed to disclose the most efficient solution to system need(s). It is important to note once again that the analysis of what is the most suitable solution for each system need is at present not carried out (PCIs selected from the TYNDP). These issues will become more critical with the Energy System Integration (e.g. need to determine in a more coordinated manner how the infrastructures of each energy vector should evolve).

To what extent do you agree that the role of the different actors listed below is adequate in the selection procedure?

	The role is adequate	The role should be weakened	The role should be strengthened	Do not know
* European Network of Transmission Systems Operators for Electricity and Gas (ENTSO-E /ENTSO-G)	☐	☒	☐	☐
* Agency for the Cooperation of Energy Regulators (ACER)	☐	☐	☒	☐
* European Commission	☐	☐	☒	☐
* Regional Groups	☐	☐	☒	☐
* National Regulatory Authorities (NRA)	☐	☐	☒	☐

* National Competent Authorities (NCA)	☐	☐	☒	☐
* Transmission systems operators (TSO)	☒	☐	☐	☐
* Distribution system operators (DSO)	☐	☐	☒	☐
* Other stakeholders (NGOs, energy industry, telecom companies, trade associations, finance community, etc.)	☐	☐	☒	☐

Please explain your answers and, if applicable, elaborate on how the role of actors should change.

- **ENTSOs:** The role should be weakened
 - Combining within the same document a clear, transparent and exhaustive analysis of possible European energy future is a complex task and should be rigorously designed. The technical expertise of ENTSOs should be recognized.
 - The prominent position of ENTSOs throughout the process should be counterbalanced by an increased participation of stakeholders and an independent oversight especially to check the fulfillment of policy targets, scenarios, methodologies ,the objectives of the TEN-E regulation and especially the decarbonisation objectives.
 - The robustness of deliverables and proposed infrastructure investments, provided by ENTSOs need to be challenged and amended if necessary.
- **ACER:** The role should be strengthened
 - ACER should be empowered to make sure that TYNDP scenarios, and orientations are aligned with the decarbonisation targets and the objectives of the regulation, taking into account the level of maturity of all technologies.
 - ACER should be empowered to issue binding guidelines on the Scenario Development Report, the CBA and TYNDP scen. For such guidelines, stakeholders should be consulted and opinion taken into account in the design.
 - ACER should be empowered to approve the ENTSO's proposal on the CBA methodology (documents, models) and have the possibility amend when deemed non-compliant. Stakeholders should be consulted and requested to provide inputs on the CBA methodology.
 - Additional resources in terms of manpower should be made available to ACER to ensure this new role. This is the key condition to ensure an efficient oversight which shall not make more complex and burden the current administrative process. Maximum timeline for issuing the guidelines should be also established.
- **Regional Groups:** The role should be strengthened
 - Transparency on the role, composition and decision taking of the regional groups should be increased. DSO associations and the DSO entity should be represented at each relevant groups (not only to the one dedicated to Smart Grids).
- **European Commission :** The role should be strengthened.
 - The European Commission should ensure the consistency between the different sources used to elaborate the NECPs. During the last TYNDP 2020 process, we noticed the NECPs were combining many assumptions based on different data forecasts concerning fuel and CO2 prices.
 - The European Commission should ensure consistency of the TYNDP scenarios with the 2050 and climate neutrality objectives. As guardian of the "long term" the EC should has a right to object if TYNDP scenarios are found not compliant with 2050 climate neutrality path.
 - The European Commission should be empowered to ask ENTSOs additional sensitivity scenarios for the purpose of the identification of system needs and the selection of most appropriate solutions.

- NRAs : The role should be strengthened
 - NRAs should be closely involved and consulted along the new competences dedicated to ACER.
 - NRAs should be empowered to approve and amend the national Network development plans in countries where it is still not the case.
- TSOs : The role is adequate

TSOs shall make sure to include DSOs and relevant stakeholder's inputs during the construction of the national planning scenarios that will ultimately feed the bottom-up scenario of the TYNDP. National regulators shall closely monitor the consultation and co-construction process at national level, between TSO and DSOs and other stakeholders.
- DSOs: The role should be strengthened
 - Since integration of systems is not limited to the TSO level, there is need for a greater role of DSOs in the TYNDP process. DSOs should be closely involved into the development of the TYNDP scenarios and in the selection of PCIs , starting from the scenario building exercise. DSOs have an overview on the sources connected to their grid (EV, DER, heat pumps) aswell as technologies that will provide flexibility to the energy system (batteries, networks digitalisation, Demand Side Response, Power-to-gas...) DSOs can provide useful assumptions as regards peak demand and the impact of flexible demand.
 - The future DSO entity should be treated on equal footing as ENTSOs along the process. The tasks and responsibilities of DSOs towards the process should be legally defined.
 - At national level, there is a need to coordinate the planning between DSOs and associated TSOs. DSOs should be mandatory involved and consulted into the process of National development plans ran by TSOs.

To what extent do you agree with the following statements concerning the gas and electricity EU-wide Ten-Year Network Development Plans (TYNDPs)?

	Completely agree	Agree	Neither agree nor disagree	Disagree	Completely disagree	Do not know
* The current framework is fit for purpose.	☐	☐	☐	☒	☐	☐
* The electricity and gas market and network models are sufficiently interlinked (e.g. scenarios and cost-benefit assessment).	☐	☐	☐	☒	☐	☐
* The current framework does sufficiently match the need for system integration, i.e. the consideration of sectors other than gas and electricity.	☐	☐	☐	☒	☐	☐
*						

The TYNDPs do reflect enough coordination with distribution level networks.						
* The relevant actors are involved in the TYNDP processes and their respective roles are adequate.						
* The TYNDPs do reflect sufficiently energy efficiency aspects.						

