

T&D Europe Reaction to the European Grids Package

Proposals for amendments

March 2026

The European Grids Package is crucial to the success of the Clean Industrial Deal. Grid investments are a no-regret solution, as they enhance Europe’s resilience, are a critical enabler of Europe’s decarbonisation targets, and strengthen Europe’s competitiveness by continuing to provide clean, secure and affordable electricity to European consumers and industry. The Commission proposal is a step in the right direction.

A European clean energy system needs to be in place to serve households and industry with affordable, reliable and sustainable electricity. Distribution and transmission grids are the backbone of the electricity system, and their cost-effective physical expansion, digitalisation and modernisation are instrumental in supporting industrial electrification, competitiveness and decarbonisation. Building such a future-proof energy system would, inter alia, help to reduce the bill of more than EUR 4 billion in grid congestion management costs.¹ This requires the EU and Member States to follow through on their commitments on long-term planning and to invest in the extension and modernisation of Europe’s energy

¹ ACER, [Transmission capacities for cross-zonal trade of electricity and congestion management in the EU 2024 Market Monitoring Report](#), 3 July 2024, p.4

infrastructure, in particular in distribution, both at medium and low voltage, and transmission grids.

Key points:

1. The Central Scenario: A step towards more strategic integrated planning

The proposed **central scenario (Article 11, 2025/0399(COD)) is a welcome first step to more strategic integrated planning**. Grid development faces regulatory complexity, a lack of commitment, bureaucratic hurdles, skilled worker shortages, and political uncertainty. Effective planning requires a system-wide perspective across all voltage levels. The central scenario – if done properly with the involvement of all current and future grid users as well as the Member States – can help strike the right balance to enable this system-wide approach.

The Ten-Year Network Development Plan (TYNDP), focusing on the structural development of the transmission grid, should be complemented by a system development plan defining how Europe’s future power system shall be operated. In a system increasingly based on both geographically centralised and highly distributed generation and characterised by reduced stabilising inertia, such a plan should identify the technical requirements across all voltage levels and the timeline for their implementation. In particular, it should clarify the necessary digital infrastructure to ensure secure and reliable system operation.

2. Recognising digitalisation and innovation

The Grids Package recognises **non-wire solutions** (Article 2, 14, 24, 29, Annex VII, 2025/0399(COD)) as a distinct category of solutions, which is an important signal and should translate in an accelerated digitalisation of Europe’s electricity networks.

Digitalisation is essential to managing the growing complexity of energy transition. It enhances transparency, optimises operations, improves asset utilisation, and supports renewable integration through smart technologies, advanced planning tools, and grid indicators. Digitalisation also enables the deployment of artificial intelligence and generative AI applications, enhances local flexibility, and facilitates variable grid tariffs, making it a cornerstone of an intelligent and competitive European grid.

3. Further inclusion of distribution grids

The current proposal places primary emphasis on transmission infrastructure. While it acknowledges that approximately **60% of the €1.2 trillion grid investment** required by 2040 will be directed toward distribution grids, the Grids Package provides limited measures specifically addressing the development and modernisation of these grids.² This represents a missed opportunity to more fully support the decentralised and flexible energy system that Europeans need.

As the energy transition progresses, consumers and prosumers are increasingly playing a central role in the electricity system. At the same time, distributed energy resources such as flexible demand, grid-connected buildings, and microgrids are expanding. In this context, distribution networks are becoming essential enablers of system integration and flexibility. The ongoing discussions on the Grids Package could therefore benefit from a **broader system perspective** that considers system approach across all voltage levels.

4. Five-year visibility and alignment with NECPs

The introduction of a central grid scenario for all voltage levels should provide clear visibility for at least the **next five years**. Such predictability regarding planned infrastructure development, as well as expected demand for equipment and technologies, is important to support investment planning, supply chain coordination, and workforce and skills development.

Alignment with **National Energy and Climate Plans (NECPs)** across all voltage levels is key. Together with complementary industrial planning that clarifies the anticipated demand for grid technologies, NECPs should increasingly function as operational investment frameworks, providing greater clarity and predictability for investors, industry and citizens.

