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European Grids Package

Fields marked with * are mandatory.

Introduction

About you

* Language of my contribution

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- (○) Croatian
- (○) Czech
- (○) Danish
- (○) Dutch
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* I am giving my contribution as
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- ○ Non-governmental organisation (NGO)
- ○ Public authority
- ○ Trade union
- ◉ Other

* First name

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* Surname

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* Organisation name

255 character(s) maximum

EU DSO Entity

* Organisation size
- ○ Micro (1 to 9 employees)
- ◉ Small (10 to 49 employees)
- ○ Medium (50 to 249 employees)
- ○ Large (250 or more)

Transparency register number

Check if your organisation is on the transparency register. It's a voluntary database for organisations seeking to influence EU decision-making.

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* Country of origin

Please add your country of origin, or that of your organisation.

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- Somalia
- South Africa
- South Georgia and the South Sandwich Islands

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- Belarus
- Belgium
- Belize
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- Turks and Caicos Islands

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- Rwanda
- Saint Barthélemy
- Saint Helena Ascension and Tristan da Cunha
- Saint Kitts and Nevis
- Saint Lucia
- Tuvalu
- Uganda
- Ukraine
- United Arab Emirates
- United Kingdom
- United States
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General questions

Secure supplies of clean and affordable energy are critical for European competitiveness, preparedness, security and the EU's decarbonisation efforts towards 2030 and 2050. Ensuring a well-integrated and optimised European energy grid is crucial to accelerating a cost-efficient clean energy transition. The mission letter to Commissioner Jørgensen calls to work for the production of "more clean energy" and "the upgrade of the grid infrastructure". Specifically, it is requested to "look at the legal framework on European grids with the aim to help upgrade and expand grids to support rapid electrification [and] speed up permitting" and highlights the need to "upgrade our grid infrastructure and develop a resilient, interconnected and secure energy system".

Q1: To what extent do you agree that existing EU legal framework for grids delivers on the following objectives?

	Strongly disagree	Slightly disagree	neutral	Slightly agree	Agree	Don't know
* Market integration	○	○	○	◉	○	○
* Interconnections	○	○	○	◉	○	○
* Competition / Affordability of energy prices	○	○	○	◉	○	○
* Energy security	○	○	○	◉	○	○

Please explain your reply providing, where possible, qualitative and quantitative evidence.

While the European energy market integration, including the development of one of the “most extensive and resilient electricity networks in the world” (COM 2023/767), can be widely acknowledged as a success story, more integration will be needed in the future as well as a shift in perspective towards a more decentralised, digitalized and renewable energy system. Also, two of the elements of the EU energy objectives - competitiveness and resilience/energy security - have gained new momentum due to changes in the (geo) political situation and will have to be kept in view. However, it is regrettable that the table in the consultation does not mention “the integration of decentralised resources / renewables” as objective since this is one of the core EU sustainability objectives and core challenge faced by DSOs and where the current framework does not seem to be fit for purpose. Given the changes in the energy system and the increasing role of DSOs, the current legal framework is not yet fully adapted to the new circumstances overlooking the decentralized level which is key in empowering consumers.

While grids in general and DSOs in particular had often been overlooked in the European legislative framework in the past, recent developments in the Electricity Market Design reform (EMD) and the Grid Action Plan (GAP) have positively put grids and their role in the spotlight. However, the European framework remains focused on a predominantly cross-border view with little inclusion of distribution grids which can be seen in the relatively low support for DSOs in European funding opportunities for instance.

However, this does not mean that all solutions can and should be tackled within the EU framework since despite their relevance for the EU energy objectives, DSOs remain local and diverse actors. While DSOs and DSO Entity are committed to the European project and strive for alignments on different levels, the current approach looking for simplification should also apply for DSOs while accommodating this diversity. Therefore, it will be important to (1) ensure implementation of existing EU legislation and strengthen EU guidance to support Member States in tailoring solutions to local realities, and (2) improve coordination and alignment between the different levels to foster cooperation and knowledge sharing. The future framework must ensure that all players cooperate and coordinate their actions to optimise the required evolution from the energy grid towards an energy system to enable customers to actively participate in the transition. It should be clear that this system wide approach points towards engaging all players of the system to realise the energy transition in the most effective and efficient way and not to unify or standardise one size fits all solutions over all voltage levels.

Below are some examples of measures describing where EU support will be needed and identifying in which areas should be strengthened.

Direct EU support

- Multi-Annual-Financial Framework (MFF), Funding and Financing support at EU level: Given the relevance of DSOs for the delivery of the EU’s objectives, greater focus should be put on DSOs as a strategic sector in a potential EU Competitiveness Fund, in the CEF-E and/or ear-marked funds for DSOs in funding projects
- The EU-level should give clearer guidance to NRAs to ensure that grid investments are aligned with the European Climate and Energy objectives as well as prepared for increasing needs for climate adaptation and prevention of physical and cyber-attacks.
- EU leadership and support on strategic topics such as reliable supply chains, accessible raw materials, or simplified EU public procurement rules are areas where active EU-action and support are needed to ensure the right conditions for DSOs on the ground.
- Ensuring the timely adoption of secondary acts on technical rules(e.g. NCDR, RfG).