Please explain your answers:

* The Framework

The current framework and governance of the TYNDP is not fit for reflecting the ongoing transformation of the energy system. This concern is bound to increase due to:

- the 2050 carbon-neutrality goal, which changes completely the outlook for fossil-based energy vectors, including natural gas;
- energy system integration, led by technology evolution that enables new choices for customers; and
- fully integrated network components, defined in Art 2(51) of Directive 2019/944, which potentially compete with market-based services.

In this sense Eurelectric recommends:

- The electricity and gas market and network models must be fully integrated in order to fully capture their complementarity. Furthermore, additional energy vectors (e.g. hydrogen, heat) must be also incorporated.
- The aim of the market and network models, applied on the scenarios, must be to identify system needs rather than specific transmission projects to be developed. The selection of specific projects for each system need must consider all the technologies / solutions available (i.e. CBA of each alternative; definition of the selection criteria)
- The TYNDP scenario methodology should first aim at defining the possible scenarios in term of energy demand in order to 1) integrate the decarbonisation objective and 2) identify energy-specific needs (electricity specific uses, gas specific uses, district heating, etc.).
- TYNDP's scenarios should be technology neutral and provide a wider range of possible futures to test the energy infrastructure under more extreme circumstances. Additional sensitivities should be included in the scenario to assess any change in technological solutions.
- There should be more differences between TYNDP scenarios.

More details on needed adjustments of the TYNDP could be found here : https://cdn.eurelectric.org/media/4154/entsos_2020_tyndp_scenarios_consultation-2020-030-0025-01-e-h-95795F7E.pdf

* Interlinkage of gas/ electricity

- The role of flexibility assets is should be more depicted into the CBA and scenarios. All possible flexible power assets (e.g. hydro storage and pump, batteries, fuel cells, DSR, smart charging) should be considered to meet the electricity demand in these situations.
- Peak demand and reserve margin/flexible capacity needs should also be made available, taking market-based demand response possibilities and different technical capabilities of generation resources available across Europe fully into account.
- The main scenario for a CBA for transmission and storage projects should be compliant with the EU 2050 decarbonisation objectives. The (CBA) scenario is currently performed on the basis the National Trend scenario only – which is not Paris Agreement compliant. This is not acceptable given that the CBA is the sole basis for the selection of Project of Common Interests.

- Transparency should be increased on the approach used to define CBA parameters.

* System integration

Ongoing common scenarios and interlinked modelling processes between ENTSO-E and ENTSG reflect significant methodological advancements of TSOs at national and European level.

- The growing interactions between 1) all sectors (i.e. sector integration), 2) electricity and gas (i.e. sector coupling) and 3) the replacement of fossil fuels by zero-emission alternatives need to be taken into account.
- TYNDP scenarios should take better into account the different starting points and commercial availability of key transition technologies.
- The level of details related to the decarbonisation of the transport, heating and cooling sectors , power-to-gas, hydrogen power to district heat (electricity demand in the transformation sector) and power to liquid (especially for aviation, shipping and heavy duty vehicles) should be increased.

* Coordination with distribution level networks

- Investments needs in the distribution should be better reflected in the TYNDP scenarios. Most of future investments will occur at the distribution grid level, with most of the DER, EV, electrification of heat and transport happening at low and medium voltage.
- The coordination between DSO associations and ENTSOs should be improved . TYNDP should include more granular data to reflect the situation at the distribution grid level. DSO can provide specific data in areas such as regard distributed energy generation capacity, electricity demand trajectories (EVs, heat pumps, peak demand).
- * The relevant actors are involved in the TYNDP processes and their respective roles are adequate.
- Eurelectric encourages the ENTSOs to continue and strengthen the consultation process. It is crucial for stakeholders to have the opportunity to actively contribute to the definition of the ENTSOs' assumptions and hypothesis ahead of the final consultation on the draft TYNDP scenarios.
- More workshops between ENTSO-Es, ENTSO-G and stakeholders should be organized.

To what extent do you agree with the following statements on the selection criteria for projects of common interest?

	Completely agree	Agree	Neither agree nor disagree	Disagree	Completely disagree	Do not know
* The general selection criteria are appropriate.	☐	☐	☐	☒	☐	☐
* The specific selection criteria for electricity transmission projects are appropriate.	☐	☐	☐	☒	☐	☐
* The specific selection criteria for gas projects are appropriate.	☐	☐	☐	☐	☐	☒
* The specific selection criteria for electricity smart grid projects are appropriate.	☐	☐	☐	☒	☐	☐

* The specific selection criteria for carbon dioxide transport projects are appropriate.	☐	☐	☐	☐	☐	☒
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If you disagree, please specify changes you consider necessary:

General selection criteria

o The sustainability criteria should be reinforced and become an overriding principle. Any type of project should be assessed along the amount of CO₂ emissions it will emit over its expected lifespan. CO₂ emissions threshold or CO₂ emissions savings should be defined along a carbon-neutral scenario (not a business as usual scenario) under which projects should be eligible. Considering the long life time, the potentiality for a project of becoming a stranded asset should be carefully assessed as the system progresses towards carbon neutrality.

o The cross-border criteria should be simplified: The current definition appears as a hindrance for specific types of projects such as smart grids. In 2017, only 4 smart grid projects were identified as PCI out of 170. The current cross border criteria is not future proof with the wider decentralization and digitalization going on, and the decarbonisation objective.

- Local projects may have positive effects on the wider system. Bottlenecks due to local congestion, consequences from natural disasters are increasing as systems and networks, even local, are becoming more interconnected across the EU.

