



Annual Work Programme 2025

DSO Entity at a glance

Who are we

DSO Entity is the legally mandated EU body for European Distribution System Operators (DSOs), uniting more than 830 DSOs of all sizes in Europe, and connecting more than 250 million electricity customers across all 27 EU member States. It was formally established in June 2021 and mandated by the EU's Electricity Market Regulation to promote the completion and functioning of the internal market and help drive Europe's energy transition.

DSOs are the backbone of the changing energy system:

- ▶ DSOs integrate the largest share of renewable and intermittent power sources.
- ▶ DSOs manage volatile energy supply and demand challenges in flexible and decentralised grids.
- ▶ DSOs manage the digitalised grid and cooperate with Transmission System Operators (TSOs).
- ▶ DSOs enable customers to participate in an increasingly decentralised energy world.

DSO Entity offers its members formal representation to the European Commission by providing technical expertise on electricity distribution grids, which operate primarily on the low- and medium-voltage part of the electricity network connecting households, industries, and other end-users.

Our mission

By taking an integrated view of the energy system, which includes customers, DSO Entity aims to strongly contribute to the energy transition, together with the entire energy ecosystem.

DSO Entity therefore acts as a strong and credible platform that

- ▶ Develops future proof network codes that reflect the new role of DSOs in the energy transition
- ▶ Provides neutral technical guidance on the integration of renewable energy sources, fostering efficient market performance
- ▶ Strengthens cooperation between DSOs and creates an interactive forum of expertise for its members; and
- ▶ Facilitates DSO-TSO cooperation, as well as dialogue with other stakeholders.

Our core tasks

DSO Entity's missions and mandates inspired its three pillars of activities:

- ▶ Participating in drafting the network codes and guidelines which are relevant for DSOs;
- ▶ Promoting the optimal and coordinated planning and operation of DSO and TSO networks; and
- ▶ Organising Expert Groups and forums of expertise to share knowledge and best practices on relevant topics relating to the energy transition.

By participating as a member, DSOs can actively contribute to create futureproof conditions for DSOs to actively facilitate energy transition.

Our values

DSO Entity is committed to ensuring a diverse and balanced representation of all electricity DSOs within the European Union. It provides a platform where DSOs can contribute to developing network codes, providing neutral expertise and sharing knowledge and best practices. DSO Entity strives for transparency in all its workflows and embraces an open-minded, fact-based and customer-centric approach. Specific attention is paid to the feasibility and proportionality of network codes and country-specific differences. Applicability for all small and large members is considered central.

Our vision

In line with the European climate and energy objectives, DSO Entity is committed to supporting the path towards carbon neutrality in Europe by 2050 and has developed its vision as follows:

DSO Entity will support DSOs to actively facilitate the transition to a CO₂-neutral energy system in the next decades, ensuring security of supply with future-proof network codes and with enhanced collaboration between TSOs and DSOs.

Foreword by the President and Secretary General

To be added at the end of the process

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1. Introduction

“If there is one horizontal area in the energy sector whose importance cannot be overstated, it is the EU’s energy grid.”

Mario Draghi, The future of European Competitiveness ¹

2025 is the first full year of the new legislative term (2024-2029) and will be crucial in defining the strategic priorities of the EU for the next five years. The Draghi report and its recommendations, published in September 2024, are expected to have a considerable influence on the priorities and activities to be delineated by the European Commission for this term. Seeing grids so prominently on the agenda of the Draghi report gives confidence that the grid momentum, which was induced with the publication of the European Commission’s communication COM(2023)757 “Grids, the missing link – An EU Action Plan for Grids” in late 2023, is here to stay.

EU Energy policy: between sustainability, competitiveness and resilience

The next five years will be decisive for reaching Europe’s energy and climate objectives for 2030 while still guaranteeing a reliable and continuous flow of electricity at a competitive and affordable price for households and industries. The increasingly challenging geopolitical situation and the war in Europe have raised the EU’s awareness of the mounting physical and cyber-related threats against the electricity infrastructure, which serves as a prerequisite for a well-functioning society and economy. Distribution and Transmission System Operators stand together at the forefront of this development and will be important to support the European Community in its efforts to master the clean energy transition in a secure and economically efficient manner. The increasing relevance of the distribution grid in all these aspects due to the significant increase of integrated decentralised energy resources (DER) shows the need for close cooperation and interaction between DSO Entity, ENTSO-E and European stakeholders.

DSO Entity’s expected role in 2025

Given the challenging starting situation, it is expected that DSO Entity’s mandated tasks and activities will continue to grow in its 5th year of existence. Tasked with the promotion of the functioning of the European electricity market and the facilitation of the energy transition, DSO Entity together with its 830 members is working daily to accomplish its mandate, on most tasks in close cooperation with ENTSO-E and TSOs. As a new body only founded in 2021, most of the groundwork for the organisation and governance, including the establishment of Expert Groups (EGs) and Task Forces (TFs), was laid down in 2022 and 2023. While 2024 marked an intensification and professionalisation of the work with a growing staff and active member engagement, this development is expected to further continue in 2025.

¹ Mario Draghi (2024). *The future of European Competitiveness – A competitiveness strategy for Europe*, European Commission. Available online: https://commission.europa.eu/topics/strengthening-european-competitiveness/eu-competitiveness-looking-ahead_en#paragraph_47059

Objective and structure of the Annual Work Plan 2025:

DSO Entity has a legal obligation to present each year an Annual Report, informing about the delivered mandated tasks, and an Annual Work Programme, laying out the planned activities for the next year (Electricity Market Regulation, 2019/943/EU², Art. 55 (2d)). While in previous years both aspects were tackled in one publication, the two documents will be separated into two distinct publications as of 2025. The Annual Report of 2024 is expected to be published in the first quarter of 2025.

The Annual Work Plan 2025's (AWP25) overall objective is to meet DSO Entity's legal obligation and to keep all its members and stakeholders informed about DSO Entity's structure and governance as well as its mandated tasks and planned activities, as prescribed by the Electricity Market Regulation (2019/943/EU)³ and other legislative acts.

Overview of DSO Entity's structure :

This AWP25 gives an overview of the expected delivery of the mandated tasks of DSO Entity in 2025, with a special focus on the work of its EGs and TFs. The AWP25 is structured into five parts and provides comprehensive information about the work plans of each EG and TF of DSO Entity

Chapter 1 sets the scene for the expected environment in which the AWP25 will be delivered and summarises the AWP25's contents, objectives and consultation process.

Chapter 2 gives an overview of DSO Entity's mandated tasks, governance, structure, and core principles.

Chapter 3 describes DSO Entity's expectations of the more general, strategic European energy developments in 2025 and how they might relate to its ongoing internal work. Furthermore, horizontal aspects of the Work Programme, the Knowledge Sharing Strategy and Communication Strategy are described.

Chapter 4 depicts the specific work priorities envisaged by all EGs and TFs, i.e. their Work Programs and concrete deliverables.

Chapter 5 consists of a summary and conclusions, highlighting once more DSOs' central role and vision in the energy transition.

² European Parliament and Council Regulation (EU)2019/943 of 5 June 2019 on the internal market for electricity [2019] OJ L158/54

³ Op cite

Overview of the conducted consultation process:

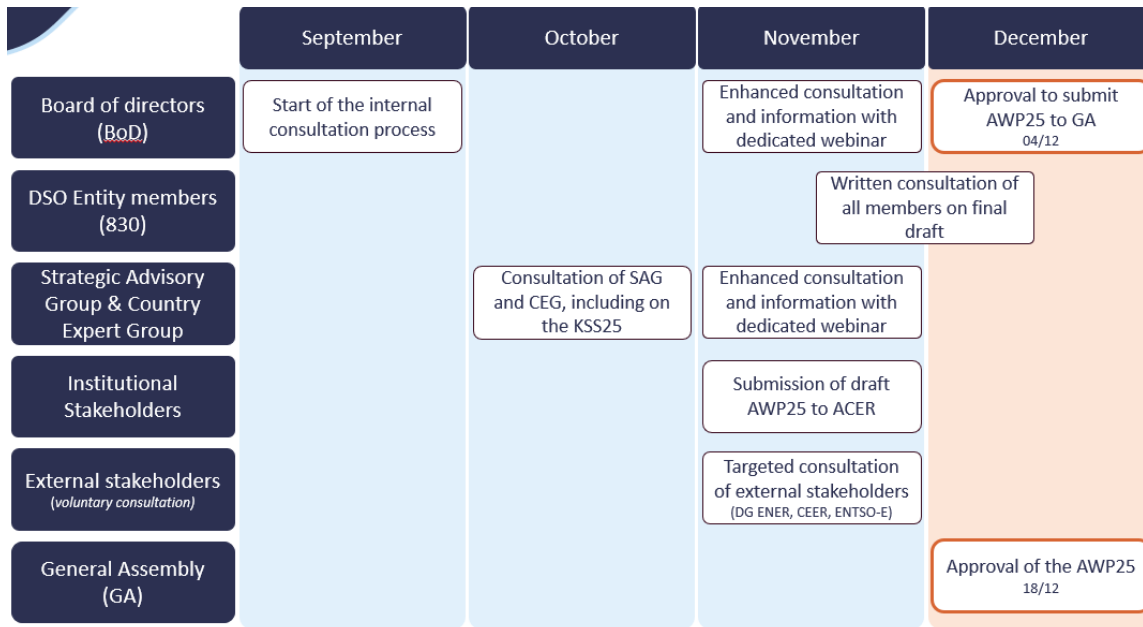


Figure: Overview of the consultation process for the AP25

2. DSO Entity's architecture: Objectives, mandated tasks; governance and guiding principles

2.1. Background of DSO Entity's establishment: Role, objectives, and mandated tasks

DSOs' growing relevance in European energy policies

Within the last two decades, the scope and relevance of the European energy policy has grown immensely. Today, all DSOs are deeply affected by European legislation which serves as the basis for most of the adopted and implemented energy-related laws in the 27 Member States. **Hence, European provisions are highly relevant for DSOs when performing their daily activities, no matter if they are small and local or large and transnational.**

Developments in the last ten years have entailed a closer relationship between DSOs and the European institutions. The EU's decarbonisation objective leads to more decentralisation, thus, engendering an enhanced importance of the distribution grid and greater responsibilities in strong interaction with the TSO's part of the system, but also between DSOs in countries where they operate alone at medium-voltage level. **The distribution grid, and thus the role of DSOs, has become more relevant regarding the delivery of the EU's climate and energy objectives**, such as the integration of renewables, the roll-out of electric vehicles, the use and management of smart flexibility. Given this increased need to connect DER to the distribution level as well as the digitalisation and smartening of the grid, the role of DSOs in guaranteeing a reliable and (cyber-) resilient system, – a core prerequisite for a thriving EU economy, has become even more important.

DSOs as (technical) enablers to accelerate the achievement of the EU's climate and energy objectives:

Figure 2 shows how the successful implementation of the European objectives is closely interlinked with the daily (technical) work of DSOs and why the latter are vital for their achievement. High-level political objectives will only be achieved if the technical preconditions in the system and market are right. As a result, technical bodies are pivotal for enabling and facilitating the transition. In recent years, decision-making at the European level has become more technical, which can be seen in the establishment of network codes and in general in the increase of implementing and delegated acts. This more technical-driven political environment highlights the growing relevance of technical expert bodies such as DSO Entity to help solve political problems. In the end, most ***political questions require technical answers***.

