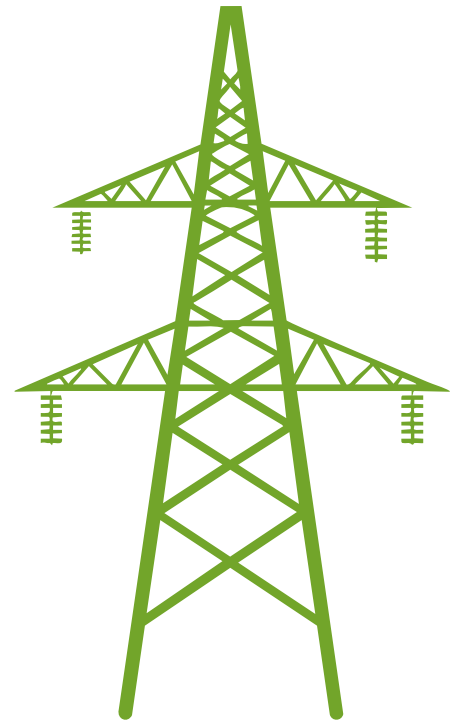


Five things you need to know about the revision of the TEN-E Regulation in the European Grids Package



On 10 December 2025, the European Commission published the [European Grids Package](#), including a proposal for revision of the [Trans-European Networks for Energy \(TEN-E\) Regulation](#).

The revised TEN-E Regulation will have far-reaching implications for Europe's electricity grid planning, governance and investment framework. This explainer aims at enhancing clarity of key concepts in the European Grids Package, strengthening its implementability and contributing to its success.



What is the TEN-E Regulation?

The TEN-E Regulation governs how the EU identifies, selects and supports cross-border energy infrastructure, including electricity grids. It establishes and governs the framework for Projects of Common Interest (PCIs) and Projects of Mutual Interest (PMIs), and sets the rules for the Union-wide network planning.



Why does it matter?

Infrastructure investment decisions taken today will shape Europe's energy system for decades, and Europe's ability to respond to the evolving geopolitical, technological and economic landscape. The [2022 TEN-E Regulation](#) provides a framework that enables an assessment of possible and plausible futures, based on which, energy projects are prioritised and investments are directed.

This makes the legislation a key instrument for delivering on EU climate and energy targets and objectives, accelerating renewables integration, enabling direct electrification and deepening the internal energy market, thus, contributing to European resilience, competitiveness and affordability.

Q1 / Why does purpose matter?

A central question for the revised TEN-E Regulation is what the framework is ultimately for; the answer shapes every choice that follows. While the TEN-E Regulation may be seen as simply serving the identification of PCIs and PMIs, the Ten-Year Network Development Plans (TYNDP) were initially conceived as long term planning tools, in which, anticipation, risks and uncertainties are central elements.

In practice, scenarios developed under the TEN-E Regulation and the TYNDP inform a much wider range of processes; from national electricity grid and energy planning to regulatory decisions and investment strategies across sectors. Therefore, the TYNDP scenarios should not be treated in a simplistic and reductionist way, only for selection of PCIs and PMIs, but a more ambitious approach towards a European system planning should be followed.

In Focus

The scale of what is at stake is significant. Since 2010 more than **16000 km** of inter-connection transmission lines have been built in Europe. The European Commission estimates that **€584 billion** in electricity grid investments is needed by 2030 and **€1.2 trillion** by 2040. At the same time, until 2040, **€6 billion** investment in electricity grids per year would provide **€13 billion per year in system cost reduction**¹.

¹ ENTSO-E, 'Opportunities for a more efficient European power system by 2050 – 2025 Infrastructure Gaps Report', accessible [here](#).

Q2 / What is the central scenario and what is it for?

The proposal for the revised TEN-E Regulation introduces a 'central scenario' i.e., a European Commission-developed scenario for the electricity, hydrogen and fossil gas, aimed to be used for the Union-wide TYNDP, the infrastructure needs identification process, the energy system wide cost-benefit analysis and the cross-border cost allocation of energy infrastructure projects.

