

ENTSOG POSITION ON THE EU GRIDS PACKAGE

ENTSOG acknowledges the EU Grids Package and welcomes the objective to strengthen the EU's energy infrastructure by enhancing and more efficiently using cross-border energy infrastructure (grids).

A proposal aimed at a fully integrated energy system should recognise and leverage the strengths of all its components. It should not overlook energy vectors that underpin system adequacy, affordability and ensure security of supply in an uncertain environment, while simultaneously serving as enablers for the energy transition. In this regard, ENTSOG considers that the **proposed legislative initiative misses an “energy system integration” approach.**

Also, **exclusion of national and regional views – as well as detailed consideration of gas grids and infrastructure of Transmission System Operators (TSOs) and other stakeholders – can negatively impact the energy transition** (e.g., transporting renewable gases and the carefully considered repurposing of infrastructure). The proposal also lessens the ENTSOs' (ENTSO-E, ENNOH, ENTSOG) role in energy scenarios for infrastructure planning.

The future scenario work proposed would be set up using a top-down approach – with **only minor engagement and options for thorough verification by Member States and energy experts involved in actual operation of energy infrastructure** – and this could have a significant impact on national energy plans and systems. **Such a proposal significantly reduces the use of valuable contributions from expert stakeholders and industry specialists.** The governance structure underlying the development of EU energy infrastructure, with clear and defined roles for infrastructure operators and supervisory bodies, has proven to be effective and well-coordinated. By contrast, a top-down shift of this responsibility introduces the risk of scenario-building processes driven by unaffordable trajectories. This proposal would weaken the involvement of system operators, that are the subjects responsible to build and operate infrastructures, thus knowing their actual possibilities and technical constraints. This would result in reduced system efficiency and less affordable projects.

The ENTSOs contribute as trusted advisors and bring technical expertise, hands-on experience and knowledge to the process. ENTSOs are in operational touch with upstream, midstream, and downstream energy logistics and operational processes, **this insight is essential to construct realistic scenarios based on industries and citizens' needs and not on ambitions.** It should be noted that TYNDP Scenarios are used in the European Commission's (EC) process to grant Projects of Common Interest (PCI) and Projects of Mutual Interest (PMI) status allowing for faster permitting processes and eligibility to apply for European funds.

The proposal also deletes the PCI/PMI category for **“Smart Gas Grids”**. This will strongly hamper the development of cross-border biomethane trade, which is highly significant to the EU diversification strategy and an integrated energy system that is more affordable and efficient. On the contrary, this category should be reinserted broadening its scope to call it, for example: **“Clean Molecules Integration infrastructure”**, so that it can display its full potential, constrained by its current definition.

We welcome that the Energy Highways Initiative of the European Commission (EC) reflects a technology neutrality principle and covering also molecules (both gas and hydrogen) and not only electricity. We furthermore expect the explicit definition of concrete measures enabling infrastructure realisation, following the expression of political support. However, we believe that any **“Energy Highways”** that are proposed in the EU Grids Package should reflect all corridors and regions, focusing not only on some specific urgent networks but to include the whole energy system, including electricity and gases (methane and hydrogen).

An inclusion of these dimensions would strengthen the ability of a future energy system to be flexible, resilient and provide security of supply for Europe's industries and consumers, at affordable prices.

RECOMMENDATIONS TO ADDRESS SEVERAL CHALLENGES IN THE PROPOSED EU GRIDS PACKAGE

ENTSOG would like to bring attention to a number of important points relating to proposed changes to the TEN-E Regulation, and to suggest improvements.

1) SCENARIOS

Challenges

- Energy scenarios move to a strict top-down system whereby these scenarios would be prepared by the EC through the Joint Research Centre (JRC). Scenarios are used in the EC's process to grant PCI/PMI status, allowing for faster permitting process and eligibility to apply for European funds. There is a real risk that a top-down approach to scenarios would limit the quality, objectivity and rigour of the results, ultimately resulting in national and regional realities not being addressed. Feedback loops are significantly reduced, diminishing stakeholders' input opportunities.
- The fundamental reorganisation of the TYNDP process proposed by the EC looks premature at this stage. Since the entry into force of the revised TEN-E Regulation (Regulation (EU) 2022/869) in June 2022, TYNDP 2026 is the first cycle to be fully covered by the provisions of the revised Regulation, as the TYNDP 2022 process was already underway when the updated TEN-E framework entered into force and the TYNDP 2024 process started before the ACER Scenario Framework Guidelines were published. Meaningful assessment of the effectiveness of the current regulatory framework requires, in our view, experience from at least two complete TYNDP cycles implemented under the revised rules, with improvements from one cycle to another based on stakeholder consultations as well as decisions, opinions and informal exchanges with ACER and the EC. Such gradual improvements allow for testing their effects, and better informed decisions regarding any marked reorganisation of the process.