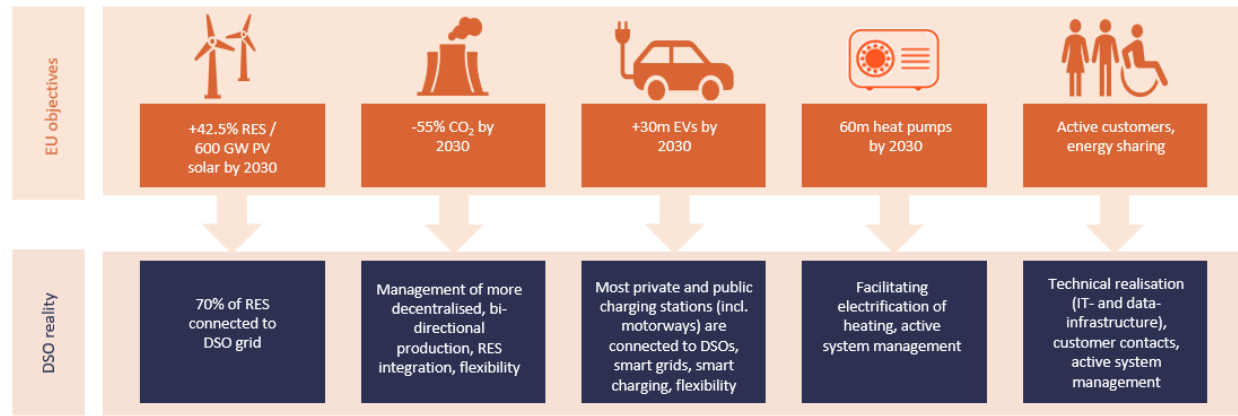


Figure: Impact of the EU energy and climate objectives on the distribution grid

Network codes and DSO Entity's establishment in 2021:

Given the need for common technical rules at the European level to foster the competition in the internal energy market, specific binding rules for the harmonisation of previously nationally oriented electricity markets and regulations for the operation of Europe's cross-border electricity networks were set. These so-called network codes were introduced in 2009 with the Third Energy Package together with ENTSO-E, the European Network of Transmission System Operators for Gas (ENTSO-G) and ACER's establishment. By 2017, eight electricity network codes and guidelines entered into force: three codes for grid connection (RfG, DCC, HVDC)⁴, three codes for markets (FCA, CACM, EB GL)⁵ and two codes for system operation (SO GL, ER)⁶.

As a result of the network codes' strong cross-border aspect, DSOs were originally missing and not given an official role in the network code drafting process. With guidance of ACER and the EC, the task of drafting and implementing was carried out solely by ENTSO-E in cooperation with different stakeholders. DSOs were considered as one group among these stakeholders and their involvement was largely facilitated through the existing DSO associations at the EU level. Decarbonisation and decentralisation as well as an increase in DER and active customers increased the relevance of network codes for DSOs and raised the question of their lack of formal representation.

The **Clean Energy Package** finally enshrined the factual importance of DSOs in the EU's energy legislation with the Electricity Market Regulation (2019/943/EU), thus **establishing DSO Entity** (formally founded in June 2021). DSO Entity has the clear mandate "to promote the completion and functioning of the internal market for electricity, and to promote optimal management and a coordinated operation of distribution and transmission systems" as defined in the Electricity Market Regulation (2019/943/EU) (Art. 52)⁷.

⁴ Commission Regulation (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for grid connection of generators; Commission Regulation (EU) 2016/1388 of 17 August 2016 establishing a Network Code on Demand Connection; Commission Regulation (EU) 2016/1447 of 26 August 2016 establishing a network code on requirements for grid connection of high voltage direct current systems and direct current-connected power park modules.

⁵ Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation; Commission Regulation (EU) 1222/2015 of 24 July 2015 establishing a guideline on capacity allocation and congestion management; Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing.

⁶ Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation; Commission Regulation (EU) 2017/2196 of 24 November 2017 establishing a network code on electricity emergency and restoration.

⁷ Op cite

Together with its members, and in close cooperation with ENTSO-E, DSO Entity works on the establishment of technical rules to make the EU’s climate objectives a reality.

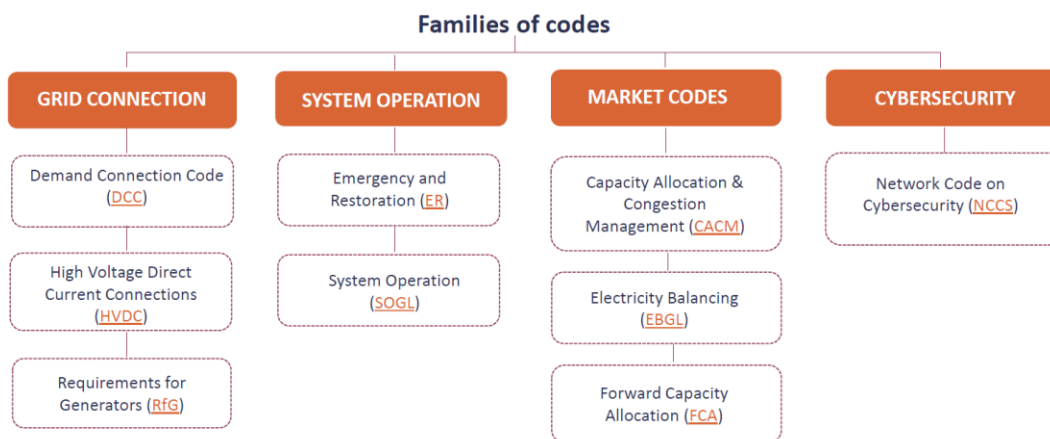
In 2021 ENTSO-E and DSO Entity signed a **Memorandum of Understanding (MoU)** consolidating the cooperation between the two entities, specifically regarding the development of network codes and guidelines. In the MoU both bodies expressed “*their willingness to cooperate on and ensure transparency in the development of all new network codes or guidelines, regardless of whether ENTSO-E or DSO Entity have been given the lead [...]*”.⁸



INFO BOX A

European law’s peculiarity, the electricity network codes are a set of rules aiming at harmonising the EU internal electricity market by covering requirements for power generation, demand, grid connection, network operations, and the wholesale market participation. In some cases, the rules are adopted as “guidelines” rather than “network codes”. Due to the nature and characteristics of the rules, the network codes and guidelines are legally binding and directly applicable to allow the implementation of the same set of rules across all Member States.

The first set of network codes and guidelines were adopted under the Electricity Market Regulation (EC) No 714/2009 creating three families of codes. With the Clean Energy Package, the specific process to develop network codes and guidelines was aligned with the Treaty on the Functioning of the European Union specifying that some network codes and guidelines will be adopted as delegated acts and some network codes as implementing acts, both legally binding regulations. Although only a structural change at first sight, this change actually gives clear guidance for the development phase of the rules as delegated acts, as well as their adoption. The Clean Energy Package includes two new acts already: the Network Code on Cybersecurity (NCCS) is published on 11 March 2024⁹ and the Network Code on Demand Response (NCDR) under development since March 2023 and expected to be finalised in 2025. Both acts are seen to expand on or be an addition to the existing code families



⁸ Memorandum of understanding between ENTSO-E and EU DSO Entity (11 January 2022). Available online: <https://eudsoentity.eu/publications/download/10>

⁹ Commission Delegated Regulation (EU) 2024/1366 of 11 March 2024 establishing a network code on sector-specific rules for cybersecurity aspects of cross-border electricity flows.

Assigned tasks: a growing mandate

According to the Electricity Market Regulation (2019/943/EU), DSO Entity is mandated to carry out several core tasks. To simplify, DSO Entity usually summarises its core tasks in three pillars which are (1) developing technical rules such as network codes and guidelines, (2) cooperating with the TSOs / ENTSO-E, and (3) identifying and sharing best practices in the form of Knowledge Sharing.



Figure: DSO Entity's three pillars of activities

While the Electricity Market Regulation (2019/943/EU) outlines DSO Entity's core and wide range of tasks and responsibilities, such as the development and proposal for amendments of network codes and guidelines (Art. 59-60) and the adoption of best practices on the coordinated operation and planning of transmission and distribution systems (Art. 55), DSO Entity's portfolio of responsibilities does not end there. Other legislative and non-legislative acts attribute additional tasks and mandates to DSO Entity. Table 1 provides an overview of the most relevant tasks currently mandated to DSO Entity.

Table X reveals that **recent legislative and non-legislative acts from late 2023 and 2024 significantly added to DSO Entity's portfolio** and strengthened its profile and responsibilities. For instance, through new obligations in the Electricity Market Design¹⁰ Directive (EU) 2024/1711 and Regulation (EU) 2024/1747, in force since 16 July 2024 that assigns DSO Entity jointly with ENTSO-E the task to develop a methodology for the assessment of flexibility needs (Art. 19c). Furthermore, the non-legislative Grid Action Plan (COM/2023/757)¹¹ published in late November 2023 assigns seven of its 14 Action Points to be delivered or supported by the DSO Entity within 18 months. While some Action Points remain to be delivered in 2025, several actions could already be concluded in 2024, such as intensifying the sharing of best practices on distribution network development plans; providing active support to the Pact for^{12[Obj]} together with ENTSO-E, ACER and the Renewable Grid Initiative (RGI) or giving guidance for members to apply for smart grid projects as Projects of Common Interest (PCIs) (for more details, see chapter 3.2. including the Grid Action Plan).

¹⁰ Directive (EU) 2024/1711 and Regulation (EU) 2024/1747 of the European Parliament and of the Council of 13 June 2024 as regards improving the Union's electricity market design, as well as Regulation. Available online.

¹¹ Op Cite

¹² Commission Pact for Engagement of 28 November 2023 "A Pact for Engagement - Ensuring early, regular and meaningful stakeholder engagement in grid development". Available online: <https://energy.ec.europa.eu/system/files/2023-11/Pact%20for%20Engagement%202023.pdf>

CROSS-CUTTING MANDATE (IN REGULATION)			
Cooperation with ENTSO-E and TSOs		Identification and sharing of best practices	
NETWORK CODES (IN REGULATION)		TECHNICAL REGULATIONS (IA, DA)	
NC Cybersecurity (<i>Implementation & TCM development</i>)	NC Demand Response (<i>Joint proposal submitted to ACER</i>)	Joint Working Group with ENTSO-E (<i>IR on electricity metering and consumption data, IR on data for customer switching & for DR</i>)	Participation in developing data reference models & requirements (<i>EPBD and EMD data requirements for energy sharing and buildings</i>)
NCs Grid Connection (<i>Amendment</i>)			
MANDATES FROM OTHER LEGISLATIVE ACTS		TASKS ASSIGNED IN NON-LEGISLATIVE ACTS	
Development of a methodology to assess flexibility needs w/ ENTSO-E (<i>Electricity Market Regulation</i>)	Participation in TYNDP development scenarios (<i>TEN-E Regulation</i>)	Development of Digital Twin & Smart Grid Indicators (<i>Action Plan Digitalising the Energy System</i>)	Support of the delivery of seven of the 14 Action Points in the Grid Action Plan (<i>EU Grid Action Plan</i>)
Integration of gas and hydrogen DSOs in DSO Entity (<i>Gas Market Regulation</i>)		Deliverables on Network Development Planning, inputs on innovative regulatory approaches, development of EU catalogue of output indicators for smart grids (<i>Copenhagen Forum 2024</i>)	Ad hoc requests for input and/or good practices on different topics from the EC

Legend:

- As provided by DSO Entity's mandate (*Electricity Market Regulation (2019/943/EU) /** Electricity Market Directive (2019/944/EU)/Implementing Regulation)
- As provided by Implementing Regulations and other legislative acts under the scope of DSO Entity's mandate
- As assigned by the European Commission in other non-legislative acts under the scope of DSO Entity's mandate

Table: Origins of some of DSO Entity's main mandated tasks

Establishment of a sector-integrated DSO Entity as strategic task for 2025:

One of the recent legislative acts goes beyond simply adding new tasks to DSO Entity's portfolio but aims to adapt its structure and general features. In this respect the Regulation (EU)2024/178 on the internal markets for renewable and natural gases and for hydrogen (Decarbonised Gas Regulation)¹³ needs to be highlighted, as it provides for the integration of gas and hydrogen DSOs into DSO Entity and thus, the creation of one single DSO Entity for electricity, gas and hydrogen DSOs. Subsequently, DSO Entity was assigned with the strategic task of amending its Statutes, updating its Rules of Procedures and financing rules, as well as publishing a Code of Conduct and a list of registered members. *The "draft updated rules of procedure of EU DSO entity shall ensure fair and balanced representation of all participating distribution system operators, including those owning or operating natural gas systems, and of hydrogen distribution network operators"* within DSO Entity (Art. 40 (3) of the Decarbonised Gas Regulation (2024/178/EU). This assignment will not only entail changes in DSO Entity's structure and governance, but also require additional financial and human resources to prepare and facilitate a successful integration.