- Demand side response (DSR) can have a cross-border impact (e.g. substitute for cross-border transport), although it must be enabled by a smart distribution grid, which in most cases involves just one MS and a small relative size.

o A cross-border criteria is still relevant, but it needs to be adapted. The European added value could be assessed based on:

- The replicability potential rather and on synergies expected rather than by their geographical scope, which makes little sense when it comes to DSO, digital or DSR projects.

- The participation of at least one member States without necessarily involving a physical common border. Cross-border connection may be fulfilled virtually (e.g. by means of data platform).

Electricity transmission

o The selection criteria for electricity could be improved. For instance, the current requirement regarding capacity calculation is not relevant when it comes to offshore projects.

o The minimum voltage level (Art 2) should be lower to 110kv instead of 150kv).

o A additional criteria could be added on " Grid System cost reduction: it will entails end users energy cost savings, through the minimization of the cost to build, operate and maintain the grid also by considering non-wire alternative solutions.

Storage

• Current criteria require project provides at least 225 MW installed capacity poses very high entry barrier.

• The eligibility criteria should be lower to 50MW to support storage project with local character. Storage systems can contribute to the European balancing network which and bring a cross-border impact.

Electricity smart grid projects

• Today the SG criterias are too complex and do not reflect the needs of distribution grids projects A new definition of Smart grid is needed. Low and medium voltages network should be included in the description of the SG infrastructure because the electrification of heat and transport aswell as the increasing connections of new customers categories such as prosumers, EVs, storage happens mostly at low voltage. Resilience and reliability dimension should be included into the definition.

- Article 4 , Annex II Annex IV should be revised and envision less restrictive selection criteria,
- o The cumulative fulfilment of 6 criteria for smart grids projects should be removed : Most of specific criteria's are relevant for DSO projects – however the cumulative fulfilment is very cumbersome and restrictive. This condition can be rewrite to “contribute significantly to one of the criteria and contribute with the others).
- o A new criteria can be introduced to address the logical (no technical) coordination: (I bis) interaction with new agents (aggregators, market operators) to increase the capacity of the grid interacting with the users.
- o Ranking of smart grid project by Regional Groups should take into consideration a new criteria related to penetration of decarbonized transport or heating.

Annex IV –1 e) : Indicators should enable the participation of smaller-scale projects :

- o Remove mandatory TSO participation and become optional. Projects at MV or LV do not necessarily have an impact on TSO grids.
- o Include the low voltage level (voltage < 10 Kv and $\geq 0,4$ kV) – the majority of smart grid projects will be on the low voltage.
- o Decrease the amount of users: 500 users instead of 50 000 users – in some countries, very few DSOs have 50 000 users.
- o Decrease the amount of consumption area : 5 GWH/year instead of ≥ 300 GWH/year
- o Include an alternative to the renewable integration criteria (which should be maintained) such as ratio related to penetration of EV or heat pump penetration. Current ratio of renewable share is difficult to meet for some Member States.

To what extent do you agree that projects of mutual interest with third countries should be included in the revised TEN-E framework?

	Completely agree	Agree	Neither agree nor disagree	Disagree	Completely disagree	Do not know
* Projects of mutual interest, i. e. projects with third country that benefit only one Member State, should remain outside the TEN-E framework.	☐	☐	☐	☐	☐	☒
* Projects of mutual interest should be included in the TEN-E framework...	☐	☒	☐	☐	☐	☐
* ...subject to specific eligibility and selection criteria,	☐	☒	☐	☐	☐	☐
* ...subject to a specific selection process	☐	☒	☐	☐	☐	☐
* ...subject to specific conditions for regulatory						

measures and access to financial assistance would apply.	☐	☒	☐	☐	☐	☐
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Please specify your answer:

The rationale for the TEN-E Regulation is to help building the infrastructure required for the internal market, including the collaboration with members of the Energy Community, neighbouring countries or strategic energy partners. The revised TEN-E regulation should take into account the contribution of third countries and to ensure the continuous eligibility of electricity cross border projects, all complying with European environmental and climate standards.

Specific eligibility criteria and selection process needed, because the whole project would not be covered by the regulation and other relevant EU rules. (2030, 2050 targets, ETS, Industrial Emissions, Environmental Standards, State aid Guidelines, etc.)

A specific and rigorous approach to mutual interest projects is required in order to avoid the risk of causing a negative impact on EU energy, environmental and climate ambitions and a significant market distortion (e.g. unfair competition) which would put at stake the investability in the EU and even the social acceptance of the EU goals.

Projects with third countries should be included provided that:

- o The project contribute to the EU 2030 and 2050 targets, especially renewable and decarbonisation objectives.
- o TEN-E shall not support projects with third countries who do not comply with EU environmental standards (e.g. NordStream). For instance, attention should be paid to the fact that EU funds shall not finance third countries that do not face the same environmental obligations.

Third countries can provide competitive balancing capacity, clean energy to Europe and therefore contribute to the EU's energy and climate objectives for 2030 and 2050 through high renewables penetration. In this regards, it is particularly important to ensure the market integrity across Northern Ireland and Ireland borders and regardless of Brexit.

The further development of transmission capacities is paramount to ensure an optimal integration of higher share of renewables in the system and further deliver the EU energy and climate objectives. For instance, the acceleration of offshore projects will require that the offshore grid does not become a bottleneck, and the revised TEN-E needs to take this into account by prioritising projects that contribute to this.

Section 5 Governance and the roles of different actors

To what extent do you agree with the following statements concerning the effectiveness of the PCI monitoring and implementation planning procedures?