Such a central scenario at the EU level could offer benefits as long as it serves as energy policy reference for the selection of PCIs and PMIs. An energy policy scenario can provide political direction, aligned with the EU 2030 and 2040 climate and energy targets and the 2050 climate neutrality objective. Developed in cooperation with Member States and building on latest national plans and strategies, such as the National Energy and Climate Plans (NECPs), it can strengthen coherence between EU-level and national planning, improve the quality of NECP data, deepen the Single Market and deliver a clearer EU-wide view of the future energy mix.

In Focus

The concept of a central scenario is not entirely new. The **ACER TYNDP Scenarios Framework Guidelines** already envisage the development of a central scenario with sensitivities developed around two different economic growth variants. However, the TEN-E Regulation is now undergoing revision, while the scenario introduced in the ACER Guidelines is being implemented and tested in practice for the first time in the 2026 TYNDP cycle.

Q3 / Is a central policy scenario enough to plan the European energy system and guide investment decisions?

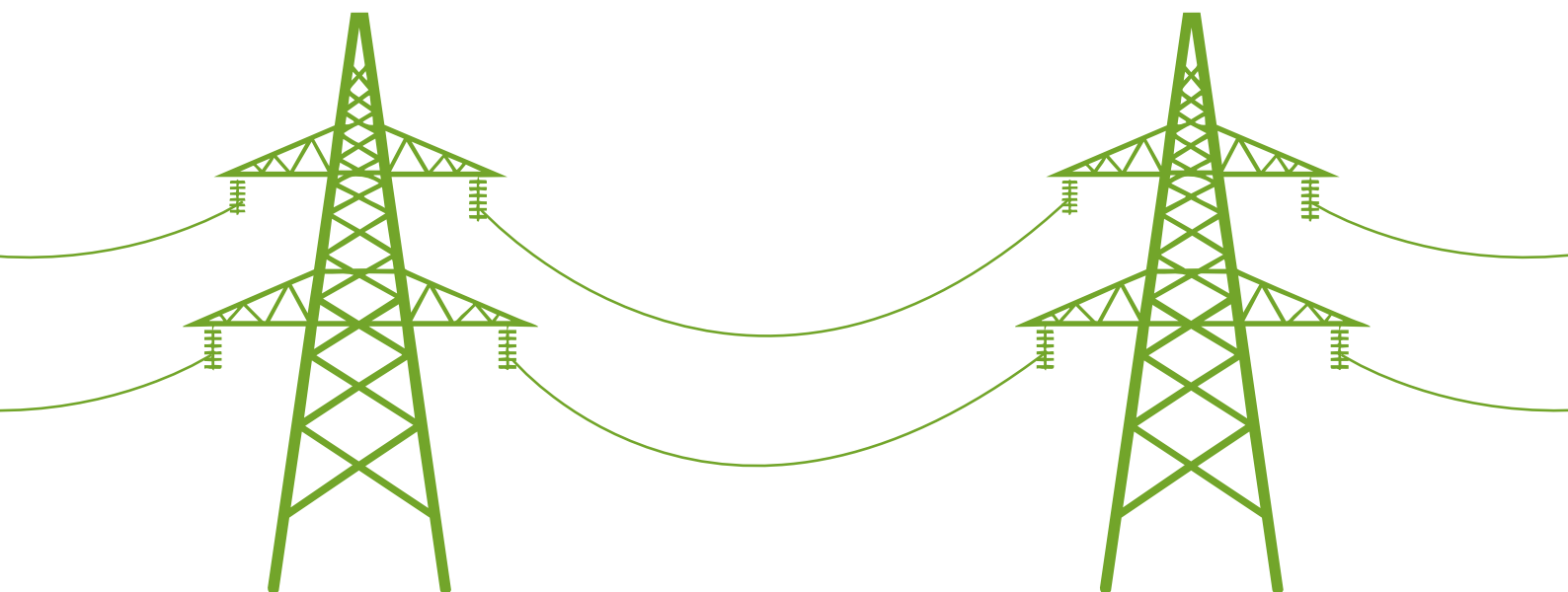
A central energy policy scenario provides strategic direction but is not, by itself, sufficient to underpin the granular work of system planning. One should clearly distinguish between policy direction, and technical and modelling feasibility. The latter requires modelling grounded in operational realities that differ significantly across Member States and cannot be fully captured in a scientific exercise disconnected from system engineering capabilities of system operators.