Summarising, DSO Entity's mandate is geared towards supporting the EU's objectives with respect to the creation of a cyber-resilient, digitalised, renewable, decentralised and decarbonised energy system. This goes hand in hand with DSO Entity's mandate to participate in the development of technical rules such as network codes and guidelines, intensify the cooperation with TSOs and among DSOs to share good practices on all aspects regarding the distribution networks.

¹³ Regulation (EU) 2024/1789 of the European Parliament and of the Council of 13 June 2024 on the internal markets for renewable gas, natural gas and hydrogen. Available online: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32024R1789&qid=1723213149206>

2.2. Structure, Governance and Expert Bodies

The **governance of DSO Entity** relies on an engaged Board of Directors (BoD)¹⁴ elected by the General Assembly and involved in regular activities in close cooperation with the EGs and TFs.

- **The Executive Committee (ExCo)**, composed of the President and the three Vice-Presidents of the BoD, provides support to the Secretariat and the BoD, when appropriate.
- **The Strategic Advisory Group (SAG)**, which guarantees cooperation with DSO associations and country representatives not represented within the BoD, is a forum for consultation and can give advice on relevant decisions and projects.
- **The Country Expert Group (CEG)**, composed of one DSO representative per Member State, is the contact body for the representatives of DSO members in all EU countries and can be consulted by the BoD or the EGs and TFs for an opinion on relevant projects or decisions.
- At the heart of DSO Entity's work are the **four EGs and four TFs** that bring together some 200 experts.

All governance bodies contribute to ensuring a **balanced representation of the whole membership**.

In addition, **four Board Committees** advise and support DSO Entity on specific tasks: the selection of experts through the Expert Selection Board Committee (BESC), DSO Entity's relations and cooperation with ENTSO-E through the TSO-DSO Board Committee (T&D BC), communication- and Knowledge-Sharing-related activities through the Communication Board Committee (CBC), and eventually governance and relevant topics through the ExCo (see above).

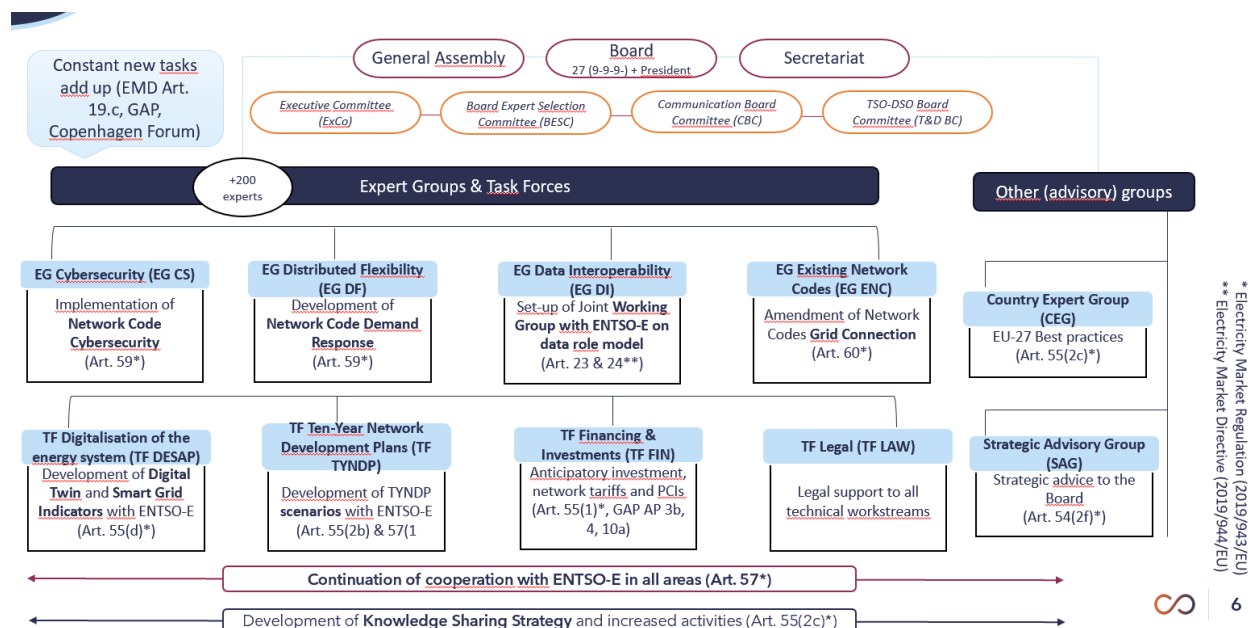


Figure: DSO Entity's governance

The work of DSO Entity's members and its governance bodies are **supported daily by the Secretariat**. In January 2024, it numbered 20 permanent employees reaching the staff objective set for 2023, which is a

¹⁴ DSO Entity's Board of Directors is composed of 27 Board members and one President.

significant increase from 10 FTEs at the beginning of 2023. With the growing team, DSO Entity's Secretariat has become more structured, with dedicated departments for monitoring EU regulatory affairs, supporting and coordinating EGs/TFs with technical and legal expertise, guaranteeing efficient member management, and facilitating professional communication.

At DSO Entity's heart lies the work of the Expert Groups:

The EGs and TFs provide the fundamental pillars of DSO Entity's work. They are responsible for the technical work involved in developing network codes and guidelines, as well as for developing technical papers on best practices and cross-sectoral matters. They work upon requests from the BoD, as well as on their own initiatives, and they can also provide advisory opinions. EGs are created and dissolved following a justified proposal of the BoD to the General Assembly, on both a permanent and temporary basis.

Their composition reflects the **technical knowledge as well as the size and geographical diversity** across the DSO members and respects their relevant expertise. The BESC is the guardian of capability and of the principle of diversity when selecting experts for EGs and TFs, while also ensuring there is a balanced representation of DSOs, regardless of their size, country, and other relevant criteria.

The EGs' core work and main tasks derive from the mandate given to DSO Entity in Article 55-56 in the Electricity Market Regulation (2019/943/EU) and other legislative and non-legislative acts. The cooperation with ENTSO-E on drafting, implementing, and monitoring the network codes and guidelines relevant to the operation and planning of distribution grids takes centre stage. However, the establishment of technical network codes is not an isolated activity, but closely connected to broader European strategies and perspectives. It encompasses the digitalisation of the European economy, the creation of a common data market, the European Green Deal, and the climate neutrality objective. As a result, other important activities include the identification of best practices in areas such as network planning, the integration of Renewable Energy Sources (RES), facilitating demand side flexibility or contributing to the digitalisation of DSOs.

In 2024 two new Task Forces were established to support the growing mandate of DSO Entity



TASK FORCE INVESTMENT, FUNDING AND FINANCE (TF FIN)

The establishment of a new Task Force for Investment, Funding and Finance (TF FIN) in Q1 2024 was a consequence of the publication of the Grid Action Plan (GAP) which assigned new tasks to DSO Entity. The GAP stressed the need to tackle the investment gap and highlighted the following challenges: developing regulatory incentives for forward-looking grid build-out, incentivizing better usage of/investment in the grids (CAPEX-OPEX), improving access to finance and need to raise awareness on EU funding opportunities. The GAP explicitly assigned the delivery or the support of the delivery of certain tasks to DSO Entity. Given the lack of specific and dedicated expertise in any of the existing EGs/TFs for the area of funding and remuneration, the establishment of a new TF was deemed necessary by the BoD and approved in February 2024. The newly established TF focuses on the delivery of funding-related assignments in the GAP and beyond, and is structured in two sub-groups:

- ▶ The Regulated Revenue Subgroup focuses on the interaction between the regulatory framework, innovation and investment
- ▶ The Finance Subgroup focuses on potential barriers for the financing of the investment required by the DSOs and the options available or not to mitigate them.



TASK FORCE LEGAL (TF LEGAL)

Together with the adoption of the Clean Energy Package and the establishment of DSO Entity, the role of developing proposals for network codes, guidelines and other relevant EU level legislation has become a central part of the representation of DSOs on EU level. Meeting these regulatory responsibilities requires not only the engagement of the DSO Entity's Secretariat but also the input of legal experts from Member States to address national nuances and effectively position DSOs within evolving network codes and guidelines.

The creation of a TF Legal addresses the following objectives:

- ▶ **Providing legal support to EG/TF activities:** Effective participation in network code and guideline development requires strong legal expertise to support DSOs' interests and priorities. TF Legal offers strategic legal analysis, examines proposed regulations, and facilitates DSO Entity's engagement with its counterparts.
- ▶ **Establishing a centralised legal expertise pool:** A dedicated TF Legal centralises DSOs' legal expertise, supporting balanced collaboration with ENTSO-E in our joint tasks and promoting best practices across Member States. This pooled expertise enhances operational efficiency, consistency in legal decisions, and fosters a culture of continuous learning and improvement within the organisation.
- ▶ **Identifying areas important for DSOs in the network code planning and implementation:** With rapid advancements in the electricity market, TF Legal plays a crucial role in tracking emerging legal trends, regulations, and precedents. This proactive approach ensures DSOs Entity's EG/TF receive timely legal guidance to address challenges and capitalise on new opportunities within the evolving regulatory landscape.

PROFILES of the Expert Groups and Task Forces
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Name: Expert Group Cybersecurity (EG CS)

Creation date: March 2022

Number of members: 29

Number of countries: 19

Scope and objective of activity:

- Cooperating with ENTSO-E on the implementation of the Network Code ('NC') for Cybersecurity (NCCS).
- Knowledge sharing
- Preparing communication materials about the Network Code

Name: Expert Group Distributed Flexibility (EG DF)

Creation date: March 2022

Number of members: 29

Number of countries: 18

Scope and objective of activity:

- The EG DF aims to advise the Board in the field of distributed flexibility and steering the Entity's activities related to distributed flexibility. The core activities of EG DF cover:
 - Cooperating with ENTSO-E on the preparation and implementation of the mandated tasks of DSO Entity in subjects related to distributed flexibility, i.e. the Network Code on Demand Response and the Methodology for analysis of the flexibility needs by the SOs at national level based on EMDR,
 - Developing technical analysis and reports to help unlock distributed flexibility and
 - Carrying out internal and external communication in different formats on relevant matters regarding flexibility.

Name: Expert Group Data interoperability (EG DI)

Creation date: March 2022

Number of members: 30

Number of countries: 20(?)

Scope and objective of activity:

- **The main task of the EG DI is to advise and support the European Commission in the development of policies and regulations aimed at facilitation the interoperability of energy data**
-

Name: EG Existing Network Codes (EG ExNC)

Creation date: March 2022 (to be verified)

Number of members: 23

Number of countries: 15

Scope and objective of activity: The primary goal of EG Existing Network Codes is the revision process of Network Code RfG 2.0 and Network Code Demand Connection.

The EG acts as focal point for the EU DSO Entity in the organization of the European Stakeholders Committees System Operations and Grid Connection, along with ACER and ENTSO-E. At least once a year the Expert Group, through the EU DSO Entity Secretariat, is involved in organizing a physical meeting of the ESCs in Brussels.

The expert group, through its experts, is also involved in other projects of technical nature that provide value for the entire DSO community. For instance, the EG is currently working on the topic of grid forming, through participation of some of its members in external projects (such as one led by ENTSO-e), and the drafting of a technical paper which aims at giving recommendations on the implementation of this technology while assessing its risks.