	Completely agree	Agree	Neither agree nor disagree	Disagree	Completely disagree	Do not know
* Current reporting and monitoring procedures on the PCI progress [popup box: i.e. Activity Status Reports, ACER monitoring reports, Transparency Platform etc.] are sufficient to ensure transparency on PCI development.	☐	☐	☒	☐	☐	☐
* PCIs implementation plans and the regular updates ensure timely project implementation.	☐	☐	☒	☐	☐	☐

Please explain your answer:

The PCI status of PCI projects with CEF grant should not be renewed every two years, as this causes unnecessary administrative work for project promoters.

The Transparency Platform is crucial not only in scope of TEN-E but also in regards to the whole market monitoring. In general, the transparency levels can be considered sufficient, however the Transparency Platform lacks some information.

Section 6: Cross-border cost allocation

*** To what extent would you agree that CBCA decision processes and outcomes enable effective investment decisions?**

- ☐ Completely agree
- ☐ Agree
- ☐ Neither agree nor disagree
- ☐ Disagree
- ☐ Completely disagree
- ☒ Do not know

*** Please explain your answer, possibly comparing with other means of taking CBCA decisions:**

There is no information about this. With the possible addition of new areas to the TEN-E Regulation as well as new PCI categories, careful consideration should be given to whether the current approach of TSOs and regulators remains adequate and whether EU co-financing instruments (e.g. CEF) continue to be sufficient.

Section 7: Investment incentives

According to Article 13 of the TEN-E Regulation, incentives can be provided for PCIs which are exposed to higher risks than normally incurred by a similar infrastructure project, and for which a net positive impact is confirmed by the CBA.

*** To what extent would you agree that investment incentives enable effective investments in PCIs?**

- ☐ Completely agree
- ☐ Agree
- ☒ Neither agree nor disagree
- ☐ Disagree
- ☐ Completely disagree
- ☐ Do not know

Please explain your answer:

As regards DSOs, the absence of funding could lead consumers to bear the costs of the project through higher tariff. Where incentives are lacking, CEF access could be useful to trigger investment.

Incentives should not only be provided at EU level (esp. via CEF) but also by national regulatory systems to enable the required investments. This precondition is not restricted to incentives according to Article 13 of the TEN-E Regulation. It is of utmost importance that in general the national regulatory framework provides enough stipulation for investment projects.

It should be also pointed out that the framework for regulatory incentives should reflect the evolving nature of needed investments and the costs. In this regards, investments in digitalization and OPEX areas should be equally incentivized as CAPEX.

Please specify your answer:

Section 8: Efficiency of the Regulation

The evaluation of the efficiency of the Regulation considers the extent to which the resources used to implement the Regulation and achieve its objectives are used as efficiently as possible (with lowest possible resources /costs). In the case of the TEN-E Regulation, this mainly relates to the costs and benefits for NRAs and project promoters with regards to the implementation of the Regulation.

*** To what extent do you agree that the benefits of the provisions in the TEN-E Regulation outweigh the costs?**

- ☐ Completely agree
- ☐ Agree
- ☒ Neither agree nor disagree
- ☐ Disagree
- ☐ Completely disagree
- ☐ Do not know

Please explain your answer:

Some aspects of the TEN-E Regulation result in a reduction of administrative burdens (e.g. one stop shop solution for certain projects, especially on the TSO level), whereas others create significant additional administrative burdens (e.g. frequent selection process, monitoring exercises, one stop shop for projects at DSO level).

The TEN-E Regulation is basically aimed at tackling the coordination failures between MS when planning and investing in infrastructure. Hence, when properly implemented, benefits clearly outweigh costs.

However, there are implementation issues that must be tackled:

- The TEN-E should be consistent with the Green Deal Investment Plan, the NECPs, the Sustainable Finance Strategy and the EIB energy lending policy.

- In this sense, infrastructure planning (TYNDP, CBA) should also be aligned with the requirements of the EU energy and climate objectives, which at least means that:
 - a) the planning process should identify system needs and, out of the range of available technical solutions (e.g. transmission, storage, demand side response / smart distribution grids, etc.), determine what is the most efficient;
 - b) for the sake of an efficient Energy System Integration, substitutability between energy vectors must be duly considered in order to identify the most efficient infrastructures and avoid redundancies; and
 - c) the implementation of the sine qua non sustainable criteria must be therefore embedded in the PCI selection criteria.
- Such a change in the infrastructure planning requires a revised governance for its elaboration. While the technical capability of the ENTSOs is recognised, existing and new conflicts of interest prevents them from playing a central role in decision making (also in terms of TYNDP and CBA).
- Finally, TEN-E must ensure a level playing field:
 - o Infrastructure cannot be a shortcut for competitive services missing economic signals. It is key to avoid past mistakes with emerging energy vectors (e.g. hydrogen storage must be from the very start treated as a competitive activity not subject to central planning but to market forces).

Can you identify any opportunities to simplify the legislation or reduce unnecessary costs without undermining the intended objectives of the Regulation?

- We propose to start a review of the regulation at macro level, focusing on the justification of the areas of projects of common interest covered by the TEN-E regulation. Further opportunities can be tackled by:
- Shorten/simplify and reduce the rhythm of PCI selection process and limit corresponding meetings to the necessary minimum;
 - Re-evaluate if prescribed steps in permitting are still needed or if they – in the meantime – have been adopted by all Member States as state-of-the-art and are no longer necessary on a European level;
 - Inclusion of low-voltage projects.

* To what extent do you agree that the current reporting and monitoring procedures on the PCI progress can be simplified and still fulfill their purpose?

- ☐ Completely agree
- ☒ Agree
- ☐ Neither agree nor disagree
- ☐ Disagree
- ☐ Completely disagree
- ☐ Do not know

Please explain your answer:

There is room for improvement. Not all questions in the PCI monitoring process are relevant. The new SWITCH application has some serious flaws and could be more user-friendly. Maybe one could try to reduce overlaps and redundancies in reporting between PCI monitoring, transparency platform and PCI selection process.