Solution

- The ENTSOs – including ENTSOG – should continue to be responsible for the scenarios development process, to ensure national and regional realities are addressed and reflected in the PCI/PMI selection process – as it is already the case in the current process. We suggest that more actors be included, with more proactive engagement of EC from the beginning of the process and active participation of other stakeholders recommended. Nevertheless the lead should remain with the ENTSOs since these have essential operational and logistics overview for energy infrastructure, with operational insight on processes executed upstream, midstream, and downstream.

Scenario development is complex. The underlying modelling capabilities, operational experience, and technical expertise are well established by the ENTSOs and provide a robust basis for the process, underpinned by modelling that was refined over 5 cycles under scrutiny of ACER and the EC. ENTSOs' technical expertise, data scrutiny and coordination with all relevant **national operators and Member States are essential to produce reliable, integrated scenarios.**

Under the proposal, the ENTSOs continue to be responsible only for scenario data collection used solely for the further scenario modelling. The proposal thereby excludes the possibility to make use of the ENTSOs' operational, technical, market and region-specific expertise, to verify the data and the mechanisms underlying scenario production.

By minimising national operators' expertise – for adequate data review, scrutiny and endorsement – and Member States' national energy and climate plans from the scenarios' compliance criteria, **there is a substantial risk that a top-down approach to the scenarios development would limit the quality, objectivity and realism of the results.** This would then result in an **inaccurate and less feasible narrative of where infrastructure is most critically needed**, from the perspective of the European system needs assessment.

Therefore, **ENTSOG believes that the current scenario process should remain in place, with the ENTSOs retaining their driving role.** Their technical expertise, data scrutiny capability and close coordination with national operators – a regulated part of the value chain – and Member States are essential to produce realistic, integrated scenarios. The ENTSOs, as well as Member States, take responsibility for subsequent planning, development and managing of the infrastructure, maintaining and working on strengthening security of supply. Removing the ENTSOs from the end-to-end process management would weaken the foundation of Europe’s future infrastructure planning. It would also represent a step backwards in terms of the progress that the ENTSOs and the Stakeholder Reference Group (SRG) have achieved in streamlining cooperation and expert input, within the scenario-building process.

ENTSOG acknowledges existing challenges in the current process, particularly in achieving consistent implementation across Member States and ensuring alignment with evolving national energy and climate targets and timelines. This does not warrant a change in responsibilities. Rather, the challenges point to the **need for incremental improvements through closer cooperation.** We suggest that this has been achieved in the current 2026 cycle with ACER creating and including the SRG in their Scenario Framework Guidelines, to play an active role in workshops.

Building on the momentum of the SRG, **ENTSOG believes a number of opportunities could be implemented in a speedy manner in the existing setup.** For example, **the JRC could play a technical role in the further development and harmonisation of methodologies, within the frame of the SRG,** being actively involved throughout the methodological work and perhaps in decision-making, to reinforce robustness, transparency, and alignment with EU-level energy objectives.

RECOMMENDATION

Amend Article 11. The ENTSOs continue to be responsible for data collection and TYNDP Scenario development process, as outlined in TEN-E Regulation (EU) 2022/869.

Amend Article 12. Controls by the EC and ACER take place ex-ante, with their endorsement required for publication, replacing the current Opinion provision process. Scenarios should stay within a two-year cycle to be up-to-date.

Additional comments

a) Inconsistencies in timing and duration of processes

Under the current legal set-up, ENTSO-E and ENTSOG are required to adopt the Union-wide Ten-Year Network Development plan (TYNDP) every two years, having completed all the steps from scenario building to infrastructure needs identification. The project-specific cost-benefit analysis is undertaken after the infrastructure needs identification. Both are used in the subsequent PCI/PMI selection process, run by the EC.