Name: Task Force Digitalization of the Energy System (TF DESAP)

Creation date: October 2022

Number of members: 28

Number of countries: 17

Scope and objective of activity:

- Develop relevant and tailored set of Smart Grid Indicators in the form of an EU Catalogue (input and output indicators)
 - Develop a concept for Digital Twins of the European Electricity Grid of adequate granularity
 - Support system operators in digitalizing and streamlining procedures for grid connection requests
 - Promote the uptake of smart grid, network efficiency, and innovative technologies for system operators
-

Name: Task Force Distribution System Development (TF DSD), previously TF TYNDP

Creation date: TF TYNDP December 2023, renamed to TF DSD in January 2025

Number of members: 23

Number of countries: 16

Scope and objective of activity: The Task Force Distribution System Development (TF DSD) aims to strengthen the role of DSOs in grid planning and development across Europe. Its primary focus is to support DSOs in creating reliable, forward-looking Distribution Network Development Plans (DNDPs) that integrate renewable energy sources, flexible demand, and innovative grid technologies. TF DSD will

coordinate closely with ENTSO-E, and relevant stakeholders to promote good practices, enhance data exchange, and address flexibility needs within the electricity market. Through these efforts, TF DSD seeks to enable DSOs to actively contribute to the EU's energy transition and achieve secure, decarbonized, and resilient energy systems. TF DSD legal mandate is based on articles 55 & 57 (EU) 2019/943, article 32 (EU) 2019/944 and COM(2023) 757 action 3.

Name: Task Force Investing, Funding and Finance (TF FIN)

Creation date: May 2024

Number of members: 30

Number of countries: 15

Scope and objective of activity: The European Commission has identified the need for a significant increase in infrastructure investment to deliver the energy transition. As a result, it has developed a number of initiatives that included the launch of the Grid Action Plan. To deliver the action on regulation, finance and funding in that plan, DSO Entity created TF FIN. Therefore, the objective of this group will be to advise the European Commission, Member States and regulators in the process of removing barriers for DSOs to have access to the funds necessary to deliver the energy transition.

Name: Legal Task Force (TF Legal)

Creation date: September 2024, first meeting October

Number of members: 18

Number of countries: 14

Scope and objective of activity:

- Advising DSO Entity's EG/TF upon requests or on its own initiative on legal issues, including supporting EG/TF regarding development and implementation of EU law.
- Advising DSO Entity's EG/TF in the evolution of the regulatory framework in relation to the existing regulatory framework, including identification of legal concerns.
- Preparing DSO Entity's legal assessments for network codes or other legislative acts where DSO Entity is participating as one of the parties representing DSOs.

Coordinating and cooperating with ENTSO-E's legal group where necessary and guaranteeing DSO Entity's legal positions are represented.

DSOs united in diversity

Enablers of the energy transition



42.5% EU's Renewable Energy target by 2030¹
23% of RES in the EU in 2022²



70% RES to be connected to DSO grid by 2030

30M Electric Vehicles expected by 2030³
8.6M EVs on the EU roads in 2024⁴

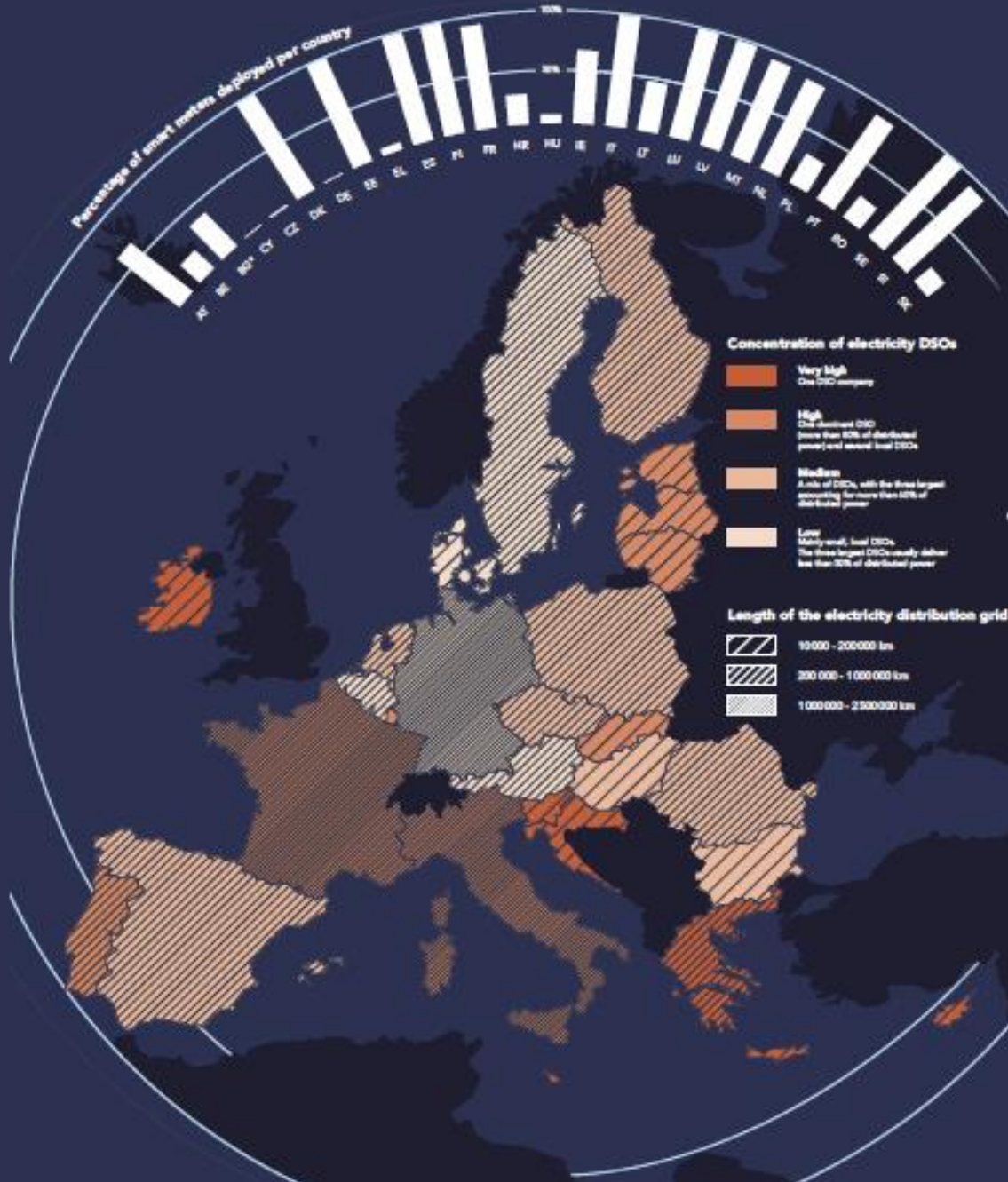
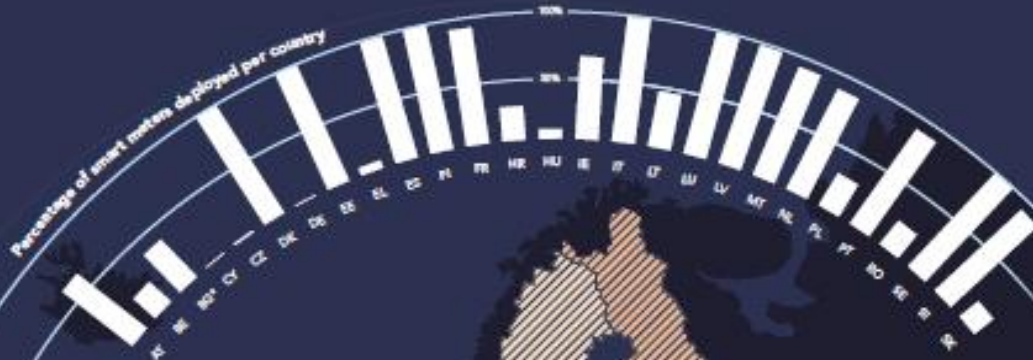
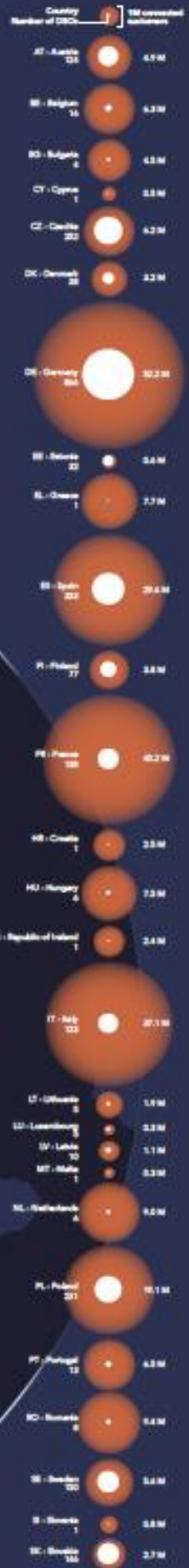


85% of the EV charging happening at home

+10M heat pumps expected by 2027⁵
19.7M heat pumps installed in 2022⁶



Most heat pumps to be connected to the DSO grid



COUNTRY EXPERT GROUP

The CEG is a unique body within DSO Entity. Part of DSO Entity's EGs, it has a **distinctiveness** resulting from its structure. The CEG constitutes a **contact body of DSO representatives from all Member States** appointed by their respective countries¹. It is a body providing advice to the BoD and contributing to the delivery of DSO Entity's tasks, especially to the Knowledge Sharing pillar by providing national good practices and expertise.

Uniqueness

- ▶ **Forum embodying the diversity of DSOs in Europe:** Gathering DSOs from all Member States to shed light on DSO diversity and providing best practices.
- ▶ **Central link between all DSOs from each country:** Connecting all DSOs from each country through their DSO national representatives to collect input from a country perspective (and not from a DSO-company perspective) and to ensure various national positions are reflected.

Role

- ▶ **Consultative role to the BoD:** Providing opinion on relevant decisions and projects to the Board and being kept informed of relevant developments (e.g., network codes, Annual Plans, Knowledge Sharing Strategies).
- ▶ **Key role in supporting DSO Entity's Knowledge Sharing Strategy:** Providing a forum to consult, identify, collect and share differences, (similar) challenges and good practices from all 27 Member States; as well as a platform for sharing information about the diversity of DSOs in Europe.

2025 Roadmap

In 2025, the CEG will continue to play a key role in supporting DSO Entity's Knowledge Sharing Strategy by:

- ▶ **Contributing to disseminating and building on the key messages from DSO Entity Technical Vision,** especially on the role of DSOs in the EU's energy system security and competitiveness.
- ▶ **Providing further insights on DSO realities in Member States** through data (building on existing materials such as the EU DSO map launched in 2024) and sharing of good practices.
- ▶ **Supporting the Grid Action Plan's delivery** (e.g. on permitting, supply chains) and any grid-relevant upcoming, horizontal initiatives in the next EU term.

1. In accordance with DSO Entity's Statutes, Article 19(6).

2.3. Core principles and way of working

DSO Entity's governance is built on **the core principle of diversity** in the three dimensions relevant for the association – gender, geography, DSO size and type – to recognise the variety of its members and guarantee the balanced representation of its entire membership in its different bodies¹⁵. To maximise the balanced participation of its members, DSO Entity strives to adopt a **platform** (Figure 6) way of working by:

- Facilitating the processes within its member community: When developing network codes and guidelines and when sharing knowledge and best practices, DSO Entity reaches out frequently to all its members, big and small, using modern Information and Communication Technology (ICT) to reduce traveling time.
- Developing content from an integrated, fact-based and customer-centric approach: DSO Entity enables electricity customers to play their important role in the energy transition.
- Being open-minded, embracing necessary change, acting, and being solution-oriented: DSO Entity chooses to be transparent, to encourage maximum participation and to limit complexity, seeking input from experts and non-experts alike.

Working at the European level, DSO Entity is both open and neutral about the feasibility and proportionality of network codes and country-specific differences. The association will pursue applicability for all members, large and small, rural and urban, regional and transnational, to encourage involvement and ensure benefits for all its members based on the principle of balanced representation.