Section 9: Relevance of the Regulation

The evaluation of the relevance of the TEN-E Regulation assesses the extent to which the TEN-E Regulation and its objectives appropriately respond to the changes in energy infrastructure needs and in the policy context (such as the climate neutrality objective under the European Green Deal).

To what extent do you agree that the following issues are currently well addressed by the Regulation?

	Completely agree	Agree	Neither agree nor disagree	Disagree	Completely disagree	Do not know
* Integration of renewable energy sources into the electricity network	☐	☐	☐	☒	☐	☐
* Integration of renewable energy sources into the gas network	☐	☐	☐	☐	☐	☒
* Support of electrification of transport through appropriate grid infrastructure	☐	☐	☐	☒	☐	☐
* Smart sector integration	☐	☐	☐	☒	☐	☐
* Energy transition for fossil fuel regions	☐	☐	☐	☒	☐	☐
* Climate change mitigation	☐	☐	☐	☐	☐	☒
* Climate resilience of energy infrastructure	☐	☐	☐	☒	☐	☐
* Improving energy efficiency of the energy system	☐	☐	☐	☒	☐	☐

If you ticked 'Completely disagree' or 'Disagree': How do you think the Regulation should change to better address these issues?

Integration of Integration of renewable energy sources

- Specific emphasis should be put on multi sectoral synergy projects such renewable Cross-Border Projects. For instance, projects aiming at maximising the deployment and integration of offshore renewables to two or more countries could be prioritised.
- Renewable energy integration is not only achieved through transmission projects, but also through storage, smart grids and/or demand side response.
- The general eligibility criteria should be revised and the scope smart grids categories be broaden to match

the specificities of smaller, decentralized infrastructure projects (see dedicated section)

- Eligibility criteria should support the deployment of digital technologies and process with the aim to increase the smartness of the system, higher renewable penetration and sector integration. The scale up of mature technologies meeting a certain technology readiness level should be supported. This would include for instance digital platforms, microgrids, smart meters, sensors, software and hardware tools aiming at active coordination of grid users, including data communication (ICT).

Electrification of transport :

- The development of the charging infrastructures should be included in the TEN-E regulation, via a dedicated thematic area or specific objectives / criteria for smart grids projects (such as the EV penetration). It implies to broaden the scope of smart grid projects to LV and MV projects.

- The revised TEN-E and TEN-T Regulations should be clearly articulated and coordinate the coherent planning and construction of the European electricity infrastructure in order to decarbonise the end-using sectors (Examples of synergies include TSO 2020(hydrogen) and SYNERG-E).

- Specific emphasis should be put on electricity projects, including smart charging, cross border grids or renewables for EV charging

- Collaboration between project holders, charging operators and DSOs in both TEN-T and TEN-E planning process would help to identify the best charging locations and charging modes, allowing to anticipate changes to the grids and connection points and minimize the costs and waiting times of projects.

Smart sector integration

- Priority should be given to integration of renewable energy and system flexibility projects. Projects fostering electrification and direct use of electricity should be the preferred option.

- Only when flexibility options within the electricity system have been exhausted, attention should be shifted towards renewable gas and sector coupling/integration solutions.

- The transformation of an infrastructure fit for renewable and decarbonised gases should be based on the repurposing of the existing network to avoid stranded investments and to ensure a cost-efficient transition while also reflecting the complexity, uncertainty and ongoing innovation. The decarbonisation impact and the monetization of each new investments should be clearly explained and taken into account into a revised CBA methodology.

- The construction of new infrastructure could become necessary in specific places to successfully build-up a grid for renewable and decarbonised gases, as long as it contributes to a cost-effective and future-proof decarbonisation pathway. This shall be backed by robust and solid assumptions.

- Effective coordination of the planning and operation of infrastructure of the different energy carriers should be ensured. The increasing importance of potential substitutability and synergies between the electricity and gas infrastructures should be considered.

- A sustainability indicator in monitoring of gas markets should be included by ACER to guide decisions to prioritise solutions towards reducing the use of unabated fossil gas in line with EU decarbonisation commitments.

Energy transition for fossil fuel regions

- The purpose of TEN-E is to identify and planify the investment in assets needed into the future. The facilitation of the energy transition for fossil fuel regions should be covered by the Just Transition Fund to avoid overlaps. Coordination should be ensured between different planning tools such as NECPs, just Transition plans.

Climate resilience of energy infrastructure-

- The definition of energy security should be redefined to take into account cybersecurity, natural disasters and climate risk.

- Cybersecurity and resilience should be embedded into the general objectives and declined in selection criterias and towards measurable indicators for each project and infrastructure categories.

Improving energy efficiency:

- The CBA methodology should incorporate also the benefits on the energy efficiency side. When several solutions are available for a system need identified, the selection criteria should duly consider the impact of each solution on energy efficiency. All types of flexibility resources and technologies should have the

possibility to compete for the provision of the identified system need.

To what extent would you agree that the TEN-E Regulation has been relevant in supporting the development of the following infrastructure categories?