5. Strategic guidance and measurable KPIs

The Grids Package should provide clear strategic guidance, supported by a coherent monitoring framework. This requires the definition and systematic application of key performance indicators (KPIs), grounded in a comprehensive

² Artelys, LBST, Trinomics, Finesso, A. et al., [Investment needs of European energy infrastructure to enable a decarbonised economy](#), 2025.

understanding of past performance, current conditions, and expected system developments. Building on the smart grid indicators already developed by national regulatory authorities, clearly defined and measurable KPIs, combined with appropriate incentives, can help maintain confidence in the energy transition and ensure that progress remains visible and measurable.

Relevant KPIs could include:

- Grid utilisation
- Reduction of renewable energy curtailment
- Improved grid stability with higher shares of renewable energy
- Reduction of energy price volatility
- Shorter grid connection time for electrified stakeholders (e.g. renewable generators, industries, data centres, and EV infrastructure)
- Smart Grid Indicators (SGI) demonstrating grid digitalisation and efficiency
- Satisfaction with and timeliness of flexibility investments

For Europe's providers of power transmission and distribution technology for electricity grids and electricity intensive sites – including buildings, factories, data centres and hospitals – the Grids Package is a step forward in the right direction. At the same time, it offers an opportunity for the European Parliament and Council to further strengthen the level of ambition and ensure that the framework fully supports the scale and pace of Europe's energy transition.

Amendments on EC Proposal for revised Trans-European Network for Energy (TEN-E) Regulation (2025/0399(COD))

EC proposal for Revised TEN-E Regulation	Amendment suggestion
<p>Article 2 – Definitions</p> <p>(1) ‘energy infrastructure’ means any physical equipment or facility falling under the energy infrastructure categories set out in Annex II which is located within the Union, or linking the Union and third countries;</p>	<p>Article 2 – Definitions</p> <p>(1) ‘energy infrastructure’ means any physical <i>and/or digital</i> equipment or facility falling under the energy infrastructure categories set out in Annex II which is located within the Union, or linking the Union and third countries;</p>

Justification:

Modern energy infrastructure includes both physical and digital assets. Strengthening the digitalisation of Europe’s electricity system is essential to accelerate the energy transition, optimise system operations, and reduce supply chain pressures.

EC proposal for Revised TEN-E Regulation

Amendment suggestion

Article 2 – Definitions

(9) ‘smart electricity grid’ means an electricity network, including on islands that are not interconnected or not sufficiently connected to the trans-European energy networks, that enables cost-efficient integration and active control of the behaviour and actions of all users connected to it, including generators, consumers and prosumers, in order to ensure an economically efficient and sustainable power system with low losses and a high level of integration of renewable sources, of security of supply and of safety, and in which the grid operator can digitally monitor the actions of the users connected to it, and information and communication technologies for communicating with related grid operators, generators, energy storage facilities, and consumers or prosumers, with a view to transmitting and distributing electricity in a sustainable, cost-efficient and secure way.

Article 2 – Definitions

(9) ‘smart electricity grid’ means an electricity network, including on islands that are not interconnected or not sufficiently connected to the trans-European energy networks, that enables cost-efficient integration and active *digitalised, automated and optimised* control of the behaviour and actions of all users connected to it, including generators, consumers and prosumers, *as well as energy storage and flexibility service providers*, in order to ensure an economically efficient and sustainable power system with low losses and a high level of integration of renewable sources, of security of supply and of safety, and in which the grid operator can digitally monitor, *control and optimise* the actions of the users connected to it, and make use of *interoperable, secure and cyber-resilient* information and communication technologies for communicating with related grid operators, generators, energy storage facilities, and consumers or prosumers, with a view to transmitting and distributing electricity in a sustainable, cost-efficient and secure way.