Indirect EU support

- Ensuring and supporting the implementation of existing European rules: During the previous legislative period positive measures related to grids were adopted and should be implemented as soon as possible (e. g. provisions on anticipatory investments, flexible connection agreements, permitting). This includes support for coherent implementation via guidelines (e.g. Guidelines for dedicated grid-areas).
- Providing guidance in cooperation with DSO Entity on topics with primarily local or national character and relevance to ensure further alignment through the exchange of good practices (e.g. Distribution Network Development Plans, Public Engagement, digital technologies).
- Facilitating a system of systems ensuring balanced EU legislation regarding the roles and responsibilities of DSOs/TSOs to guarantee good coordination also at the national level. E.g. for national network development planning, sufficient TSOs-investments in the connections with DSOs are key to ensure sufficient capacity at the DSO-level to connect customers.

Q2: In your view, what are the main barriers to grid infrastructure development necessary for the energy transition to happen, and at sufficient pace? [rank them from 1 (most important) to 8 (least important)]:

	1 *(most important)*	2	3	4	5	6	7	8 (least important)	Don't know
* Suboptimal transmission network planning	○	○	○	○	○	○	◉	○	○
* Suboptimal distribution network planning	○	○	○	○	○	○	◉	○	○
* Lengthy permitting	○	◉	○	○	○	○	○	○	○
* Insufficient financing	◉	○	○	○	○	○	○	○	○
* Insufficient supply chains	○	◉	○	○	○	○	○	○	○
* Inefficient use of existing infrastructure	○	○	○	○	○	◉	○	○	○
* Regulatory uncertainty	◉	○	○	○	○	○	○	○	○
Other (please specify below)	○	○	○	○	◉	○	○	○	○

Please specify:

4000 character(s) maximum

1) “System wide approach”: Current legislation is mostly based on the grid challenges, with strong focus on the transmission grids and interconnections on country level. However, the challenges now are more complex than before and can no longer be limited to the physical capacity of the grid. To provide the right proactive actions it must be ensured that all players in the energy eco-system cooperate and coordinate their actions to optimise the required evolution from the energy grid towards an energy system to enable customers to actively participate in the energy transition. A system wide approach will open new opportunities for customers, service suppliers and system operators and ensure the energy transition is realised in the most effective and efficient way without unifying or standardising one size fits all solutions over all voltage levels.

2) Workforce and skills gaps Europe faces a critical shortage of electrical engineers, grid planners, and digital experts due to an aging workforce, insufficient training, and competition from other sectors. This skills gap delays project delivery and hampers the rapid scaling of grid infrastructure.

3) TSO-DSO cooperation: Facilitating a system of systems approach treating DSOs/TSOs equally: Ensure balanced EU legislation regarding the roles and responsibilities of DSOs/TSOs to guarantee good coordination and cooperation also at the national level. For instance, for national network development planning, it is of great importance that TSOs invest sufficiently in the connections between TSOs and DSOs to ensure sufficient capacity at the DSO-level to connect customers.

Please explain your reply providing, where possible, qualitative and quantitative evidence.

The diversity and complexity of the above-mentioned barriers shows that there is no monocausal solution or single actor that can solve the current challenges alone. To successfully overcome some of the core barriers a good cooperation and exchanges between levels (EU, national, local), actors (institutional, non-institutional) and tools (legislative and non-legislative measures) is central. As mentioned in Q1 some challenges can only be solved with pro-active EU-engagement and leadership (e.g. supply chains) while others remain more local/national (e.g. regulatory frameworks, permitting) but require indirect EU support via clear guidance. Also, given the diversity and local nature of DSOs some of the solutions for overcoming challenges might differ from TSOs solutions. While DSOs might sometimes need a more local approach, the EU-level (DSO Entity) can still support by sharing good practices and fostering further and gradual alignment and cooperation [bottom-up].
Concrete topics:
Insufficient financing and regulatory uncertainty are marked as the most pressing barriers above. As regulated entities, DSOs are highly dependent on the regulatory framework to ensure their financing. In a changing energy system, regulatory frameworks need to adapt towards a more long-term, forward-looking and anticipatory approach Despite small improvements in the recent EMD-reform (2024/1747) Art. 18(2)) which added that the tariff methodologies shall also consider ".. to contribute to the achievements of the objectives set out in NECPs" they seem still too vague to ensure a more holistic approach to efficiency when protecting consumers: efficiency does not mean the lowest costs in all situations, but also the reliable availability of assets and services when needed. Therefore, the EU-level should give a clearer guidance to NRAs to ensure that grid investments are aligned with the European Climate and Energy objectives as well as prepared for increasing needs for climate adaptation and prevention of physical and cyber attacks. Longer-term planning on the DSO-side combined with an anticipatory regulatory approach and a greater focus on DSOs in EU funding guarantees electrification of transport and heating as well as that renewables can be connected on time and that positive (price) effects from cheap renewables will be felt in the medium-term. In many circumstances anticipatory investments will be more efficient and faster. Adequate compensation in combination with easier access to EIB and EU financing to de-risk projects is central to acquire the required capital.
Protracted permitting procedures and interrupted supply chains are also ranked high and are central external factors that hamper grid build-out. The acceleration of permitting processes, the simplification of public procurement, faster access to critical raw materials and supply chains and the promotion of skilled workforce are central.