	Completely agree	Agree	Neither agree nor disagree	Disagree	Completely disagree	Do not know
* High-voltage overhead transmission lines	☐	☒	☐	☐	☐	☐
* Electricity storage facilities	☐	☐	☒	☐	☐	☐
* Safety and efficiency installations for electricity	☐	☐	☒	☐	☐	☐
* Smart grids	☐	☐	☐	☒	☐	☐
* Transmission pipelines for natural gas and biogas	☐	☐	☐	☐	☐	☒
* Underground gas storage facilities	☐	☐	☐	☐	☐	☒
* reception, storage and regasification or decompression of liquefied natural gas (LNG) or compressed	☐	☐	☐	☐	☐	☒
* natural gas (CNG)	☐	☐	☐	☐	☐	☒
* Safety and efficiency installations for gas	☐	☐	☐	☐	☐	☒
* Pipelines for crude oil	☐	☐	☐	☐	☐	☒
* Oil pumping and storage facilities	☐	☐	☐	☐	☐	☒
* Safety and efficiency installations for oil	☐	☐	☐	☐	☐	☒
* Dedicated carbon dioxide pipelines	☐	☐	☐	☐	☐	☒
* Facilities for liquefaction of carbon dioxide and buffer storage	☐	☐	☐	☐	☐	☒
*						

Safety and efficiency installations for carbon dioxide	☐	☐	☐	☐	☐	☒
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*** Which of the challenges would you say are most important to address in the field of energy infrastructure today, compared to the situation in 2013? Please select up to 3 most important challenges.**

at most 3 choice(s)

- ☐ Public opposition to projects
- ☐ Regulatory cross-border challenges
- ☐ Energy infrastructure investments
- ☐ Digitalisation
- ☐ Market fragmentation / market integration
- ☐ Competitiveness of the EU energy market
- ☐ Environmental due diligence in the preparation, permitting and implementation of project
- ☐ Energy system integration
- ☒ Integration of renewable energy sources
- ☐ Commercial viability of projects
- ☐ Cross-border/regional cooperation
- ☒ Energy efficiency first principle
- ☒ Greenhouse gas emission reductions / climate neutrality
- ☐ Energy financing capacity of TSOs
- ☐ Other (please specify)
- ☐ Permit-granting procedures
- ☐ Security of supply

*** Which of the challenges would you say are least important to address in the field of energy infrastructure today, compared to the situation in 2013? Please select up to 3 least important challenges.**

at most 3 choice(s)

- ☐ Commercial viability of projects
- ☐ Energy financing capacity of TSOs
- ☐ Environmental due diligence in the preparation, permitting and implementation of project
- ☐ Digitalisation
- ☐ Competitiveness of the EU energy market
- ☐ Security of supply
- ☒ Market fragmentation / market integration
- ☐ Regulatory cross-border challenges
- ☐ Energy system integration
- ☐ Integration of renewable energy sources
- ☒ Cross-border/regional cooperation
- ☐ Permit-granting procedures
- ☐ Other (please specify)
- ☐

- ☐ Energy infrastructure investments
- ☐ Energy efficiency first principle
- ☐ Public opposition to projects
- ☐ Greenhouse gas emission reductions / climate neutrality

Which features do you consider the most important for a project of common interest (PCI) as part of trans-European energy network?

	Important	Important to a large extent	Important to a small extent	Not important	Do not know
* Integration of renewable energy sources into the grid	☒	☐	☐	☐	☐
* Contribution to greenhouse gas emissions reduction / fully consistent with climate neutrality 2050	☒	☐	☐	☐	☐
* Security of supply	☒	☐	☐	☐	☐
* Market integration (e.g. to reduce infrastructural deficits and increase system flexibility)	☒	☐	☐	☐	☐
* Increase competition on the market	☐	☐	☐	☒	☐
* Innovation	☐	☐	☐	☒	☐
* Environmental due diligence in the preparation, permitting and implementation of project	☐	☐	☐	☐	☒
* Generation of direct benefits to the local communities	☐	☐	☒	☐	☐

Which of the following infrastructure categories do you consider relevant for the regulatory framework on trans-European energy networks?

	Relevant	Relevant to a large extent	Relevant to a small extent	Not relevant	Do not know
Electricity infrastructure (transmission lines and storage)	☒	☐	☐	☐	☐
Grids for offshore renewable energy	☒	☐	☐	☐	☐
Smart electricity grids	☒	☐	☐	☐	☐
Smart gas grids	☐	☐	☐	☐	☒

Natural gas infrastructure (pipelines and storage)	☐	☐	☐	☐	☒
Liquefied Natural Gas (LNG) terminals	☐	☐	☐	☐	☒
Dedicated hydrogen (H2) networks	☐	☐	☐	☐	☒
Infrastructure for the integration of renewable and carbon neutral gases	☐	☐	☐	☐	☒
Power-to-gas installations	☐	☐	☐	☐	☒
CO2 networks (for transporting CO2)	☐	☐	☐	☐	☒
Geological storage of CO2	☐	☐	☐	☐	☒

The TEN-E Regulation presents nine Priority corridors: North Seas offshore grid (NSOG), North-south electricity interconnections in western Europe (NSI West Electricity), North-south electricity interconnections in central eastern and south eastern Europe (NSI East Electricity), Baltic Energy Market Interconnection Plan in electricity (BEMIP Electricity), North-south gas interconnections in Western Europe (NSI West Gas), North-south gas interconnections in central eastern and south eastern Europe (NSI East Gas), Southern Gas Corridor (SGC), Baltic Energy Market Interconnection Plan in gas (BEMIP Gas), Oil supply connections in central eastern Europe (OSC).

The TEN-E Regulation also presents three Priority thematic areas: Smart grids deployment, Electricity highways, and Cross-border carbon dioxide network.

For more information, see: https://ec.europa.eu/energy/topics/infrastructure/trans-european-networks-energy_en?redir=1

To what extent do you agree with the following statements concerning priority corridors and thematic areas?