The current proposal extends the duration of the TYNDP scenarios from two to four years. We believe that a four-year cycle is too long to represent up-to-date, realistic results that are based on the latest Member States’ National Energy and Climate Plans (NECPs) and National Development Plans (NDPs). ENTSOG recommends that the scenario development process continue to take place within a two-year TYNDP timeframe, as many stakeholders have requested¹. This is especially relevant in the context of the PCI/PMI status granted by the EC to Priority Projects, which remain unchanged at a two-year cycle in the current proposal.

b) Unclarity on TYNDP Processes

No specific changes related to ENTSOG’s TYNDP process were included in the Package proposal. Therefore, if the final legislative outcome requires ENTSO-E and ENNOH to develop needs identification and Project Specific Cost Benefit Analysis (PS-CBA), ENTSOG should be involved in Interlinked Model (ILM) building. This is to ensure the consideration of the development of biomethane and other renewable and low-carbon gases, and to ensure that repurposing and security of supply assessment of the methane network with the full level of expertise from the gas TSOs (see Sections 2, 3 and 4 below).

¹ “On the frequency of the processes, most stakeholders (85%) found the current two-year cycle appropriate. The legislative proposal prolongs the current two-year TYNDP cycle to four years, but maintains flexibility if updates are needed” p.9 of [COM\(2025\) 1006 final](#)



Picture courtesy of terranets bv

2) REPURPOSING

Challenge

- Repurposing is only considered in one direction: repurposing from gas to hydrogen does not consider impacts on the gas system.

Solution

- Security of supply and adequacy need to be taken into account for the gas system, since reliability in all interlinked systems is needed.

Within the TEN-E proposal, repurposing is explicitly defined and specified in the hydrogen infrastructure category. However, there is a notable **absence of considering the impact of repurposing and other gas system evolutions on the whole energy system**. It is essential that security of supply needs be taken into account.

RECOMMENDATION

The TEN-E Regulation proposal should better reflect the full energy system impact of repurposing and other gas infrastructure developments, not just at project level. Security of supply impact for the different stakeholders in the energy system should be taken into account.

This absence of a complete view of the whole energy system and its security of supply could potentially result in removing or not investing in essential infrastructure. For proper planning, meeting infrastructure development standards, and to address adequacy needs, the TEN-E Regulation should include a proper gas infrastructure assessment and monitoring at a full energy system level, not just at project levels.

The **conclusions** of the 10th Energy Infrastructure Forum in Copenhagen (CEIF) in June 2024, required ENNOH and ENTSOG to develop a **report on criteria for repurposing natural gas infrastructure for hydrogen**, which was finalised in November 2025 as requested by the 11th CEIF in June 2025. The described process represents just one possibility to be considered by relevant competent authorities within the Member States for the needed flexibility during the planning process. The findings of this report will be taken into account in the TYNDP 2026, as requested by the Forum.

3) SMART GAS GRIDS/“CLEAN MOLECULES INTEGRATION INFRASTRUCTURE”

Challenge

- ▲ The proposal deletes the PCI/PMI category “Smart Gas Grids”. This will potentially restrict the development of cross-border biomethane and other renewable/low-carbon gases trade and the need to integrate larger volumes into the EU gas network.

Solution

- ▲ Reinstate and reinforce the category, perhaps calling it “Clean Molecules Integration Infrastructure” as a PCI/PMI category. This category would have with a wider role in enabling biomethane and other renewable/low carbon gases integration, in order to ensure these gases can be integrated at transmission level with support for the infrastructure and processes, (e. g. reverse flow installations). Furthermore, gas treatment facilities should be included within the scope of the category, as an example, at least until harmonised gas quality standards are in place to enable increased biomethane integration and cross-border flows.

Biomethane is an affordable and renewable energy source. It provides supply security via domestic production and can be easily injected into gas networks. It is essential that **cross-border transmission of biomethane be supported both politically and financially**, with mechanisms such as PCI/PMI project status and subsequent eligibility for the Connecting Europe Facility for Energy (CEF-E) funding.