Topics not explicitly mentioned in the table but that are highly relevant are:

- The right conditions and instruments for DSOs for active grid management, market facilitation and consumer engagement: To ensure active grid management, DSOs need to be equipped with the right tools to efficiently manage available grid capacity (e.g. implicit and explicit flexibility solutions such as flexible connection agreements, more capacity-based tariffs and the development of local flexibility markets). Such solutions support DSOs in efficiently using existing grid capacity and can contribute to reducing the need for immediate infrastructure investments. At the same time, consumers are made aware of grid needs and can earn monetary remuneration for a more grid-friendly behaviour. The digitalisation of the grid is a prerequisite to enable most of these solutions and empower consumers.
- The timely adoption of secondary acts on technical rules: Ensuring that the work in progress is delivered on time to improve the technical conditions for grids and set the right conditions in place without delay.

EU Infrastructure planning

Requirements for planning of transmission network development on a national and European level are included in the internal market legislation (for electricity as well as hydrogen and decarbonised gases) and

the TEN- E Regulation. They require the TSOs to put forward network development plans with at least a 10-year outlook for grid development biannually. At the European level, this is done through the Ten-year network development plan (TYNDP), currently developed by ENTSO-E and ENTSO-G.

* The following questions Q3 to Q6 apply to both electricity and hydrogen, please specify the sector you are referring to when answering these questions:

- (●) Electricity
- ( ) Hydrogen
- ( ) Both

Q3: To what extent do you agree with the following statements?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* The current framework in relation to the TYNDP and national transmission development plans provides for integrated and coherent planning at national and EU level	( )	(●)	( )	( )	( )	( )
* The TYNDP identifies all cross-border infrastructure needs	( )	( )	(●)	( )	( )	( )
* The TYNDP identifies all relevant projects to match the actual infrastructure gaps	( )	(●)	( )	( )	( )	( )
* The TYNDP should have a more top-down European approach to identify cross-border infrastructure needs, meaning going beyond a project bottom-up approach and ensuring that the planning aligns with EU and Member States' climate and energy objectives	( )	(●)	( )	( )	( )	( )
* The TYNDP should have a more top-down European approach to better link identified needs and priority projects of European interest	( )	(●)	( )	( )	( )	( )
* Projects at national level should align and support priorities of European interest	( )	( )	( )	( )	(●)	( )

Please explain your reply providing, where possible, qualitative and quantitative evidence.

As DSO Entity we acknowledge the need of a coordination between TSO-DSO and we also believe that planning of future intervention should consider a bottom-up approach. In fact, the majority of RES and future electrification of consumption (EV, HPs, etc) will be connected at the distribution level. Therefore, DSOs studies should be considered in the TYNDP, and DSOs must be involved as equal partners. A top-down approach may lead to underestimate local constraints and opportunities, with inefficiency on investments and delays in connections.

DSO Entity supports the work done by ENTSO-E in developing TYDNP scenarios and contributes with DSO members to providing support where needed during the scenario building as part of our mandate under the Electricity Market Regulation (2019/943/EU) to enhance TSO-DSO cooperation and promote operation and planning of distribution networks in coordination with the operation and planning of transmission networks.

* Q4: The needs identification at EU level should (you can choose more than one option):

- [ ] Cover cross-border projects within the EU
- [ ] Cover internal reinforcements in Member States necessary for cross-border projects
- [ ] Cover connections with third countries
- [ ] Cover non-infrastructure solutions (e.g. grid enhancing technologies)
- [ ] Follow a cross-sectoral approach
- [x] Other

* If other, please specify:

no further comments

* Q5: Do you agree with the following statement?
The frequency of the identification of system needs process (every 2-years) is fit for purpose.

- (•) Yes
- ( ) No

* Q6: Do you agree with the following statement?
The frequency of the scenarios building process (every 2-years) is fit for purpose.

- (•) Yes
- ( ) No

Please explain your reply providing, where possible, qualitative and quantitative evidence.

* Q7: Do you agree with the following statement?

The governance framework of the TYNDP, i.e. the role of all individual involved, should be revised.

- ○ Yes
- ◉ No

Q8: In your view, how can the needs for CO2 cross-border infrastructure in the EU be reflected in the PCI/PMI selection process under the TEN-E Regulation? Are there other ways the TEN-E Regulation could support the development of future CO2 cross-border infrastructure? Please explain

As the TEN-E Regulation is the only legislative file fully dedicated to grids and linked to CEF-E as the only funding tool fully dedicated to grid infrastructure, it should remain focused on energy infrastructure rather than open the scope to new beneficiaries. Given the relevance of electricity grids in general and smart grids project in particular to connect renewables (70% connected to the DSO grids), the neglect to fund such projects means that EU objectives are not optimally supported by CEF-E. The enlargement of the scope of eligible applicants to CO2- (and H2-)networks means greater competition for the same amount of money. In 2023 more than 2/3 of the distributed money went into the funding of CO2-networks which should be funded by other EU funds such as the innovation fund. Also, some technologies such as CCS is not allowed in all Member States.