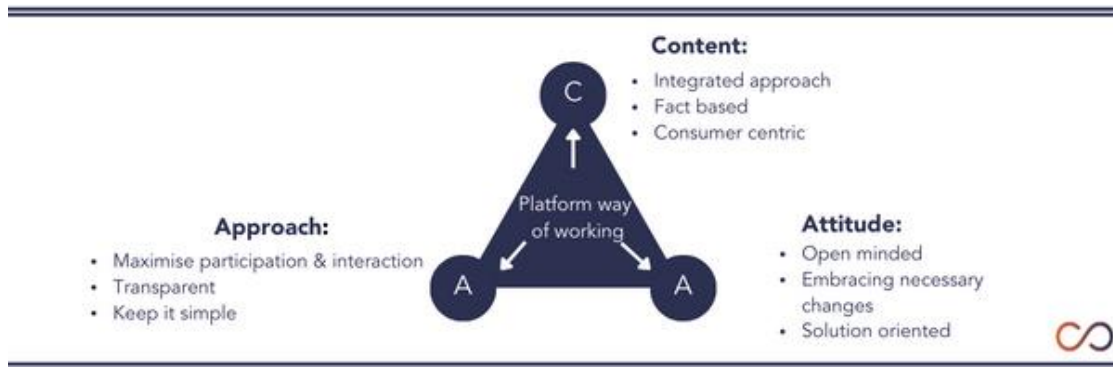


Figure 6: DSO Entity strives to work with its members through a platform way of working

¹⁵ DSO Entity's membership is distributed among three main categories: DSO with less than 100,000 connected customers, DSOs with more than 100,000 connected customers but less than 1 million, and DSO with more than 1 million connected customers.

3. Horizontal aspects of the Annual Work Programme 2025

3.1. General and strategic EU energy developments expected to affect DSO Entity's work

The currently processed and, often, very specific and technical mandated tasks of DSO Entity cannot be seen in isolation from the more general ongoing energy developments at the EU-level. As explained in Chapter 2, DSO Entity's tasks are continuously increasing through new assignments deriving from legislative and non-legislative acts of the EU institutions such as the Grid Action Plan, the Copenhagen Infrastructure Forum Conclusions or the revision of the Electricity market design in 2023 and 2024. Therefore, DSO Entity continues to actively monitor the ongoing developments in the energy area to be internally best prepared to deliver on potential new mandated tasks.

2025 will be a special year since it marks the first full year of the new legislative term (2024-29) in which the broader strategic priorities for the next five years will be defined, and several consultations will be held. Given the recent inauguration of the new European Commission on 1 December 2024, apart from some – already outlined strategic priorities - not many details are known about the concrete next actions in the energy area which will only take form and sharpen once the European executive has taken up its work.

Grids are expected to remain high on the agenda of the EU institutions in 2025:

However, during the last few months it has become apparent that grids will remain high on the agenda of all three European institutions in the next five years. This became not only visible in the publication of several influential reports such as the Letta¹⁶ or the Draghi reports¹⁷, but also in recent activities and decisions of the three core institutions.

- In the mission letters of the designated **European Commissioners**, grids were placed high on the agenda of the Energy Commissioner who is assigned to review the existing legal framework for European Grids to support the upgrade and expansion of the grid, and to speed up permitting procedures, and electrification, as well as to propose a Clean Energy Investment Strategy with a focus on clean energy infrastructure including grids¹⁸. But grids were not only mentioned specifically in the portfolio of the Energy Commissioner but also in cross-sectoral priorities, such as the flagship project of the new EC, the Clean Industrial Deal.

¹⁶ Enrico Letta (2024) *Much more than a market* report, commissioned by the European Council. Available online: <https://www.consilium.europa.eu/media/ny3j24sm/much-more-than-a-market-report-by-enrico-letta.pdf>

¹⁷ Mario Draghi (2024). Op cite.

¹⁸ Ursula von der Leyen, President of the European Commission (2024) Mission letter to Dan Jørgensen, Commissioner-designate for Energy and Housing. Available online: https://commission.europa.eu/document/download/1c203799-0137-482e-bd18-4f6813535986_en?filename=Mission%20letter%20-%20JORGENSEN.pdf

- The **European Parliament** decided to launch an own-initiative report on grids and dedicated several written and oral questions in their hearings with the designated Energy Commissioner to grids, including both TSOs and DSOs.¹⁹
- The Hungarian Presidency of the **Council** kept the focus on grids with another high-level Grids conference held on 14 October in Budapest that shed light on the needs of DSOs and TSOs beyond the delivery of the GAP.

This shows that the grid momentum is here to stay and that several new initiatives will specifically target grids in 2025 and beyond, which might lead to additional tasks for DSO Entity.

Shift in focus: from the Green Deal to the Clean Industrial Deal

While grids continue to stay high on the EU’s agenda, a significant shift in the predominant paradigm became visible during 2024 and is expected to continue in 2025. A shift in focus of the three European energy objectives from the sustainability dimension towards the competitiveness and security dimensions is visible not only in recent publications, but also in the plans of the EU executive with the new flagship project of a Clean Industrial Deal that will take over from the Green Deal (2019-24).



Figure : Shift in focus of the EU’s three energy objectives:

This development does, however, not mean that the Green Deal has become obsolete. The 2030 targets are still valid, and the EC is expected to propose the revision of the Climate Law to include a 90% CO₂-reduction target for 2040, i.e. sticking to previously announced ambitions.

While the green transition is not called into question, the greater focus of the EU institutions on competitiveness and (energy) security must be seen in relation to the ongoing developments: an increasingly fragile geopolitical situation with an ongoing war raging in Europe, struggling European industries and companies that are losing market shares in key-tech and green technologies. This shift in focus is also visible for the grids as the influential Letta report mentioned

¹⁹ European Parliament (2024) Written questions and answers to and from Commissioner-designate Dan Jørgensen (Energy and Housing). Available online: https://hearings.elections.europa.eu/documents/jorgensen/jorgensen_writtenquestionsandanswers_en.pdf

“the crucial role of energy infrastructures in the Single Market”²⁰, highlighting the grids’ relevance for the EU’s resilience and industrial competitiveness. The European Roundtable for Industry as well spoke of **grids as « infrastructure imperative »** and stressed the need for massive investments²¹. Thus, the relevance of well-developed grids as prerequisite, not only for a successful energy transition, but also for a thriving European economy and a (cyber-)secure system are widely acknowledged.

Expected activities for energy and grids in 2025:

This greater focus on (energy) prices and costs, as well as security and resilience aspects, are visible in the **few concrete announcements** that were already made regarding the European Commission’s future publications in the next years (see illustration).

- The **Clean Industrial Deal** as the new flagship project of the EC should find tangible solutions for making EU energy policies more sustainable while keeping the industry competitive and the infrastructure secure. This shall be done by developing an Industrial Decarbonisation Acceleration Act with an Action Plan for Affordable Prices, a new Competition Policy and a New Competitiveness Fund.
- Apart from this flagship project, **other new initiatives** are expected to be relevant for DSOs and DSO Entity such as: the Electrification Action Plan, a Strategic Roadmap for the Digitalisation and AI in the Energy Sector, a Clean Energy Investment Strategy as well as a Citizens Energy Package to increase citizens’ participation.
- In addition to these new initiatives, the Energy Commissioner should also **review the existing legal framework for grids** and see if it is fit for purpose. This could encompass as good as all energy and climate-related legislation ranging from the TEN-E Regulation (2022/869/EU)²² to the Renewable Energy Directive (2023/2412/EU)²³ or Energy Efficiency Directive (2023/1791/EU)²⁴, and beyond. In this area **the review of the security framework** with attention to emerging risks, such as climate change impacts, cyber-attacks and critical infrastructure is specifically highlighted.
- Further, the EC will closely monitor the **national implementation** of the mammoth projects of the previous EC in the form of the Fit for 55 package, REPowerEU and other

²⁰ Enrico Letta (2024). Op cite.

²¹ European Roundtable for Industry (2024) *Strengthening Europe’s Energy Infrastructure* Report, ERT. Available online: https://ert.eu/wp-content/uploads/2024/04/ERT-Strengthening-Europes-energy-infrastructure_March-2024.pdf

²² Regulation (EU) 2022/869 of 30 May 2022 on guidelines for trans-European energy infrastructure, amending Regulations (EC) No 715/2009, (EU) 2019/942 and (EU) 2019/943 and Directives 2009/73/EC and (EU) 2019/944, and repealing Regulation (EU) No 347/2013.

²³ Directive (EU) 2023/2413 amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources , and repealing Council Directive (EU) 2015/652.

²⁴ Directive (EU) 2023/1791 of 13 September 2023 on energy efficiency and amending Regulation (EU) 2023/955 (recast).

related files. All the set targets and requirements will need to be transferred into concrete measures on the ground and implemented at the local level. Thus, attention will turn to the implementation of the measures and how to ensure all the right conditions are set to guarantee that Europe can deliver to its targets. This is where DSOs play a crucial role as technical enablers of most of the new targets.

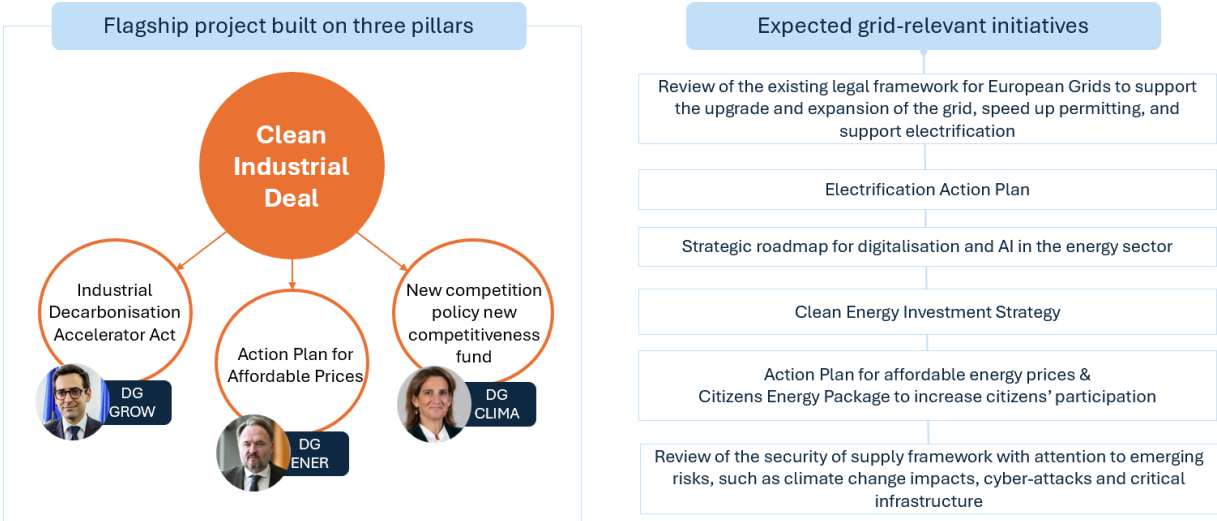


Figure: Upcoming initiatives in the new EU term (2024-29)

Summary

This overview of the EC intended initiatives shows the magnitude of activities that will come towards DSOs and DSO Entity. While the details remain vague it is apparent that the activities and focus of DSO Entity’s EG/TFs tune well into these new initiatives and will continue to support the European institutions on request regarding the development and/or execution of new grid-related activities. Throughout 2025 DSO Entity will continue to closely monitor the unfolding of these more general European energy developments to be ready to provide advice upon request and support the European institutions in their attempt to deliver a clean energy transition at competitive prices while keeping the lights on.

3.2. Overview of horizontal work priorities 2025

Continuation of the core work in three pillars:

In 2025, DSO Entity will continue its work along its three core pillars: 1) the development of technical rules such as network codes, 2) the close cooperation with ENTSO-E, 3) the sharing of good practices via Knowledge Sharing.

The first and largest pillar is primarily taken care of in the EGs and TFs that work closely together with ENTSO-E (second pillar) in most of the workstreams. The third pillar of Knowledge Sharing also builds largely on the contributions of EGs and TFs, but has an additional horizontal, strategic dimension. This dimension is especially fed by the CEG and the CBC, which are actively involved in the development and execution of the strategic Knowledge Sharing Strategy by sharing data, good practices and working on horizontal workstreams not covered by any EG or TF, such as permitting or supply chains, which are also important parts of the GAP.

Three special projects from 2024 will continue beyond 2025:

Apart from the three pillars, DSO Entity will continue to work on three special projects that started already in 2024.