This distinction calls for a clarification in the legal text between a *central energy policy scenario* setting political direction, complemented by *technical modelling scenarios*, which align with and translate that policy direction into system modelling. Such connection between both modelling exercises would ensure credibility and robustness, while respecting the subsidiarity principle and improving data quality throughout the process. At the same time, stronger regional collaboration, including among TSOs, NRAs and Member States, is essential to reflect cross-border potential and needs as well as to build the trust required to ensure implementability.

In Focus

Europe's experience over the past decade is a strong reminder that system planning is fundamentally about **managing uncertainty, not predicting a single future**. The current energy price crisis, Russia's invasion of Ukraine and the subsequent energy crisis, and the disruptions of COVID-19 showcase the complexity of systems in an evolving world.

While the central energy policy scenario can be developed every four years, as the European Commission proposal suggests, the technical modelling scenarios should be updated regularly – **every two years** –, to remain responsive to rapid technological change, economic developments and geopolitical uncertainty. A framework designed to accommodate **possible and plausible futures**, through a robust set of technical scenarios and sensitivities, has the potential to **make infrastructure decisions future-proof**.



Q4 / Who is involved in the system planning and how?

System planning requires a holistic approach, based on:



Up-to-date and operable data and robust assumptions

The robustness and coherence of the central energy policy scenario, of the technical modelling scenarios and infrastructure needs identification that follow from it, depend on the quality of the data collected. Jointly specifying data requirements between the European Commission and the ENTSOs, as the organisations responsible for developing the energy policy scenario and the technical modelling scenarios, respectively, would maximise effectiveness and strengthen complementarity.



Meaningful and timely engagement of stakeholders across the energy system value chain

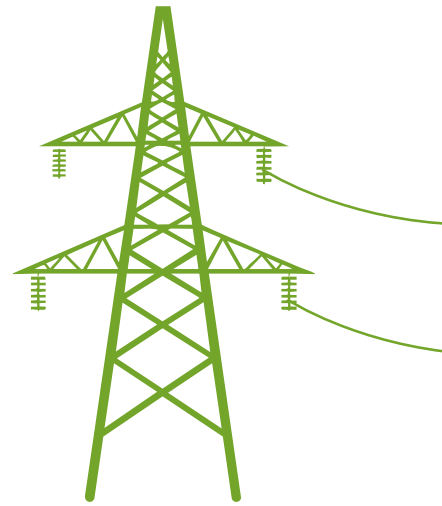
The proposal assigns the (energy policy) scenario development to the European Commission, with a consultation process involving the TEN-E Group, EU Member States, ACER, national regulatory authorities, the ENTSOs and the EU DSO Entity.

While this goes in a good direction, it is important to maintain and leverage progress made on stakeholder engagement during the implementation of the 2022 TEN-E Regulation and ACER TYNDP Scenarios Framework Guidelines. This implies engaging with a wider range of stakeholders including [the Stakeholder Reference Group \(SRG\)](#), the European Scientific Advisory Board on Climate Change (ESABCC) and civil society representatives, based on robust structures and with sufficient time for input. Acceleration can go hand in hand with meaningful engagement and consultations should go beyond mere information sharing. Such an approach would enhance transparency and legitimacy as well as stakeholder support for the scenarios.

In Focus

The SRG has been mandated in the [ACER TYNDP Scenarios Framework Guidelines](#) and established in 2023. As of May 2026, it brings together **25 organisations** from across the energy sector aiming at providing **expert and independent input** to the development of the TYNDP scenarios. The [SRG's opinion on the 2026 TYNDP scenarios](#) demonstrates important inputs that increase robustness and transparency of this process, and confirm the added value that meaningful stakeholder engagement can bring.

As the proposal repeals the 2022 TEN-E Regulation, it would consequently repeal SRG's mandate – a proven mechanism for structured, cross-sectoral engagement in the scenario development process.



Q5 / Going further: What does the proposal not yet fully address?