Please explain your reply providing, where possible, qualitative and quantitative evidence.

Electricity network planning at national level

At a national level, transmission and distribution grid operators are obliged to establish respective network development plans (“NDP”) at least on a biannual basis, pursuant to requirements of Articles 51 and 32 of the Directive (EU) 2019/944. Plans should set out planned investment, taking into account future development of supply and demand, including renewables generation, flexibility and electric vehicles (EVs) recharging points.

Q9: Concerning the national transmission and distribution network development plans, do you agree with the following statements?

	Yes	No
* The existing legal framework for transmission network development plans is fit for purpose	◉	○

* There is a sufficient alignment between national transmission development plans between Member States	◉	○
* There is a need for better alignment between national transmission and distribution network development plans across the EU	○	◉

Q10: Concerning the distribution network development plans, to what extent do you agree with the following statements?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* The existing legal framework for distribution network development plans is fit for purpose	○	○	○	◉	○	○
* The coverage of small distribution system operators (DSOs) in the network planning is sufficient under the existing legal framework	○	○	○	○	◉	○
* There is sufficient transparency of distribution network development plans	○	○	○	◉	○	○
* The implementation of the distribution network development plans is sufficient and their objectives met	○	○	○	◉	○	○
* Distribution grid operators are equipped with sufficient capacity to properly plan distribution grids	○	◉	○	○	○	○
* There should be a stronger coordination of distribution network planning at EU level	○	○	○	◉	○	○

Other:

An integrated approach to network planning is key to facilitate efficient investments by combining longer-term planning (5-10 years) on DSO side with an anticipatory regulatory approach and greater focus on DSOs in EU funding. Network development under the anticipatory investment principles will be based on longer-term expectations; hence be more proactive than reactive, ensuring that grid capacity will be available. The ideal level of anticipation will be the one where the benefits of investing earlier outweigh the risk of underutilization of the grid assets.

Moreover, when developing scenarios further alignment and coordination should be encouraged at local and regional levels to ensure coherence and accuracy. Cooperation between TSOs and DSOs can play an important role, and DSO Entity can contribute to further building a coordinated approach to TSO/DSO planning. Beyond TSO-DSO cooperation, DSOs can also benefit from further relying on other external scenarios (as already done by some DSOs) as it can help further integrate EU and national perspectives in the DNDPs while remaining aware that these external scenarios may be outdated by the time the DNDP is developed and not be fully aligned with the DSO's own-drafted scenarios.

Other elements could also be further integrated into network planning such as new generation and/or demand that will materialize with sufficient certainty, even while utilization could be low in the short term; but also, negative impacts of delaying the decarbonization process due to a lack of grid capacity as well as the increased costs of expanding in several stages. Digitalisation also plays a role, and DSOs will leverage it to enhance network planning by analyzing high-quality, diversified data that accommodates evolving customer profiles and electrification trends.

One should also recognize that DNDP are not the sole legal vehicle to address scenario building, future investments, and cooperation with TSOs, or focus on specific type of customers. Likewise, there are other vehicles to address short term, project monitoring, or non-network related investments. DNDP should not address or collide with the existing vehicles.

Finally, the diversity and local nature of DSOs and their network operation influence grid planning. The local DSO planning differs from cross-border transmission planning and cannot be compared to the TSO-approach and it should be noted that some DSOs are exempted from the task of developing a Distribution Network Development Plan (DNDP). These specificities should hence be taken into account when considering future initiatives addressing DNDPs. Eventually, not all Members States have yet transposed the DNDP provisions set in the Clean Energy Package and therefore, the first step needs to be the full transposition of the provisions and the collection of experiences in different Members States before asking for a more harmonised approach. As a delivery from the Grid Action Plan, DSO Entity is actively working on gathering insights about how DNDP can be made more easily available and collecting existing good practices with inputs shared during the Copenhagen Fora 2024 and 2025.

Transparency on electricity grid hosting capacity

Article 31(3) of Directive 2019/944 (EU) requires that distribution grid operators provide system users with the information they need for efficient access to, and use of, the system, in particular on capacity available for new connections in their area of operation, information on connection requests as well as on how the available grid hosting capacity is calculated. The EU Action Plan for Grids further strives to enhance transparency by creating a common understanding on the grid hosting capacity calculation across Europe.

* Q11: Do you consider additional measures necessary to reduce grid connection lead times?

Should there be differentiated approaches for different types of uses (industry decarbonisation, residential heat, charging infrastructure)?

- ○ Yes
- ○ No
- ◉ Don't know

Permitting

Directive (EU) 2023/2413 (Renewable Energy Directive – RED III), Directive (EU) 2024/1788 (Directive on Gas and Hydrogen Markets), Regulation (EU) 2022/869 (TEN-E Regulation), and Regulation (EU) 2024 /1735 (Net-Zero Industry Act) establish provisions for the acceleration of permitting procedures for renewable energy generation, storage and energy networks including CO2 assets. Whilst some RED III provisions have yet to be transposed by Member States due to upcoming deadlines, permitting procedures are perceived as one of the main cause of delays in project implementation.