Justification:

These amendments are needed to reflect the **current reality of electricity networks**. Variable renewable electricity already accounted for around 47% of EU electricity generation in 2024³ (wind, solar and other renewables combined), while more than 1,700 GW of renewable and hybrid projects are

³ EC, [State of the Energy Union Report 2025](#), 6 November 2025,

currently waiting for a grid connection across Europe.⁴ More dynamic electricity demand patterns and widespread congestion demonstrates that **passive network operation no longer suffices.**

An effective '**smart electricity grid**', supported by Grid-Enhancing Technologies, requires an active system reflecting real-time system balancing needs, particularly in large-scale renewable integration and electrification. At the same time, grid congestion costs €4.3 bn in 2024 in the EU, corresponding to around 60 TWh, comparable to Austria's power demand.⁵ Local, DSO-activated flexibility is a cost-effective solution to securely integrate diverse generation and demand, with smartEn demonstrating that flexibility can deliver over €71 billion in direct consumer benefits and over €300 billion in indirect gains.⁶

Lastly, the energy sector is the one of the most **targeted critical infrastructure** sectors in the EU, with over 18% of cyber threats targeting operational technology, including industrial and grid systems. Interoperable and cyber-resilient ICT systems are therefore essential, given the increasing digitalisation of grids and rising cyber threats.⁷

⁴ Beyond Fossil Fuels, E3G, EMEBER, at al., [How Europe's grid operators are preparing for the energy transition](#), 2025, p.15

⁵ ACER, [Transmission capacities for cross-zonal trade of electricity and congestion management in the EU](#), 5 September 2025, p.6

⁶ smartEn, [Demand- side flexibility in the EU: quantification of benefits in 2030](#), September 2022, p.7

⁷ ENISA, [ENISA THREAT LANDSCAPE 2025](#), p.8

EC proposal for Revised TEN-E Regulation

Article 2 – Definitions

(19) ‘non-wire solutions’ means investments in the energy infrastructure in electricity, which can increase the available grid capacity or improve the efficiency of grid operation by deploying grid enhancing technologies, including digital solutions.

Amendment suggestion

Article 2 – Definitions

(19) ‘non-wire solutions’ means investments in the energy infrastructure in electricity, which can increase **the utilisation of** the available grid capacity or improve and optimise the efficiency **and reliability** of grid operation by deploying grid enhancing technologies, including digital and automated solutions.

Justification:

Non-wire solutions include, among others, **demand-side digital solutions and distributed energy resources, flexibility measures, energy management systems, and advanced system and software operations**, all aimed at improving the **utilisation of existing network assets**, with potential efficiency gains of up to 30%.⁸

Modern energy infrastructure relies on **both physical and digital** components. Updating the definition of non-wire solutions to emphasise enhanced grid capacity utilisation, operational efficiency, and reliability reflects this reality and supports the digitalisation objectives necessary for the energy transition.

⁸ IEA, The Value of Demand Flexibility, 23 December 2025, p. 6, 11

EC proposal for Revised TEN-E Regulation

Article 11 – Central scenario for the ten-year network development plans

(2) The central scenario shall:

- (a) be consistent with the Union’s targets for energy and climate and include a long-term perspective until at least 2050 in accordance with the Union’s climate neutrality objective;
- (b) take a cross-sectoral approach ensuring consistency between the electricity, hydrogen and gas sectors, optimizing system efficiency;
- (c) include sensitivity analyses as appropriate.

Amendment suggestion

Article 11 – Central scenario for the ten-year network development plans

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- b) take a cross-sectoral approach ensuring consistency between the electricity, hydrogen and gas sectors, optimizing system efficiency;
- c) include sensitivity analyses as appropriate.
- d) Should provide clarity to the next five years;*
- e) Be aligned with NECPs;*
- f) Provide strategic guidance*

Justification:

These additions ensure that network development planning delivers actionable direction for the **next five years** while remaining coherent with broader planning instruments and policy objectives, thereby improving the practical relevance and **investment predictability** of the scenario within the framework of the European Grids Package.

EC proposal for Revised TEN-E Regulation

Article 11 – Central scenario for the ten-year network development plans

(3) ... That includes, but is not limited to market and network data, such as demand and supply projections, characteristics of power generation, hydrogen production and networks, flexibility sources, imports assumptions, as well as climatic years data. The Commission shall set a reasonable time limit within which the data and information is to be provided, ...