RECOMMENDATION

Reinstate or reinforce the “Smart Gas Grids” category with a wider role in enabling biomethane and other low-carbon/renewable gases integration, by calling the category “Clean Molecules Integration Infrastructure”, for example. This would be in the TEN-E Regulation as a PCI and PMI category, with a broader description to ensure biomethane and other renewable/low carbon gases’ integration at transmission level.

REPowerEU includes a 35 bcm biomethane target for 2030. However, with the deletion of the “Smart Gas Grids” category, there is an absence of a dedicated EU support instrument for biomethane infrastructure investments.

The **deletion also creates regulatory uncertainty**. Despite few projects yet classified as “Smart Gas Grids” PCIs (pending the approval of the 2nd Union list published on 1 December 2025), the category is still quite new, as of 2022. The category will be needed more than ever, to accommodate increasing biomethane volumes and to help meet the EU’s 35 bcm target by 2030.

Additionally, the proposal is not technology neutral: it retains the “Smart Electricity Grids” category, which we suggest has the same level of cross-border impact as that of a so-called “Clean Molecules Integration Infrastructure” category, as an example.

Several European gas TSOs are cooperating and working on developing cross-border biomethane projects, with quantified cross-border impact.² Other so called Clean Molecules Integration infrastructure projects are being developed on gas treatment facilities, to enable cross-border flows. Removing the category from the TEN-E Regulation reduces innovation and the development of affordable projects that easily support the energy transition. ENTSOG believes that the **category should not only be reinstated, but the description could also be improved and expanded**.

² The French/Danish GREENCONNECT project has been granted PCI status under the Smart Gas Grid category (pending formal agreement on the list of 1 December 2025). It enables surplus biomethane produced in local distribution networks to be fed back into national transmission networks and has a positive cross-border impact.

4) “INTERLINKED MODEL” REMOVAL & CROSS-SECTOR SYSTEM INTEGRATION PERSPECTIVE MISSING

Challenge

- ▲ In the proposal, the Interlinked Modelling is removed. ENTSOs' work on the joint system-wide needs identification is excluded and key interactions between electricity, gas and hydrogen risk being less efficiently addressed if each ENTSO undertakes modelling separately.

Solution

- ▲ Reinstate “Progressively integrated model” development for an integrated system perspective and consequently, for an efficient and flexible energy system.

The removal of the Interlinked Modelling (ILM) approach indicates a lack of a cross-sector system integration perspective in the current Package proposal. An increasingly integrated system can offer flexibility, allowing more efficient use of energy sources and increased uptake of carbon-neutral energy. In this context, understanding the behaviour of such a system becomes paramount to assess the value of infrastructure projects.

RECOMMENDATION

Continue ILM development by ENTSO-E, ENNOH and ENTSG and mention this explicitly in the text (or: complement with specifications in ACER's Framework Guidelines for needs identification).³

The ILM contributes to understanding the impact of the energy transition on Europe's future hydrogen and electricity networks and has been a strategic enabler for the core planning of ENTSO-E, ENTSG and ENNOH, including Scenario Building, Identification of System Needs/Infrastructure Gaps Identification, and Cost-Benefit Analysis (CBA).

In the absence of the ILM, it is assumed that this will be replaced by an alternative prescribed needs identification methodology, developed by ACER. This may miss key ILM interactions and result in hard-to-predict modelling adjustments by the ENTSOs. Furthermore, it may increase the modelling phase duration during the tight, six-month delivery period for both Needs Identification and Project Specific Cost-Benefit Analysis (PS-CBA).

3 ACER Opinion on the Integrated Model for electricity, gas and hydrogen infrastructure planning (p.7): “As also highlighted in ACER's consultancy study on Scenario development [...] ENTSO-E and ENTSG have made notable progress in developing a joint scenario development process that ensures broad consistency between input assumptions provided by national electricity and gas TSOs”.