Q12: In order to accelerate permitting for energy networks, storage and renewables and CO2 assets, to what extent do you agree with the following statements?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* The permitting provisions of the TEN-E regulation are cleat and easy to implement	○	○	○	○	◉	○
* Permitting procedures should be fully digitalised	○	○	○	○	◉	○
* Availability and sharing environmental and geological data (and other technical data required) should be ensured	○	○	○	◉	○	○
* One-stop shops for network permitting should be introduced	○	○	○	○	◉	○
* Environmental assessments should be simplified and streamlined*	○	○	○	○	◉	○
* Legal deadlines for permitting procedures need to be shortened	○	○	○	○	◉	○
* Deadlines for the permitting of networks should be shortened or established where missing	○	○	○	◉	○	○

* Deadlines for the permitting of Projects of Common Interest and Project of Mutual Interest should be shortened and clarified to reflect the urgency in implementing these projects	○	○	◉	○	○	○
* The permitting procedures for storage should be simplified*	○	○	◉	○	○	○
* The permitting procedures for distribution network projects and small-scale renewable projects, as well as repurposing, refurbishment and repowering should be simplified*	○	○	○	○	◉	○
* The permitting procedures for hybrid projects (combining different technologies, including storage) and other innovative solutions should be simplified	○	○	◉	○	○	○

Other:

As part of the Grid Action Plan's delivery, DSO Entity has actively worked on permitting to identify remaining bottlenecks for DSOs, develop guidelines and collect good practices from DSOs on simplification measures (e.g. Spain), digitalization of procedures (e.g. France notably for environmental assessments, Estonia). In view of preparing the European Grids Package, we would like to share further insights on the subject.

First, it is of utmost importance to quickly transpose in national law and implement the recently adopted provisions pertaining permitting under the revised Renewable Energy Directive and Emergency Regulation, especially the overriding public interest principle which is highly relevant for DSOs to ensure fast connection of renewables. Benefits are expected from these recent provisions which were positively welcomed, but without implementation any direct impact is yet to be experienced on the ground.

Second, additional measures to support DSOs with permitting procedures for grid infrastructure projects also need to be further considered at the EU level as most of the provisions to simplify and streamline permitting for grid projects (e.g. priority status, one-stop shop, streamlined environmental assessment processes) are set in the TEN-E Regulation which is designed for cross-border projects, i.e. mainly applying to TSOs. Only electricity smart grid projects are eligible for DSOs and most of them do not end on PCI list as assessed in the Grid Action Plan, and DSOs have limited access to these simplification provisions as a result. The TEN-E is thus not the most suited tool to address permitting-related challenges for DSOs and new measures could therefore be envisaged under another framework. In general, a grid mainstreaming approach should be taken when assessing what else is still needed as to identify the challenges faced by grid operators both at transmission but also distribution level and propose fit-for-purpose measures. Further concrete recommendations for new measures are shared in the next section.

Finally, certain challenges faced by DSOs remain unaddressed such as issues pertaining access to land, lack of resources in administration, overlapping requests for documents from different authorities and in different formats, and misalignment between national and local laws (e.g. Spain). While compliance with the subsidiarity principle should be ensured, it is important to raise more awareness among Member States (potentially through EC guidelines) and acknowledge these challenges faced by DSOs when considering new provisions.

(*) Please specify:

To further support DSOs when applying for permitting procedures for grid infrastructure projects, the following additional measures should be considered:

- A more generalised use of one-stop shops in new provisions to further simplify procedures for DSOs, as they face various authorities and levels of responsibilities during permitting processes and that one-stop shops are provided under the TEN-E Regulation with hence limited application scope for DSOs.

- In the upcoming guidelines planned by the EC, incentives for Member States to designate dedicated grid areas (art. 15e, REDIII), in complement to the renewable acceleration areas (art. 15c), given their potential to streamline and simplify procedures for environmental assessments. Under art. 15e, other simplification measures could also be envisaged such as a more simplified approach to help reduce the number of competent administrative authorities involved in environmental authorisations, as well as further use of existing digital and geospatial tools and platforms to support and optimise the identification of areas with regular updated data including the environmental situation and environmental constraints.

- New provisions for competent authorities to further digitalize their permitting procedures (as DSOs are increasingly implementing for the management of grid connection requests) and set binding deadlines for permit issuance and granting of environmental authorization to further cut permitting times, increase transparency and accountability.

- Simplification measures such as the implementation of responsible declarations in place of the obtention of authorisation permits and/or tacit approvals, in particular for environmental permitting procedures in case of smaller projects with no expected significant environmental impact.

- Further alignment between permitting procedures for a RES project and the subsequent grid project to accommodate additional grid capacity by ensuring DSO compensation in case the RES project manager backs off. It will help encourage these procedures to run in parallel to reduce permitting times while providing guarantees for DSOs.

- In general, enlarged scope by addressing permitting procedures beyond only those for RES and storage projects as grid operators are facing barriers to permitting for connecting other types of installations such as recharging points for electric vehicles, heat pumps, etc.

Facilitating investments in grid infrastructure

Article 16 of the TEN-E Regulation facilitates investments with cross-border impact through a cross-border cost allocation (CBCA) framework where the relevant national regulatory authorities (NRAs) jointly agree on CBCA decision. Where there is no agreement among the NRAs, they may jointly request ACER to decide on the investment request including the CBCA.