	Completely agree	Agree	Neither agree nor disagree	Disagree	Completely disagree	Do not know
* Priority Corridors reflect the current infrastructure needs	☐	☐	☒	☐	☐	☐
* Priority Corridors are fit for purpose for future challenges to the energy infrastructure	☐	☐	☒	☐	☐	☐
* Priority Thematic Areas reflect the current infrastructure needs	☐	☐	☐	☒	☐	☐
* Priority Thematic Areas are fit for purpose for future						

Please explain your answer:

Priority Corridors

- The definition of priority corridors is sometimes outdated - objectives and activities should be considered and brought into line with developments brought by the Clean Energy Package, the Green Deal and 2050 carbon neutrality objective. In times of digitalisation and decentralisation, the concept of priority corridors should be enlarged by a digital concept. In case of large-scale transmission projects, revised TEN-E Regulation should focus on offshore grid development, including energy connection infrastructure between the offshore wind farms and onshore transmission system.

Priority Thematic Areas

- Energy storage and flexibility assets are missing in the priority thematic. A specific PCI category for market-based infrastructure, i.e. non-network related PCI flexibility & storage projects should be introduced. The opportunity to have storage projects eligible to the PCI status should be thoroughly assessed, taking into account two key elements: on the one hand, the impact of the need for new network investments. On the other hand, storage, contrary to distribution or transmission projects, is as a general rule not a regulated asset and is in competition with other sources of flexibility, including demand-side response and generation, not being eligible to the PCI status.
- The Smart Grid priority thematic area should be expanded to include sector integration technologies and solutions, heating and cooling networks as well as e-mobility. It should include projects both on medium and low voltage enabling further renewables integration, demand side response appliances, replacing of overhead cables with underground ones, storage, as well as smart grid development including flexibility, developed considerably over the past years due to digitalization of the electricity sector
- To date, CO2 infrastructure has not reached the level of commercial use, and it is more appropriate to use other EU instruments (such as the Innovation Fund) to develop and deploy this technology.

Section 10: Coherence of the Regulation

Coherence is about the extent to which the objectives and the implementation of the activities related to the Regulation are non-contradictory (internal coherence), and do not contradict other activities with similar objectives (external coherence). Questions relate to whether there are any internal inconsistencies in the Regulation itself, as well as the degree to which it is coherent with other (EU) initiatives with similar objectives and its situation in the wider EU energy policy field.

*** Can you identify any overlaps, inconsistencies within the TEN-E Regulation (including in its measures and objectives)?**

- ☐ Yes, there are overlaps, inconsistencies or incoherencies
- ☐ No, the Regulation is coherent overall
- ☒ Do not know

Please state your opinion on the following statements regarding the consistency between the TEN-E Regulation and other policies/ initiatives at EU, international, and

national level:

	Inconsistencies, or conflicts with the Regulation	Consistent with the regulation	Do not know
* The Clean Energy Package / the Energy Union	☒	☐	☐
* The European Green Deal / Long Term Strategy for Decarbonisation	☒	☐	☐
* Trans-European transport networks (TEN-T)	☒	☐	☐
* EU environmental acquis (habitats, water, etc.)	☐	☒	☐
* EU Digital Strategy	☐	☐	☒
* EU Industrial Strategy	☐	☐	☒
* Paris Agreement	☒	☐	☐
* UN Sustainable Development Goals	☐	☐	☒
* Commission communication on a stronger and renewed strategic partnership with the EU's outermost regions (COM(2017)623 final)	☐	☐	☒
* EU neighborhood policy	☐	☐	☒

* Please specify your answer, if possible, mentioning specific measures of the Regulation:

The current TEN-E Regulation is not in line with the EU energy and climate targets as well as the EU's long-term decarbonisation commitment. Especially, there are inconsistencies with the scenarios of the EU long term strategy as well as with the Clean Energy Package, whose core elements decentralization, digitalization as well as energy efficiency are not reflected in the current TEN-E. A revised TEN-E Regulation would have to reflect the EU's energy and climate targets for 2030, the EU long-term decarbonisation commitment, and the energy efficiency first principle. The decarbonisation of Europe's power sector is achievable by 2045 and will underpin the wider decarbonisation of the EU economy for which especially electrification will be a crucial driver. This transition will encompass very significant investments in carbon neutral power generation, industrial and energy efficiency solutions, digitalisation, various flexibility enablers (such as storage, electromobility, demand-side management), negative emission technologies, low, medium and high voltage networks as well as the entire spectrum of smart grid solutions.

The EU environmental acquis is completely consistent with the TEN-E regulation as all individual projects have to go through comprehensive permitting procedures (concentrated Environmental Impact Assessment procedures guarantee the compliance with the whole environmental acquis, specifically with the EU water legislation, the EU Habitats and Birds Directives as well as regional and national nature protection laws).

In addition, it is paramount to consider that the objective of the TEN-E is not to foster innovation, but an efficient development of infrastructures compatible with the 2030 and 2050 EU energy and climate goals. Innovation is the objective for other measures, e.g. the Innovation Fund. Having this in mind, the TEN-E

must ensure a level playing field for all the available solutions possible for each system need – a basic principle established all along the Clean Energy Package (e.g. see Art. 3(j) Regulation 943/2019). Similarly, the TEN-E should neither be used as a measure to directly achieve the innovation-related goals included in the Digital or Industrial Strategy. However, the definition of priorities, infrastructure categories and selection criteria should ensure that the solutions compatible with the goals of those Strategies are not discriminated against – e.g. smart grids are key for DSR from industries and digitalization, thus the TEN-E should not ex-ante exclude them as a potential solution for the system needs identified.

The TYNDP is key for an efficient application of the TEN-E provisions. However, it is focused on identifying transmission needs rather than system needs, although such needs could also be satisfied with other technologies (e.g. storage, demand response enabled by smart grids, etc.). This is a major distortion for an efficient application of the TEN-E, as PCIs must be projects that are part of the TYNDP. In fact, this would be contrary to the level-playing field principle established all along the Clean Energy Package (e.g. see Art. 3(j) Regulation 943/2019).