- 1) The completion of the remaining tasks of the **Grid Action Plan** and follow-up activities
- 2) The **integration of gas and hydrogen DSOs** into DSO Entity
- 3) The dissemination of and follow-up works on the **Technical Vision**

This part provides more in-dept information on these three workstreams below.

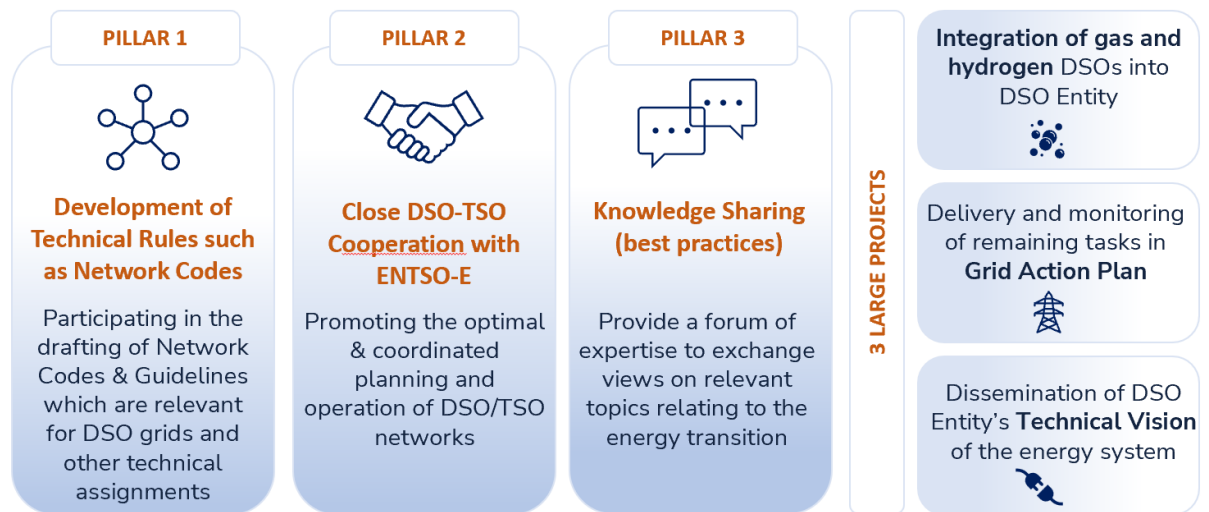


Figure: Core activities in 2025 – three pillars and three projects

THE THREE CROSS-CUTTING HORIZONTAL PROJECTS IN 2025

Apart from the activities described in the overviews of the EG and TFs, and Knowledge Sharing, the Secretariat will work on three larger cross-cutting projects:



1. **The preparation and finalisation of the integration of gas and hydrogen DSOs into DSO Entity:** An important, but also time- and resources-intensive, task is the revision of the Statutes, Rules of Procedures and Financing Rules to facilitate the integration of gas DSOs into DSO Entity as foreseen in the Renewable and Natural Gases and Hydrogen Regulation ((EU) 2024/1789). This process was started in early 2024 and will be concluded by the end of 2025. It requires close coordination with existing DSO Entity members, but also with the four European gas associations to ensure a mutually acceptable and welcomed outcome. (for more information, please see the Info Box D).

 **When**

This significant project of creating the foundations of a sector-integrated DSO Entity and putting them into practice will be carried out throughout the whole year 2025.




2. **The delivery of the remaining assigned Action Points in the Grid Action Plan and the monitoring of relevant workstreams:** The Grid Action Plan (COM/2023/757) assigns DSO Entity to support the delivery of at least seven out of the 14 action points - often in cooperation with ENTSO-E and/or the EC and ACER. While several action points could be concluded in 2024, some tasks are still to be finalized such as Action Point 6 on the development of a common definition on grid hosting capacity with ENTSO-E and the development of guidance and recommendations to digitalise and streamline procedures for grid connection requests. Also, some Action Points that were already delivered will be further explored in 2025, for instance AP13 on the supply chains where a roadmap was agreed which will be carried out throughout 2025. Similar activities on the Pact for Engagement, permitting, funding and financing or distribution network development planning are all still actively developed and explored by the respective EGs/TFs or the CEG.

 **When**

The Grid Action Plan's (COM/2023/757) timeframe is set at 18 months, so several deliverables are still to be accomplished by mid-2025.



3. **The dissemination of the Technical Vision as part of the Knowledge Sharing Strategy:** In 2025, the Knowledge Sharing Strategy's strategic focus will be the dissemination of the results of the Technical Vision and potential extensions. While a more general vision had already been adopted in 2021, underlining DSO Entity's active support to the transition of the energy system into a decarbonised and digitalised one, the Technical Vision which was developed in 2024 describes the characteristics of this future energy system from a DSO perspective. Together with DSO Entity's members, the Secretariat brought together all its expertise in relevant areas, such as future system operation, flexibility and digitalisation, data management and interoperability, network planning and investments as well as resilience, cyber-aspects and emergency management to develop the vision that should now be widely distributed.

 **When**

The dissemination process of the key-messages of the technical vision was launched during the Annual Event of DSO Entity on 5 December 2024 and will further distributed and shared to ensure that DSO Entity's technical vision is widely understood and its recommendations can be included in the elaborations of European stakeholders

THE GRID ACTION PLAN AT A GLANCE¹



- ▶ Support for grids during implementation
- ▶ Grids as EU-success story but now challenge for the delivery of energy targets
- ▶ Especially, challenges of high investment needs to DSOs are highlighted

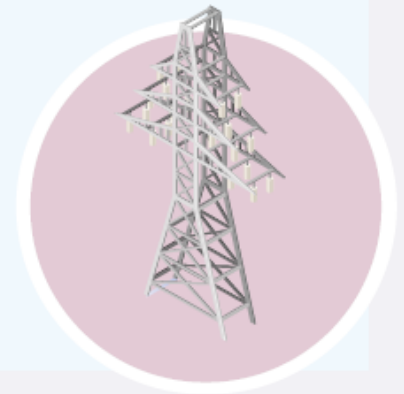


- ▶ Non-legislative initiative of the European Commission with measures meant to support the grid during the implementation phase of existing energy legislation
- ▶ The Action Plan describes 7 challenges and 14 Action Points that should support implementation in the next 18 months



- ▶ DSOs and the decentralised level are in the focus like never before
- ▶ Right challenges are identified and meaningful measures proposed often specific measures are mentioned for DSOs (e.g. permitting, funding, remuneration schemes)
- ▶ DSO Entity appears as a key-actor and is responsible for the delivery of 7 out of 14 Action Points (often together with ENTSO-E)

"The EU is bringing grids to the center of its agenda"



Challenge	Action Point	DSO relevant tasks assigned to DSO Entity or other bodies	Timeframe	Responsible EG/TF ²
(Challenge 1) Accelerating the implementation of PCIs and developing new projects	[1]	The main focus is on TSOs but it is mentioned that a new approach to identify and support local grid projects appears necessary to prevent gaps in the future [connection with action 3 and 10]	As of 2024	
(Challenge 2) Improving long-term grid planning for a higher share of RES and increased electrification: Need for long-term visibility of network needs, especially at DSO-level, is highlighted, as well as the importance of better support for PCI applications for smart grids projects.	3	DSO Entity to support DSO grid planning by mapping the existence and characteristics of DSO development plans; and by improving best practices and recommendations. DSO Entity, with the EC, to reinforce their support to the design and submission of PCI applications for smart grid projects.	Mid-2024	TF TYNDP TF FIN
(Challenge 3) Introducing <u>regulatory incentives</u> for forward-looking grid build-out: Need for a supportive regulatory framework bringing investment certainty and recognising the importance of anticipatory investments & accounting for both CAPEX and OPEX in network tariffs, is stressed	4	DSO Entity, with ACER and ENTSO-E, to support the EC in proposing guidance for conditions to approve anticipatory investments.	Q1 2025	TF FIN

1. Op cite

2. For more details on the expected delivery of still ongoing Action Points, please visit the detailed description of the Work Programs of the EG/TFs in chapter 4.

<p>(Challenge 4) Incentivising a better usage of the grids: More transparency on grid hosting capacities (capacity maps, frameworks for non-firm connection agreements etc.).</p> <p>Insufficient smart grids incentives (e.g. insufficient OPEX compensation; rising digitalisation costs, data processing, flexibility procurement)</p>	6	<p>DSO Entity, with ENTSO-E, to agree on harmonised definitions for available grid hosting capacity for system operators and to set a pan-EU overview</p>	Mid-2025	EG DF
		<p>DSO Entity, with ENTSO-E, to issue guidance and recommendations to digitalise and streamline procedures for grid connection requests.</p> <p>[National regulatory authorities (NRA)'s work on non-firm connection agreements]</p>	Mid-2025	TF DESAP
	7	<p>DSO Entity, with ENTSO-E, to promote smart grid uptake, network efficiency & innovative technologies, and to update the Technopedia</p>	End 2024	TF DESAP
<p>(Challenge 5) Improving access to finance: Need to raise awareness on EU funding opportunities, especially for DSOs, is in the focus. The unprecedented increase in the volume of capital expenditure of DSOs affects key financial performance indicators such as credit ratings. Need for tailor-made financing products to support grids</p>	[8]	<p>ACER, in its tariff report, to recommend best practices in relation to the promotion of smart grids and network efficiency technologies through tariff design, focusing on the consideration of OPEX in addition to CAPEX and benefit sharing</p>	Q1 2025	TF FIN
	[9]	<p>EC to identify tailored financing models and strengthen dialogue to address obstacles to private financing (Investors Dialogue)</p>	As of 2024	TF FIN
<p>(Challenge 6) Accelerating deployment through faster permitting and public engagement: Focus is on supporting the acceleration of permitting over long distances and crossing several jurisdictions, & constraints in staffing and digitalisation of the competent authorities</p>	10	<p>DSO Entity to collaborate with the EC to raise awareness on the available options to increase funding applications for DSOs.</p> <p>Kick-start with dedicated high-level meeting with Member States on funding for DSOs. DSO Entity should support raising awareness</p>	Q1 2024	TF FIN
	[11]	<p>EC to support permitting acceleration, among others EC will support application of permitting rules in RED/emergency regulation (overriding public interest) as regards DSOs</p>	As of 2024	CEG CBC
<p>(Challenge 7) Strengthening grid supply chains: Lead times for procuring specific grid components are increasing due to a growth in global demand but also divergency in product specificities. Further concerns</p>	12	<p>DSO Entity with ACER, ENTSO-E and RGI to sign the Pact for Engagement to reinforce stakeholder engagement</p>	As of end of 2023	CEG CBC
	13	<p>DSO Entity, with ENTSO-E, to collaborate with technology providers to develop standard technology specifications.</p>	Q4 2024	CEG CBC Secretariat
		<p>DSO Entity, with ENTSO-E, to develop mechanisms for providing increased visibility to manufacturers into their upcoming procurement plans for equipment and systems on all voltage levels</p>	Q4 2024	
[14]	<p>EC to promote common technical requirements for generation and demand connection (DC) in revision of NC RfG and DC to ensure manufactures can benefit from single market access</p>	By 2025	EG ExNC	

Orange marks a task to be delivered by DSO Entity

Green marks a task that is delivered

Blue marks a task that is ongoing

Table 4: Short overview of the Grid Action Plan's contents and DSO-related tasks



INFO BOX B

INTEGRATION OF GAS AND HYDROGEN DSOS WITHIN DSO ENTITY

On 4 August, the Decarbonised Gas and Hydrogen Market Regulation (EU) 2024/1789¹ entered into force and will be directly applicable in the Member States six months after its publication. The Regulation is of high relevance for DSO Entity as it provides for the integration of gas and hydrogen DSOs within DSO Entity (see Art. 39-41). This means that DSO Entity will be the sole DSO organisation developing Network Codes together with its respective TSO counterparts ENTSO-E (electricity), ENTSO-G (gas) and the newly created ENNOH (Hydrogen). The enlarged membership and tasks will strengthen the visibility of DSOs on European level to the benefit of all DSOs. DSO Entity's existing structure and achievements give confidence to accomplish the challenging integration task in close consultation with gas associations, whilst in parallel securing the current priorities of DSO Entity.