Q13: To what extent do you agree with the following statements?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* The current cross-border cost allocation (CBCA) framework is fit for purpose	○	○	○	○	○	◉

* An investment request within the CBCA framework could also cover several projects ('bundling') to facilitate cost sharing amongst more Member States beneficiaries	○	○	○	○	○	◉
* The CBCA framework should be developed further to facilitate that investment costs are shared amongst countries, beyond hosting Member States, in proportion to the expected benefits	○	○	○	○	○	◉
* The role of involved actors (Member States, NRAs, ACER, TSOs) should be revised to facilitate the process*	○	○	○	○	○	◉

Other:

(*) Please specify:

Q14: To what extent other instruments or tools (beyond CBCA) should be considered or modified to facilitate financing of cross-border infrastructure?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* Inter-Transmission System Operator Compensation (ITC) mechanism	○	○	○	○	○	◉
* Sharing of congestion income	○	○	○	○	○	◉
* Common/regional regulated asset base (RAB)	○	○	○	○	○	◉
* Ex post conditionalities	○	○	○	○	○	◉

Other:

Funding the necessary grid reinforcements and adaptations will require mobilisation of significant financial resources. Grid operators, both at the transmission and distribution levels, are faced with an unprecedented increase in the volume of capital expenditure possibly affecting credit rating and access to capital.

Funding the necessary grid reinforcements and adaptations will require mobilisation of significant financial resources. Grid operators, both at the transmission and distribution levels, are faced with an unprecedented increase in the volume of capital expenditure possibly affecting credit rating and access to capital.

Q15: In your view, which financial obstacles are most relevant for investments in infrastructure projects?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* Access to debt	○	○	○	◉	○	○
* Access to equity	○	○	○	○	◉	○
* Access to counter-guarantees	○	○	◉	○	○	○
* Regulatory risk	○	○	○	○	◉	○
* Access to public funding (EU/national)	○	○	◉	○	○	○

Other:

Q16: If needed, what financial measures could be considered to further support transmission infrastructure? Please specify.

Q17: If needed, what financial measures could be considered to further support distribution infrastructure? Please specify.

Before discussing potential financial measures, we want to indicate that any mechanism aimed at facilitating access to finance by Distribution System Operators (DSOs) should be tailored to a specific objective and consider the characteristics of these companies (in terms of ownership, concentration, size and access to financial markets).
Therefore, when designing these mechanisms, one should first identify the objective to be achieved and then tailor the mechanism to the characteristics of the DSOs and the framework where they operate (e.g. national laws and regulations).

With that in mind, the first group of proposed measures will aim to facilitate access to private funding. The table below shows potential financial measures that can be put in place for some potential objectives:

A) Increase the capacity to finance investment using internal finances: Potential mechanism -> To reduce the DSOs' need to use external funds, the regulatory framework should facilitate the creation of internal funds. This, however, does not necessarily translate in a need to increase the profit of the company (or reduce dividends). Examples of regulatory tools facilitating efficiency and innovation are benefit sharing mechanisms, reward focused incentives or recognition of assets in RAB.

B) Increase the equity in the current DSOs: -> Examples of mechanisms that could facilitate the access to equity by DSOs are:

- o Direct investment by the national and/or regional governments in publicly owned DSOs
- o Direct grants/loans to current owners
- o "Aiming up" when developing regulatory returns on equity

C) Reduce consumers tariffs by reducing financial costs to avoid problems of affordability and competitiveness: Potential mechanism -> Public funds could be used to reduce the financial costs faced by the DSOs. This could be done via solutions such as:

- o Provision of cheaper access to debt
- o Use of regulatory tools to de-risk investments
- o Loans aimed at smoothing the effect of investment on tariffs for (specific groups of) consumers

D) Facilitate the access to additional debt by reducing the debt in the balance sheet of the company: Potential mechanism -> One tool to achieve this objective is the creation of Special Purpose Vehicle (SPV). These tools can take different forms but always with the objective to take some assets (physical or financial) from the balance sheet of the company while facilitating a capital allocation (i.e. the capital can be re-invested in other assets). Two potential examples of SPVs are:

1- An SPV associated to physical assets
2- An SPV associated to financial assets

The second of potential measures would aim at using public funding to support the development of distribution networks. Concrete (non-exclusionary) options of how to achieve European sustainability objectives while protecting consumers, ensuring European competitiveness and reducing dependency on external energy sources are provided below:

- Introduction of a new dedicated grid facility
- Earmarking of EU funds for DSO-projects inside of existing programs not directly administered by the EU
- TEN-E and its associated CEF Energy program

Finally, public funds could also be used to mitigate the effects the energy transition could have of consumers. Some examples of measures that could be introduced included:

1) to support on the costs of electrification of residential customers, services and industries. This contributes to increasing the electricity demand and flattens the higher network costs among larger consumption;
2) to stabilise network unit costs thus minimising the effect of the inclusion in the RAB of the increased investment through anticipatory criteria; and
3) Synchronise the time of the investment with the time of the increase in consumption. Investments identified using anticipatory criteria could have a low demand in the short-term. Public funds could be used to postpone the effect of these investments on customers' bills.