Europe is the fastest warming continent and, already today, faces severe impacts of climate change. At the same time, physical and digital security of infrastructure becomes increasingly relevant in view of the geopolitical landscape. These evolving risks should be integrated across electricity grid development and operations, and their financial implications should be duly considered.

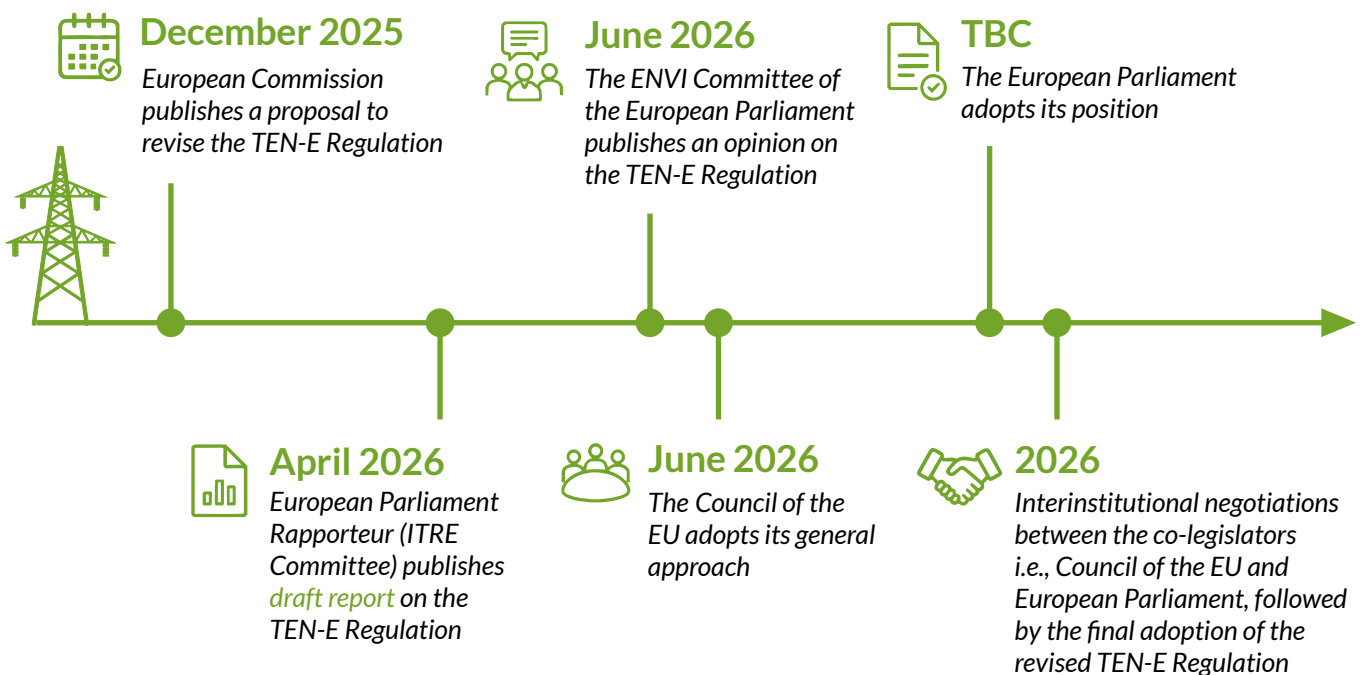
In Focus

Regulation (EU) 2019/941 on risk-preparedness in the electricity sector already establishes a common framework for EU Member States to **prevent, prepare for, and manage electricity crises** in a spirit of solidarity and transparency.

The upcoming **Integrated Framework on European climate resilience and risk management** should extend grid and system resilience to **cover climate change impacts, extreme weather events and critical infrastructure protection**.

Such considerations should be **systematically embedded into the TEN-E Regulation**, ensuring that energy infrastructure decisions are assessed also through the lens of security and resilience.

Indicative co-legislative timeline for the TEN-E Regulation revision



Disclaimer:

All statements in this document are reflections based on RGI Secretariat's understanding of three expert discussions that were organised between February - April 2026, with a wide range of stakeholders across the energy system. The statements expressed in this document shall not be considered to reflect the formal views of any specific organisation, including RGI Members.