5) THE “ENERGY HIGHWAYS INITIATIVE” (IN THE EU GRIDS PACKAGE COMMUNICATION)

ENTSOG welcomes the inclusion of the gas **Energy Highways indicated in the communication**, and the recognition of the need for strengthened gases corridors in South-east Europe. However, the rationale for choosing the indicated energy highways is not clear. **A broader and more balanced overview with all gas corridors is needed to show the importance of regional connectivity for EU-wide energy system integration.**

We assert that the **Energy Highways does not include a complete view of corridors to adequately reflect the future needs for gas and hydrogen and should instead reflect Energy Corridor Technologies for all energy vectors.**

The Energy Highways map indicates the infrastructures that require particular additional short-term support. However, the Grids Package proposal itself does not elaborate on the strategy for the rollout of these projects or the support the gas corridors could receive in order to be implemented.

RECOMMENDATION

The map should be followed by the definition of concrete measures enabling infrastructure realisation, then extended to all corridors and regions, including the whole energy system (electricity and both molecules, methane and hydrogen).

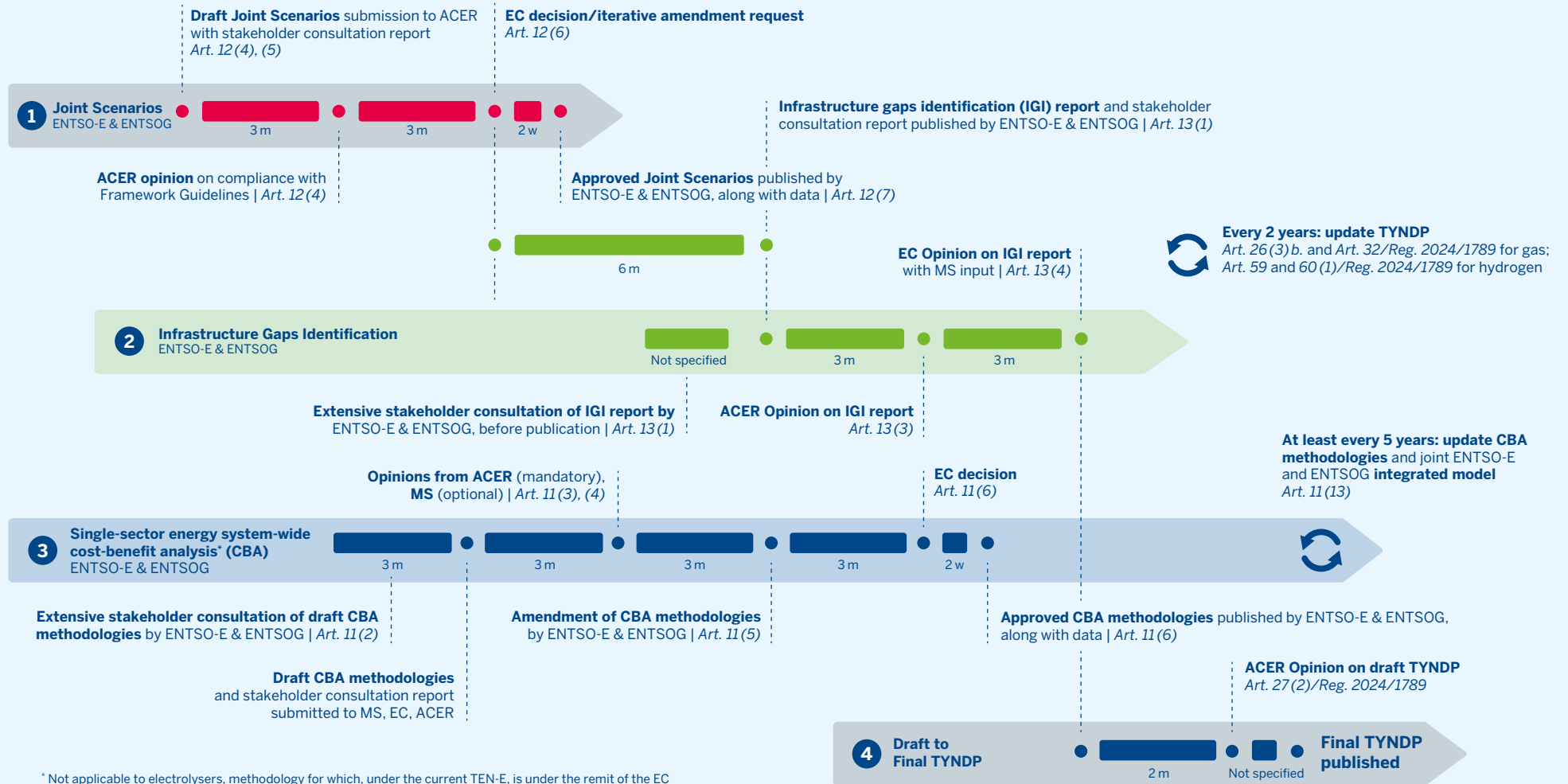


Picture courtesy of GAZ-SYSTEM

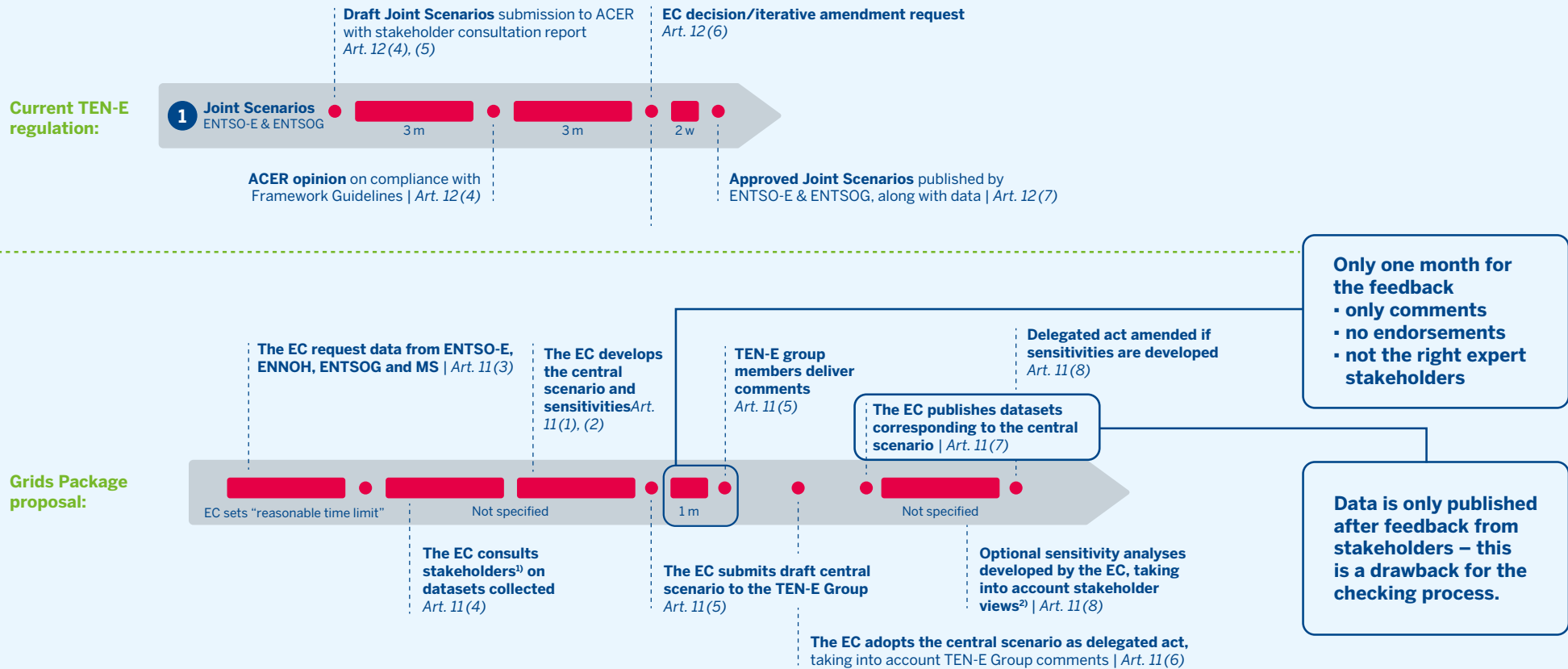
ANNEX I

TYNDP, SCENARIOS AND NEEDS ASSESSMENT PROCESSES: CURRENT TEN-E REGULATION VERSUS PROPOSAL IN EU GRIDS PACKAGE

END-TO-END TYNDP PROCESS ACCORDING TO CURRENT TEN-E (2022 REVISION)