Section 11: EU added value of the Regulation

EU added value concerns the extent to which changes can reasonably be argued to be a result of the EU intervention, over and above what could reasonably have been expected from national actions. Thus, it considers whether and to the extent to which it is justified in terms of the results it brought about compared to what could have been achieved by Member States themselves; and the extent to which the issues addressed by the TEN-E Regulation still require EU intervention (or, in other words, what the consequence of stopping the EU intervention would be).

* What do you think has been the EU added value of the TEN-E Regulation, compared to what could have been achieved if legislation on energy infrastructure networks only existed at national or regional level?

- ☒ Regional cooperation
- ☒ Cooperation gains
- ☒ Improved regulatory certainty
- ☒ Increased transparency
- ☐ Increased acceptance of energy infrastructure projects
- ☐ Enhanced compliance with environmental requirements
- ☐ Greater speed and/or effectiveness of delivery of projects
- ☒ Certain projects could not have been implemented otherwise
- ☒ Access to financing (e.g. Connecting Europe Facility)
- ☐ Other, please specify

Please specify your answer:

On the following aspects, the answer is “partially yes”:

- Improved regulatory certainty
- Increased acceptance of energy infrastructure projects

There is currently a huge investment gap across Europe when it comes to energy infrastructure (esp. into grids, storage, charging infrastructure, renewables). Reflecting the subsidiarity principle, the TEN-E

Regulation deals with coordination failures between Member States, which act as a barrier for facilities with a significant cross-border impact. Hence, the added value of the TEN-E Regulation should consist in:

- A pan-European energy planning that identifies system needs in the cross-border sphere and assess the whole range of possible solutions / technologies to satisfy such needs.
- The direct benefits of deploying certain facilities with a significant cross-border impact that, otherwise, would not have been developed. Access to EU funds (under strict conditions and without distorting the markets) is a key enabler for that deployment.
- Carrying such deployment under an effective, stable and transparent regulatory framework, which shortens the projects' lead-time and increases investors' confidence.
- Exploiting synergies with the TEN-T.

In practice, the added value of the TEN-E has been so far significantly hindered by a lack of consistency with the 2030 and 2050 EU energy and climate goals, and issues with the planning and selection of solutions (e. g. smart grids). In addition, synergies with the TEN-T have not been exploited.

Would the same results have been achieved legislating at national and/or regional level?

	Completely agree	Agree	Neither agree nor disagree	Disagree	Completely disagree	Do not know
* The TEN-E Regulation has achieved more results than what could have been achieved legislating at national and/or regional level.	☐	☒	☐	☐	☐	☐
* The issues addressed by the TEN-E Regulation continue to require action at EU level.	☒	☐	☐	☐	☐	☐

Please explain your answer:

Section 12: Final questions

Would you be willing to take part in a follow-up interview to provide further feedback for the evaluation?

- ☒ Yes
☐ No

Please note that while we will do our best to contact everyone who wishes to participate in the interviews, we retain discretion on selection in order to achieve proportional representation.

*** Do you agree with the use of your email address to reach out for follow-up interviews?**

- ☒ Yes
☐ No

If you did not do so in the beginning, could you please include your email for us to contact you to schedule a follow-up interview:

Do you have any comments, remarks or information regarding this survey that you would like to share?

Other Eurelectric publications in the context:

10 Key Points for a Revised Trans-European Energy (TEN-E) Regulation : https://cdn.eurelectric.org/media/4418/10_key_points_for_a_revised_trans-european_energy_ten-e_regulation_-2020-030-0257-01-e-h-405AB1B8.pdf

Reply to the impact assessment/ roadmap on TEN-E : https://cdn.eurelectric.org/media/4480/eurelectric_reply_to_the_impact_assessment-2020-030-0374-01-e-h-30F4A089.pdf

Response to TYNDP 2020 Scenarios Consultation : https://cdn.eurelectric.org/media/4154/entsos_tyndp_scenarios_consultation-2020-030-0025-01-e-h-95795F7E.pdf

Sector Integration :

- https://cdn.eurelectric.org/media/4478/m_an_eu_strategy_for_smart_sector_integration-2020-030-0372-01-e-h-D7BF8E9D.pdf

- https://cdn.eurelectric.org/media/4484/m_consultation_on_energy_system_integration-2020-030-0375-01-e-h-02F020D1.pdf

TEN-T policy Brief : https://cdn.eurelectric.org/media/4502/eurelectric_ten-t_policybrief_final-2020-030-0416-01-e-h-3AA36CE2.pdf

Value of the Grid : <https://cdn.eurelectric.org/media/3921/value-of-the-grid-final-2019-030-0406-01-e-h-D1C80F0B.pdf>

E-invest The power sector investment challenge:100 Billion per year and counting: <https://cdn.eurelectric.org/media/4014/e-invest-final-h-56C0048D.pdf>

Please share any relevant documents and data that would be useful for the purposes of our evaluation.

We kindly ask if you could please reflect all inputs, including those that are in your position papers, in the responses to the survey questions.

The maximum file size is 1 MB

Thank you very much for taking the time to answer this survey. Once you click “submit” below, your answers will be saved and sent. You will still be able to make changes if you reopen the survey link invitation sent to your email address.

Your answers will be treated fully confidentially and not be shared with anyone else.

If you have any questions about this survey, please contact TEN-E@ramboll.com.

Contact

ener-b1-projects@ec.europa.eu

Eurelectric pursues in all its activities the application of the following sustainable development values:

Economic Development

- Growth, added-value, efficiency

Environmental Leadership

- Commitment, innovation, pro-activeness

Social Responsibility

- Transparency, ethics, accountability



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