Project management and next steps:

The integration of gas and hydrogen DSOs necessitates a substantial overhaul of DSO Entity's current structure and governance. The Regulation foresees that, within one year after its entry into force, the revised Statutes, Rules of Procedures and Financing Rules, must be submitted to the EC. DSO Entity strives for an even faster integration and has already established a project structure to work on this in Q2 2024. The project structure consists of various Task Forces and a Sounding Committee at the Board level. The Task Forces composed by members of DSO Entity work jointly with experts from four associations representing gas-DSOs (Eurogas, GD4S, Geode and Cedec) supported by a Program Coordinator to prepare proposals and options. The Sounding Committee will be a joint platform for reflections and advice. Final decision-making will run through the usual procedures at the level of the Board and General Assembly of DSO Entity after having received ACER and European Commission's opinions on the draft statutes. The aim is to launch the integration in Q4/2025.

Timeline

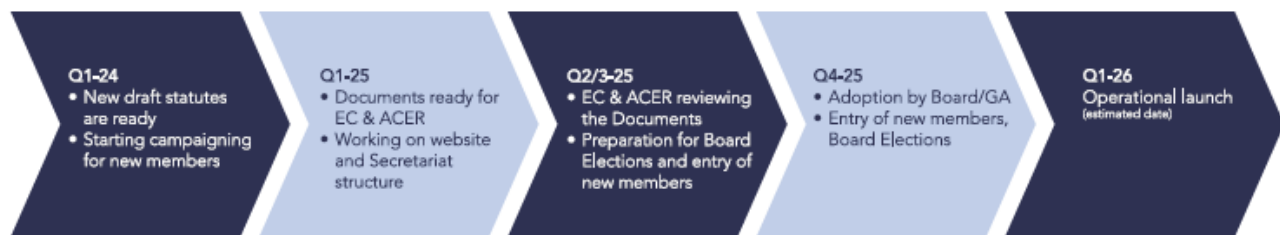


Figure 9: Internal DSO Entity timeline for the integration of gas/H2 DSOs

1. Regulation (EU) 2024/1789 of the European Parliament and of the Council of 13 June 2024 on the internal markets for renewable gas, natural gas and hydrogen, amending Regulations (EU) No 1227/2011, (EU) 2017/1938, (EU) 2019/942 and (EU) 2022/869 and Decision (EU) 2017/684 and repealing Regulation (EC) No 715/2009 (recast). Available online: <https://eur-lex.europa.eu/eli/reg/2024/1789/oj>

3.3. Knowledge Sharing and Communication Strategy 2025

As mandated by the Electricity Market Regulation (2019/943/EU), DSO Entity works with its members and partners to **identify, collect and disseminate good practices** related to grid topics and its core areas of expertise. In light of the considerable diversity of the more than 2,500 DSOs operating in Europe, the sharing of knowledge and good practices plays an essential role in achieving Europe's energy transition. Knowledge Sharing, as DSO Entity's third pillar, is especially relevant to provide insights on DSOs diversity as well as their role and relevance in the energy transition.

In 2025, DSO Entity will implement its third Knowledge Sharing Strategy in a time of strong focus on the implementation of the Green Deal and upcoming new initiatives as part of the future Clean Industrial Deal. DSO Entity's mission, as an institutional body, will be essential in providing solid expertise and knowledge on distribution grids, their challenges and needs, as well as in sharing good practices from DSOs on the progress achieved on the ground to reach the EU's energy targets.

Furthermore, as in 2024, Knowledge Sharing will continue to be key when completing the tasks explicitly assigned to DSO Entity in the Grid Action Plan (COM/2023/757) by the next Copenhagen Infrastructure Forum in 2025. DSO Entity is a key-actor in the delivery of several action points regarding the sharing of practices and information among DSOs, for instance such as for network development planning (action point 3) or funding opportunities for smart grids (action points 3, 10).

Building on DSO Entity's Technical Vision, the **Knowledge Sharing Strategy 2025 will focus on three main tracks** (see Figure X):

- The dissemination of the **Technical Vision's key messages** and the further elaboration of some of its core topics (refer to Info Box X).
- The pursuit and expansion of the work done to **raise awareness on DSOs relevance for the EU's green transition but also for the EU's security and competitiveness.**
- The intensification of the efforts to develop DSO Entity into a **Platform of Expertise on and for all DSOs.**



INFO BOX C

DSO ENTITY'S TECHNICAL VISION

DSO Entity's Technical Vision was published in December 2024 and was the flagship project of the Knowledge Sharing Strategy 2024. In line with the EU's climate and energy objectives, DSO Entity is committed to supporting the path towards reaching Europe's carbon neutrality by 2050 and has developed its Technical Vision to provide the joint and common vision of European DSOs for the future of the EU's energy system. DSO Entity will support DSOs to actively facilitate the transition towards a CO₂-neutral energy system in the next decades, ensuring security of supply with future-proof network codes and with enhanced collaboration between TSOs and DSOs.

DSO Entity Technical Vision, through a customer-centric approach, describes how a fully decarbonised energy system will differ from the current system, outlines which key characteristics will have to be adapted from a DSO perspective to be able to deliver the EU's net-zero targets, and provide recommendations to ensure the right conditions are set

Further elements of the Knowledge Sharing Strategy 2025:

DSOs relevance for a clean, competitive and secure Europe

2025 will mark the first year of operation of the new European Commission with key initiatives to be proposed under the new Clean Industrial Deal flagship. The Knowledge Sharing Strategy 2025 will aim to further show the role and relevance of DSOs for the EU's energy system security as well as economic competitiveness, as the EU's agenda is re-focusing on the security and competitiveness pillars, after a focus on sustainability between 2019 and 2024 with the EU Green Deal. In this context, and building on its Technical Vision, DSO Entity will work to share expertise, key figures and good practices on DSOs to maintain the momentum of the EU Grid Action Plan and ensure that the grids at the distribution level are recognized and in focus in future EU initiatives.

DSO Entity development into a DSO Platform for Expertise

With a member base of over 25 million connections from DSOs in all 27 Member States, coverage in EU is nearing 100%. DSO Entity strives to develop into a dedicated platform for DSOs of all sizes and shapes to share and exchange good practices and expertise among DSOs, but also about DSOs with external stakeholders and partners. In 2025, the efforts made to disseminate the work achieved by DSO Entity's experts will be enhanced by further communicating on the technical workstreams and intensifying the sharing of expertise and good practices. Through different channels and tools of communication (including factsheets, webinars, continued work on the EU DSO map, the implementation of the existing website, the launch of a pilot project to record in-house videos, etc.), DSO Entity will also progressively further develop into a DSO Data Hub, providing key figures on DSOs and into an EU Academy for DSOs providing knowledge and expertise on the Brussels ecosystem and decision-making and grid-related European legislation.

Knowledge Sharing, an opportunity for DSO Entity's members:

- Learning about technical topics and increasing understanding of EU-level developments.
- Exchanging among DSOs concrete practices implemented within companies and countries to find collective solutions addressing the transition's challenges.
- Collecting and comparing DSO and country facts and figures to sketch what is happening in the EU-27.

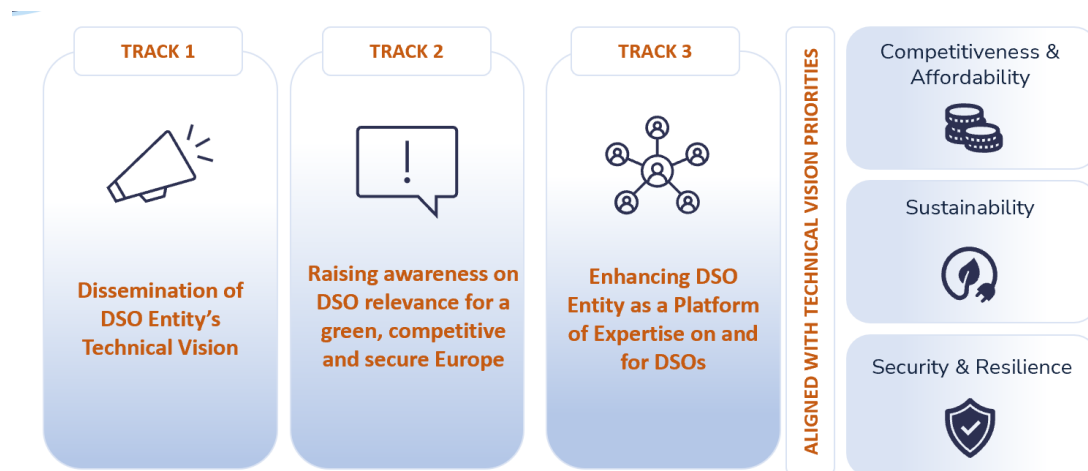


Figure X: Overview of the three tracks of the Knowledge Sharing Strategy in 2025

The Country Expert Group's role in implementing the Knowledge Sharing Strategy 2025:

The CEG will continue to play an important role in supporting the implementation of the Knowledge Sharing Strategy in 2025, specifically regarding the continuation of raising awareness on DSOs' role and diversity by sharing good practices. Building on the success of the EU DSO map launched in 2024, the CEG will continue working in 2025 to collect key data on DSOs in the EU-27 to support DSO Entity's in its project of becoming a beginner DSO Data Hub. By providing key figures and further examples of national good practices, the CEG will support DSO Entity's key messages, and thus ensure that knowledge is not only shared internally, but also expanded to a greater external audience. In addition, the CEG will continue to be an important body for advice and expertise regarding other relevant activities such as raising awareness to DSOs relevance for the EU's security and competitiveness.

Communication and activities in external fora

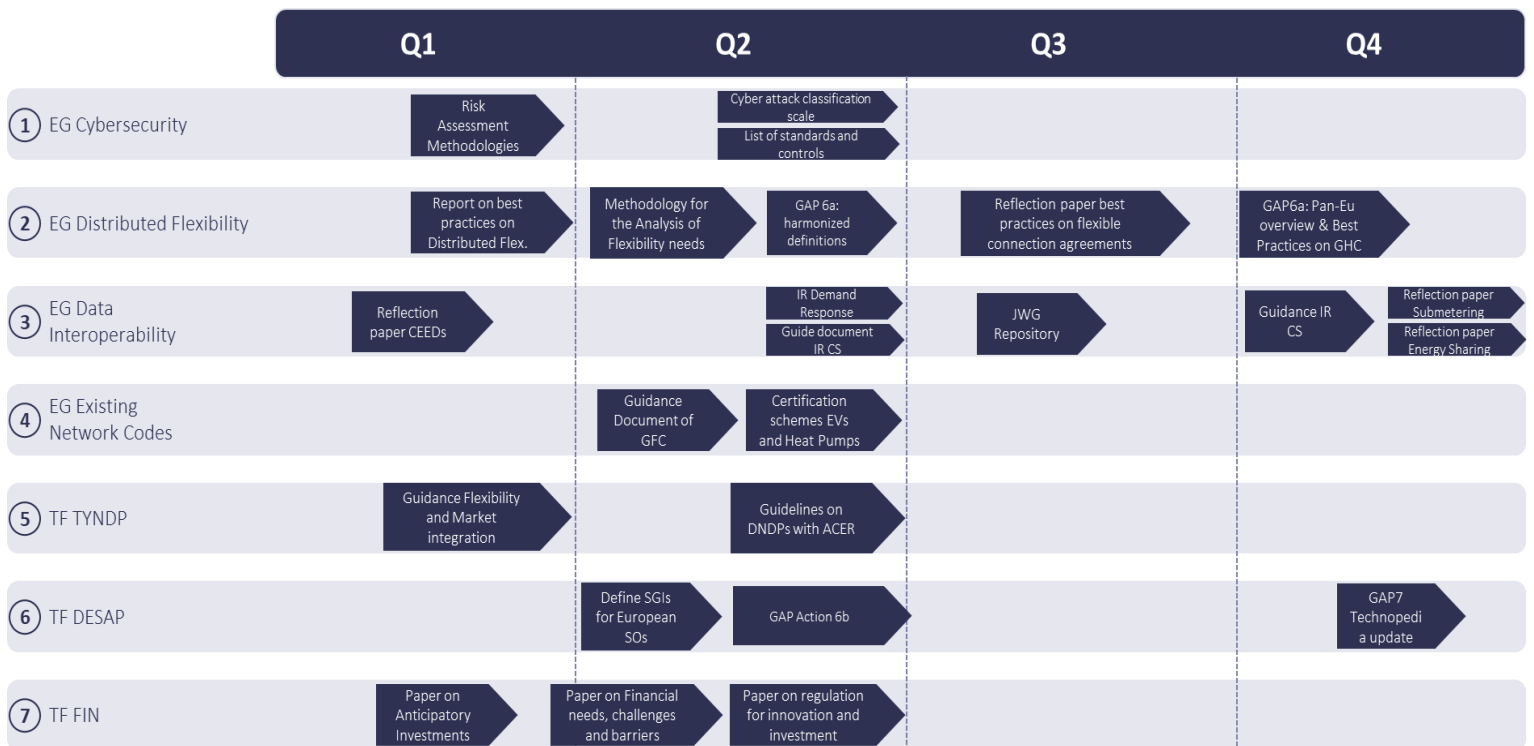
As in 2024, the Knowledge Sharing Strategy 2025's delivery will go hand in hand with the Communication Strategy 2025, which role will be to find the right format, events and platform to disseminate – between members and with external stakeholders - the deliverables.