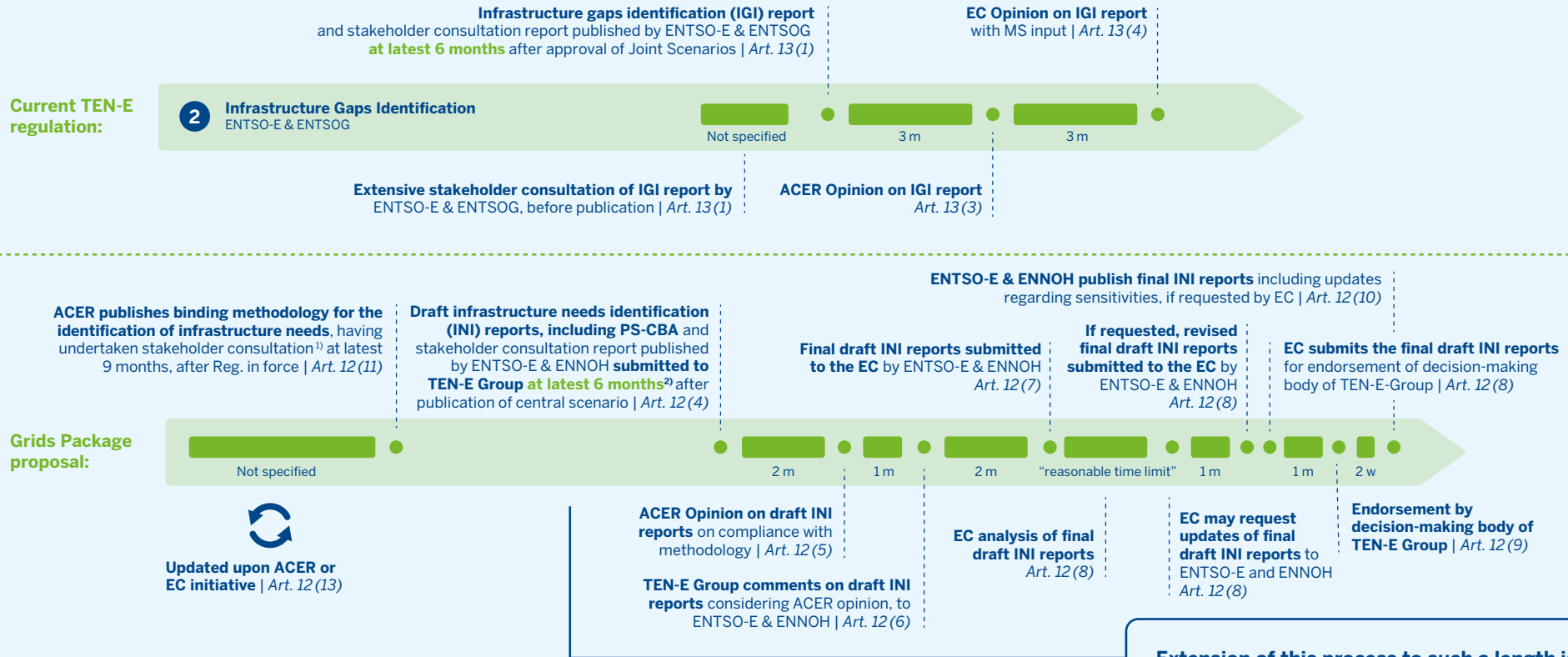
SCENARIOS: CURRENT TEN-E VS GRIDS PACKAGE PROPOSAL



1) ACER, NRAs, ENTSO-E, ENNOH, ENTSOG, the EU DSO entity, MS, other relevant stakeholders

2) ACER, NRAs, MSA, other relevant stakeholders; A formal consultation is not mentioned. Process can be assumed as bilateral or included in the consultation mentioned under Art. 11(3).

NEEDS IDENTIFICATION: CURRENT TEN-E VS GRID PACKAGE PROPOSAL



1) With the EC, MS ENTSO-E, ENNOH, ENTSOG, the EU DSO entity, other relevant stakeholders.
 2) Except where publication is limited to adding a sensitivity analysis

Extension of this process to such a length is counter to the efficiency goal of the proposal. Unrealistic to tie this into a two-year process. May cause problems with ACER publishing cost data cycles.



Picture courtesy of Swissgas



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