Q18: If needed, what financial measures could be considered to further support hydrogen infrastructure? Please specify.

Q19: If needed, what financial measures could be considered to further support CO2 infrastructure? Please specify.

Supply chains

Constrained supply chains and a lack of skilled workforce are being cited the major hurdles hindering grid development. The 2023 Action Plan for Grids included concrete action to address the often fragmented technical requirements for grid components through a common specifications workstream, as well as the need for greater visibility on future investments planned. The Union of Skills package adopted on 5 March 2025 targets the identified gap in skills - particularly those needed for the energy transition, investing in people for competitiveness, reinforcing the Competitiveness Compass and the Clean Industrial Deal.

Q20: To what extent do you agree with the following statements?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* The current network development plans at EU and national level provide sufficient visibility for the supply chain for the purpose of investment planning	○	○	◉	○	○	○
* There is a need for better visibility to ensure sufficient investment in the supply chains	○	○	○	◉	○	○

* Please specify:

The current network development plans offer valuable visibility into future grid developments and help raise awareness of upcoming energy needs towards manufacturers. However, turning this visibility into actual investments in increased supply capacity requires a greater level of certainty and commitment (e.g. regulatory certainty that projects in DNDP will be realized/financed). DSOs are continuously working on improving their DNDPs to enhance visibility. However, it should be noted that better visibility in DNDPs is not a silver bullet that will automatically lead to increased manufacturing capacity in the EU. Other initiatives supporting the European supply industry to increase their capacity in the EU (e.g. de-risking measures) will also be needed to tackle challenge.

Q21: To what extent do you agree with the following statements?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* There is a need for further harmonisation of equipment requirements within the EU, for the purpose of scaling up supply chains and their repair capacities	○	○	◉	○	○	○

Other:

Efforts to increase decarbonisation and electrification have escalated the demand for equipment on the whole electricity value chain. DSOs are already working to enhance their DNDPs, providing greater visibility to manufacturers on distribution grids. This growing synergy between manufacturers and system operators will strengthen European supply chains, by better identifying investment needs into the right areas for capacity building.

In a 2024 survey of DSO Entity the responding DSOs highlighted that long lead times and troubles in contracting vital equipment such as transformers, cables, switching equipment, is significant. Key causes include the scarcity of certain individual components (e.g. chips or (affordable) raw material to produce them - copper, steel or aluminium), new sustainability requirements (such as the ban of SF6-switchgear), shipping problems or competition with other energy actors such as renewable energy producers for equipment, and finally a lack of qualified labour impeding the whole supply chain.

DSOs are especially impacted given their local characteristic and diversity which complexifies procurement processes. Electricity distribution systems require more than 40,000 components tailored to local specificities, increasing fragmentation not just across countries but even withing companies operating in different regions. This allows for less harmonisation of materials, specifications, or processes among more than 2,500 electricity DSOs in Europe.

Several initiatives exist in which DSOs have started practical work in search of alignment on technical standards for components or certification procedures, for better asset interoperability. In the context of an open and competitive EU market, those initiatives have been taking the form of joint-procurement initiatives and platforms, alliances and consortiums, pre-qualification systems for procurement processes, and other transparent proactive alignment between DSOs, and between system operators.

In addition to those proactive and voluntary measures, the development and publication of Distribution Network Development Plans (DNDPs) is pacing up, in accordance to Article 32(3) and (4) of the Electricity Market Directive (2019/944). DNDPs are publicly available already more than 17 countries, and more expected to enforce the new obligation in the upcoming year. No harmonized DNDP among European countries and DSOs has yet been implemented, giving a diversity of models and practices. While some DSOs do not yet make their plans publicly available, some provide great levels of granularity, with breakdowns of equipment needs being made available. DSO Entity is actively working to enhance the effectiveness and viability of such plans.

Despite measures developed by DSOs among themselves and beyond their sector and recently announced activities at the greater support will be needed on all levels to solve the issues. An important aspect will be the revision and simplification of the 2014/25/EU Directive on procurement by entities operating in the water, energy, transport and postal services sectors which has failed to significantly improve competition in regulated sectors. This may be due to the complexity and bureaucratic burden that discourages small and medium-sized enterprises (SMEs) from competing or the lack of uniform transposition of the Directive across Member States which led to a fragmented and uneven procurement environment. It will be essential that the revision strikes the right balance between environmental goals, procurement efficiency, and flexibility as excessive regulations can hinder competition, stifle innovation, and limit access to critical resources.

* Q22: Is there a need for additional EU action to address supply chain bottlenecks in the energy sector, following recent initiatives?

- Strongly disagree

- Slightly disagree
- Neutral
- Slightly agree
- (•) Strongly agree
- Don't know

* Q23: Is there a need for additional EU action in the field of skills for the energy sector, following recent initiatives, such as the Union of Skills?
  - Strongly disagree
  - Slightly disagree
  - Neutral
  - Slightly agree
  - (•) Strongly agree
  - Don't know

Digitalisation and resilience

Digitalised and resilient grids are essential from a security of supply perspective. Actions were put forward also as part of the Action Plan for Grids adopted in 2023. By the end of 2025, a common Technopedia Platform operated by the ENTSO-E and the EU DSO entity should materialize, providing an overview of existing grid enhancing technologies. Enhancing the security and resilience of cross-border energy infrastructure projects is crucial for ensuring a reliable supply of energy. It is also a key priority of the current Commission mandate, especially in the context of emerging risks such as climate change impacts and malicious attacks on critical energy infrastructure.