Amendment suggestion

Article 11 – Central scenario for the ten-year network development plans

(3) ... That includes, but is not limited to market and network data, such as demand and supply projections, characteristics of power generation, hydrogen production and networks, flexibility sources, imports assumptions, as well as climatic years data, *spatial distribution and voltage level of connection requests*. The Commission shall set a reasonable time limit within which the data and information is to be provided, ...

Justification:

The amendment enhances the evidentiary basis of the central scenario by requiring spatial and voltage-level data on connection requests, complementing analysis of renewable integration, grid stability, and flexibility needs. This **improves planning accuracy** and supports **performance-oriented network development**, strengthening confidence in the energy transition.

EC proposal for Revised TEN-E Regulation

Article 11 – Central scenario for the ten-year network development plans

(4) The Commission shall consult the Agency, national regulatory authorities, the ENTSO for Electricity, the ENNOH, the ENTSO for Gas, the European entity for the cooperation of electricity distribution system operators in the European Union (EU DSO Entity), the Member States as well as other relevant stakeholders on the data collected for the purpose of the central scenario development process, including assumptions and their use in the development of the central scenario.

Amendment suggestion

Article 11 – Central scenario for the ten-year network development plans

(4) The Commission shall consult the Agency, national regulatory authorities, the ENTSO for Electricity, the ENNOH, the ENTSO for Gas, the European entity for the cooperation of electricity distribution system operators in the European Union (EU DSO Entity), the Member States as well as other relevant stakeholders, *including technology providers and the relevant value chain*, on the data collected for the purpose of the central scenario development process, including assumptions and their use in the development of the central scenario.

Justification:

Given the **crucial role of technology providers** in building, digitalisation, and expansion of network infrastructure, their input can contribute to more informed assumptions in the central scenario and support network planning that reflects technological and operational reality.

EC proposal for Revised TEN-E Regulation	Amendment suggestion
<p>Article 12 (2) – Infrastructure needs identification report</p> <p>2. The infrastructure needs identification reports shall:</p> <p>(a) be based on the central scenario developed by the Commission in accordance with Article 11 and its sensitivity analyses;`</p> <p>(b) comply with the methodology developed by the Agency pursuant to paragraph 11;</p> <p>(c) comply with the principles laid down in Annex VII of this Regulation;</p> <p>(d) ensure a cross-sectoral approach ensuring consistency between the electricity and hydrogen sectors as well as, where applicable, gas, district heating and CO2 sectors.</p>	<p>Article 12 (2) – Infrastructure needs identification report</p> <p>2. The infrastructure needs identification reports shall:</p> <p>(a) be based on the central scenario developed by the Commission in accordance with Article 11 and its sensitivity analyses;</p> <p>(b) comply with the methodology developed by the Agency pursuant to paragraph 11;</p> <p>(c) comply with the principles laid down in Annex VII of this Regulation;</p> <p>(d) ensure a cross-sectoral approach ensuring consistency between the electricity and hydrogen sectors as well as, where applicable, gas, district heating and CO2 sectors;</p> <p><i>(e) consider forward-looking climate and extreme weather risk scenarios to assess potential system vulnerabilities and prevent failures;</i></p>

Justification:

Article 12 proposes to ensure the identification of infrastructure needs that underpin Union-wide network development and the selection of projects of common interest. While the current framework focuses primarily on capacity, congestion and decarbonisation pathways, it does not explicitly **incorporate forward-looking climate and extreme weather risk as a driver of infrastructure needs**. As climate-related hazards increasingly affect the reliability and performance of electricity networks, failing to take such considerations into account creates a structural bias in infrastructure planning. As a result, investments aimed at preventing system failures are not systematically recognised as infrastructure needs. This consideration should also be reflected **in ACER’s upcoming methodology**. Integrating climate risk into the infrastructure needs identification process is therefore essential to ensure coherence between the Union’s **resilience objectives** and the instruments designed to achieve them.