Digitalisation

* Q24: Do you agree that there is a need for additional EU action concerning visibility and quantified benefits of innovative, digital and grid enhancing technologies?
  - Strongly disagree
  - (•) Slightly disagree
  - Neutral
  - Slightly agree
  - Strongly agree
  - Don't know

* Q25: In your view, should there be further measures to increase the efficiency of the existing grid?
  - Yes

No

Security and resilience

Q26: To what extent do you agree with the following statements?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* The current EU legal framework, beyond the TEN-E Regulation, sufficiently addresses resilience and security criteria for cross-border infrastructure projects including recent and emerging risks such as climate change impacts	○	○	○	○	○	◉
* Projects of common interest (PCIs) and Projects of mutual interest (PMIs) should be subject to additional security criteria to reduce exposure and/ or enhance readiness against physical and cyber risks	○	○	○	○	○	◉
* The existing EU legal framework for grids, beyond the TEN-E Regulation, allows to avoid non-trusted actors' participation in critical cross-border infrastructure projects	○	○	○	○	○	◉

Other (please specfy):

Flexibility

Pursuant to the existing EU regulatory framework, distribution network development plans shall provide transparency on the medium and long-term flexibility services needed and consider alternatives to grid development (such as flexibility, demand response or innovative grid technologies). There is also ongoing work between TSOs, DSOs, ACER and the Commission following up on the most recent revision of the Regulation (EU) 2019/943 on the internal market for electricity in 2024, mandating the regulatory authorities or dedicated authorities to conduct biannual assessment of flexibility needs. The relevant methodology, explaining inter alia the link to the network planning should be adopted in Q3 2025.

* Q27: In this context, do you agree that the existing framework is sufficient for considering flexibility needs in network planning and development

- ○ Strongly disagree
- ○ Slightly disagree
- ○ Neutral
- ○ Slightly agree
- ◉ Strongly agree
- ○ Don't know

Simplification

Q28: In view of simplifying the PCI/PMI selection process, to what extent do you agree with the following statements?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* The current frequency of the PCI /PMI selection process (every 2 years) should be decreased e.g. every 3 years	○	◉	○	○	○	○
* Project with PCI/PMI status should not be required to reapply for each PCI/PMI process, provided certain conditions are met (e.g. sufficient maturity, progress)	○	○	○	○	◉	○
* The application process should be further simplified	○	○	○	○	◉	○

Please specify your reply providing, where possible, qualitative and quantitative evidence.

DSO Entity submitted a questionnaire to its members, on the topic of EU funding. 65% of the respondents had applied for EU funding, and participated in 193 EU funded projects. This survey also allowed to interrogate them on the challenges and hurdles encountered by in their funding acquisition, where they reported the main obstacle to be the administrative burden on applying and managing EU-funds. Some even reported not having applied to European funding for this reason. DSO also reported that the perceived ineligibility of the DSOs for funding, the burden of the CEF-E PCI/PMI process and the difficulties for DSOs to prepare important projects within the short deadlines of the process.

Applying for funds requires submitting multiple forms and a ready-to-implement project within short deadlines. This leads to DSOs bearing the risk of investing significant human and financial resources in preparing a funding application which they will be unable to recover if the application is unsuccessful. Furthermore, important projects that create value in the context of European funding programs (e.g., provide significant catalytic effects) need time to prepare, making short deadlines very challenging to meet. This is particularly relevant for small DSOs, which also may not have the required expertise and resources within their organization.

The CEF-E PCI/PMI Scope is limited for DSOs as it is designed for the TSO and cross-borders. In the €5,324 million allocated to energy projects by the CEF Program, only € 237 million were allocated to DSOs (smart grids projects) between 2014-2020. Generally, while successful projects make a major difference for the successful DSOs and the regions where they stimulate investments, the funds allocated via PCI/CEF to DSO are too small to make a difference on a European scale. The lack of DSO representation in the general envelope of the Program is therefore perceived as an additional deterrent for DSO-applications, given the burdens undertaken presented above.

Additionally, it should be noted that eligible DSO projects have been selected to be featured on the PCI-lists, without being among the beneficiaries of the CEF-E funds. This decoupling of the two proceedings complexifies the processes, adds barriers for DSOs, and leads to even more under-representation of the distribution level in the EU funding landscape.

Q29: In view of additional simplification measures, to what extent, do you agree that there is potential for simplification in the following areas?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* TYNDP process: Scenario building	○	○	○	○	○	◉
* TYNDP process: infrastructure gap identification	○	○	○	○	○	◉
* TYNDP process: Project assessment	○	○	○	○	○	◉
* Offshore network development planning process	○	○	○	○	○	◉
* PCI/PMI project monitoring and reporting	○	○	○	○	◉	○

Please specify your reply providing, where possible, qualitative and quantitative evidence.

Contact

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