EC proposal for Revised TEN-E Regulation	Amendment suggestion
<p>Article 12 (3) – Infrastructure needs identification report</p> <p>The ENTSO for Electricity and the ENNOH, respectively, shall consult relevant stakeholders on the additional data, assumptions and their use for the development of their infrastructure needs identification report.</p>	<p>Article 12 (3) – Infrastructure needs identification report</p> <p>The ENTSO for Electricity and the ENNOH, respectively, shall consult the <i>European entity for the cooperation of electricity distribution system operators in the European Union (EU DSO Entity) as well as other relevant stakeholders including the value chain</i>, on the additional data, assumptions and their use for the development of their infrastructure needs identification report.</p>

Justification:

Transmission planning that does not systematically integrate distribution-level data risks overestimating network capacity, misidentifying national and local bottlenecks, and delaying project delivery. Involving distribution system operators and wider value chain ensures that ENTSO-E planning reflects **real network conditions**, supports coherent grid development across voltage levels, and **avoids stranded or underused transmission assets**.

The Grids Package Communication identifies the establishment of a platform involving the EU DSO Entity and the European Commission to assess infrastructure needs and network planning at local level. We call for the **close coordination between the EU DSO Entity and ENTSO-E** to align forecasted needs with the objectives of energy transition, energy efficiency and cost effectiveness.

EC proposal for Revised TEN-E Regulation

Article 29 – Amendments to Regulation (EU) 2019/943

Article 48 – Ten-year network development plan

(1) The Union-wide network development plan referred to under Article 30(1), point (b), of this Regulation shall be

The Union-wide network development plan shall, in particular:

- (a) ...;
- (b) ...;
- (c) ...;
- (d) identify investment gaps, in particular with respect to cross-border capacities.

In regard to the second subparagraph, ...

Amendment suggestion

Article 29 – Amendments to Regulation (EU) 2019/943

Article 48 – Ten-year network development plan

(1) The Union-wide network development plan referred to under Article 30(1), point (b), of this Regulation shall be

The Union-wide network development plan shall, in particular:

- (a) ...;
- (b) ...;
- (c) ...;
- (d) identify investment gaps, in particular with respect to cross-border capacities.

(e) include the definition and systematic application of key performance indicators, such as:

- i. Grid utilisation***
- ii. Reduction of renewable energy curtailment***
- iii. Improved grid stability with higher shares of renewable energy***
- iv. Reduction of energy price volatility***
- v. Shorter grid connection time for electrified stakeholders (e.g. renewable generators, industries, data centres, and EV infrastructure)***
- vi. Smart Grid Indicators (SGI) demonstrating grid digitalisation and efficiency***
- vii. Satisfaction and timeliness of flexibility investments***

In regard to the second subparagraph, ...

Justification:

Clear KPIs on renewable curtailment, grid stability, electricity price volatility, connection times, smart grid indicators and flexibility investments – supported by incentives and penalties – enable a measurable assessment of network performance and policy outcomes. This approach enhances transparency, strengthens accountability, and fosters confidence in the energy transition.

EC proposal for Revised TEN-E Regulation	Amendment suggestion
<p>TEN-E ANNEX VII (7) – Infrastructure needs identification report</p> <p>In electricity, it shall consider infrastructure and non-wire solutions, with due consideration of non-fossil flexibility potential and use, including storage, which would lead to more optimised energy system. The matchmaking of needs with projects submitted for inclusion in the Union wide ten-year network development shall be accompanied by an explanation how non-wire solutions, non-fossil flexibility or other alternatives to system expansion were taken into account.</p>	<p>TEN-E ANNEX VII (7) – Infrastructure needs identification report</p> <p>In electricity, it shall <i>include DSO data, forecasts and needs</i> and consider infrastructure and non-wire solutions, with due consideration of non-fossil flexibility potential and use, including storage, which would lead to more optimised energy system. The matchmaking of needs with projects submitted for inclusion in the Union wide ten-year network development shall be accompanied by an explanation how non-wire solutions, non-fossil flexibility or other alternatives to system expansion were taken into account.</p>

Justification:

Transmission and cross-border infrastructure must be adequately supported by **modern, resilient and cybersecure local networks**. Accordingly, the infrastructure needs identification report should incorporate DSO data, forecasts, and local network requirements to ensure that local developments are aligned with the needs identified for upstream infrastructure.