Further, the active involvement of DSO Entity in different advisory bodies of the EC and/or other bodies will continue such as its membership in the Electricity Coordination Group, the Smart Energy Expert Group, the Investors Dialogue and the newly established Working Group of DG ENER on energy consumers. Also, DSO Entity's participation in the EC's Fora such as Copenhagen, Florence and Dublin will continue.

4. Specific Work Programmes of the Experts Groups and Task Forces 2025

High-level overview of main deliverables in all three pillars in 2025 with a focus on the work of EG/TFs:

Figure X gives a high-level summary of highlighted deliverables in 2025. All the details regarding the EGs and TFs' core workstreams and deliveries are summarised in the subsequent pages of this chapter 4.



4.1. EG – Cybersecurity

1. **Implementation of the Network Code of Cybersecurity**

Describe work area: Implementing the Network Code Cybersecurity as laid down by art. 55(1) of the electricity market regulation (2019/943/EU) through the preparation and drafting of key supporting documents and deliverables, including TCMs (Terms, Conditions, and Methodologies) that will be used within the NCCS.

- Draft the documents according to the provisions of the Network Code Cybersecurity.
- Synchronize the internal approval process in collaboration with ENTSO-E.

Describe deliverables:

- Finalization and approval of the Cybersecurity Risk Assessment Methodologies according to Article 18(1) of the NCCS.
- Completion of the Cyber-attack classification scale methodology in accordance with Article 37(8) of the NCCS.
- Development of the Provisional list of standards and controls pursuant to Article 48(6) of the NCCS.
- Start with the drafting of the feasibility study to assess the possibility and the financial costs necessary to develop a common tool enabling all entities to share information with relevant national authorities according to Article 37(9) of the NCCS.

2. **Knowledge sharing**

The Expert Group in Cybersecurity shall organize, according to provisions of the Art. 55(2) of the electricity market regulation (2019/943/EU) both internal and external knowledge-sharing initiatives to strengthen the cybersecurity capabilities of DSOs.

The Expert Group in Cybersecurity will prepare comprehensive materials, including documents, slides, and videos to communicate the NCCS implementation phase and its supporting documents. These resources aim to clarify the roles and responsibilities of DSOs, highlighting the relevance of the supporting documents. Engagement will be conducted through meetings and webinars. Internal workshops on Business Continuity Management (BCM). As of 2024, the EG will continue its path in knowledge-sharing activities through the organization of workshops related to BCM plans. In this shared space, collaborating DSOs will have the opportunity to exchange knowledge and key information on how to improve the (cyber)security within the DSO, as well as the sharing of best practices to achieve a robust security network.

Developing Supporting documents for NCCS implementation and BCM:

- Provide step-by-step guidance on how to carry out specific activities, such as Risk Assessment, helping members to implement the requirements outlined in various articles of the NCCS.
- Provide a high-level guide for BCM steps and procedures that DSOs can use and implement. Use the existing materials and use cases discussed during BCM workshops in cooperation with secretariat.
- Supply pre-filled templates containing the common information relevant to DSOs, with members needing only to complete the specific sections pertinent to their operations (e.g., Business Continuity Plan), along with tailored instructions for these areas.

- Implement an Exchange Platform for DSOs that are affected by the NCCS

Develop initial concepts and take steps toward establishing a community of cybersecurity experts for ongoing collaboration and learning.

Provide Input and expertise to the ongoing standards and regulations related to Cybersecurity and cooperation with relevant stakeholders.

The Cybersecurity Expert Group will foster relationships with relevant stakeholders to enhance information exchange, build competence, and keep DSOs informed of legislative developments and implications.

Describe deliverables:

- Preparation of the inputs for standardization as part of the agreement with CEN/CENELEC related to cybersecurity standards.
- Monitoring the implementation phase of the Cybersecurity Resilience Act and advising members on potential impacts and compliance requirements.

3. Communication material concerning NCCS:

EG CS will provide communication materials (including dedicated videos) on the final approved NCCS to:

- Members
- Other stakeholders
- National authorities

GANT CHART / TIMELINE (broad overview):

Timeline

Visual reference to the EG CS Work Programme incl. Gant chart:

	Q1			Q2			Q3			Q4			2026
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cybersecurity Risk Assessment methodologies													
Cyber-attack classification scale methodology													
Provisional list of standards and controls													
Communication on NCCS													
Input for consultation on ongoing EU legislation related to Cybersecurity													
Communication with relevant stakeholders													

4.2. EG – Distributed Flexibility

1. **Work Package 1 (Article 55(1)(b) of Regulation (EU) 2019/943):** Development & Implementation of Network Code on Demand Response (NC DR)

Describe work area: Interaction and collaboration with ENTSO-E, ACER, EC and the key stakeholders on the development and implementation of the NC DR.

Describe deliverables:

- **Deliverable 1:** Monitor the completion of the legal process for the development of the NC DR in cooperation with ENTSO-E and in dialogue with ACER and the European Commission.
- **Deliverable 2:** Preparation of an Action Plan for the NC DR to ensure timely and efficient implementation of the tasks defined for the DSO entity in the NC DR.
- **Deliverable 3:** Preparation of a Communication Plan for the NC DR to inform all parties involved in the NC DR of their obligations under the NC DR and to involve these parties in the development of the terms, conditions and methodologies.
- **Deliverable 4:** Cooperation with ENTSO-E in the Development of the proposals for the Union-Wide methodologies on the fields defined under NC DR.
- **Deliverable 5:** Supporting the European Stakeholder Committee for Demand Response in cooperation with ENTSO-E.

2. **EG DF Work Package 2 (Article 19e(6) of Regulation (EU) 2024/1747): Methodology proposal for the analysis of the flexibility needs of SOs according to the Electricity Market Design Reform (EMDR).**

Describe work area: In accordance with Article 19e of the (EU) 2019/943 which entered into force with the (EU) 2024/1724, EMDR, definition of the type and format of data, and the development of the methodology for the analysis by transmission system operators and distribution system operators of flexibility needs at national level in cooperation with ENTSO-E.

Describe deliverables:

- **Deliverable 1:** Definition of the format and type of data and development of a proposal for a methodology to analyse the flexibility needs of DSOs and TSOs at national level, in cooperation with ENTSO-E, and submission to ACER. [(EU) 2019/943 Article 19 (e) (4)]
- **Deliverable 2:** Ask me Anything Webinar on the methodology for analysis of the flexibility needs by SOs.
- **Deliverable 3:** Cooperation with ENTSO-E to coordinate transmission and distribution system operators in providing the data and analysis defined in the methodology, once approved and published by ACER. [(EU) 2019/943 Article 19 (e) (5)]

3. **EG DF Work Package 3 (EU Action Plan for Grids, COM/2023/757):** Implementation of Action 6 of EU Action Plan For Grids.

Describe work area: Based on Action 6 of the EU Grid Action Plan, development of harmonized definitions for available grid hosting capacities and establish a pan-EU overview of available grid hosting capacities for new network users to connect, together with information on the volumes of connection requests being processed.

Describe deliverables:

- **Deliverable 1:** Working with ENTSO-E towards the harmonised definitions for available grid hosting capacities in cooperation with the European Commission and Regulatory Authorities. (Action 6)

- **Deliverable 2:** Establishment of a pan-EU overview of available grid hosting capacities for new network users to connect in cooperation with ENTSO-E.
- **Deliverable 3:** Ask Me Anything Webinar on harmonized definitions on the grid hosting capacities

4. **EG DF Work Package 4: (Article 55(2)(c) Knowledge Sharing) Best practices for Distributed Flexibility**

Describe work area: Communicating the activities, priorities and positions of the EG DF to the members of the DSO Entity and relevant stakeholders, developing a communication strategy for the implementation of Distributed Flexibility and organizing internal and external knowledge sharing activities.

Describe deliverables:

- **Deliverable 1:** Report on Best Practices on Distributed Flexibility
- **Deliverable 2:** Ask me Anything Webinar on Report on Best Practices
- **Deliverable 3:** Reflection Paper on Best Practices on Flexible connection Agreements (FCAs)

Describe work area: Foster transversality among the EGs by providing support with tasks closely related to flexibility, aiming to positively impact the efforts within the EG DF.

EG DF GANT CHART/TIMELINE (Broad overview)

			1	2	3	4	5	6	7	8	9	10	11	12	
No	Title	Deliverables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
WP-1 NCDR	Development & implementation of NCDR	Deliverable 1 Monitor the completion of the legal process for the development of the NC DR.													
		Deliverable 2 Preparation of an Action Plan for the NC DR.													
		Deliverable 3 Preparation of a Communication Plan for the NC DR.													
		Deliverable 4 Cooperation with ENTSO-E in the Development of the proposals for the Union-Wide Methodologies defined in the NC DR.													
		Deliverable 5 Supporting the European Stakeholder Committee for Demand Response in cooperation with ENTSO-E.													
WP-2 FNA Methodology	Methodology for Analysis of the Flexibility Needs by SOs	Deliverable 1 Definition of Data type and Format and Development of a Methodology for the Analysis of the Flexibility Needs by SOs and Submission to ACER													
		Deliverable 2 AMA Webinar on Flex. Methodology													
		Deliverable 3 Cooperation with ENTSO-E to Coordinate TSOs and DSOs in providing the Data and Analysis Defined in the Methodology													

WP -3 GAP Action 6	Implementation of GAP Action 6a	Deliverable 1 Harmonized Definitions on Available Grid Hosting Capacities													
		Deliverable 2 Pan-EU overview of Available Grid Hosting Capacities													
		Deliverable 3 AMA on Harmonized Definitions on Grid Hosting Capacities													
WP -4 Flex. strategy	Knowledge Sharing & Communication Strategy	Deliverable 1 Report on Best Practices on Distributed Flexibility													
		Deliverable 2 AMA on Best Practices Report on Distributed Flexibility													
		Deliverable 3 Reflection Paper on Best Practices on Flexible Connection Agreements (FCAs)													

4.3. EG – Data Interoperability

1. Commitments with the JWG

EG DI will coordinate the participation of members of DSO Entity to the JWG (Joint Working Group) set up in cooperation with ENTSO-E according to Implementing Regulation (EU) 1162/2023. In addition, it will monitor, evaluate the work of the JWG and, when appropriate, provide advice to the Board of DSO Entity concerning the deliverables of the JWG.

Furthermore, to support the work in the JWG, EG DI will also create liaisons with standardisation organisations. This will be used to facilitate the proposal of changes to standard models being undertaken as part of the Task Force 3 in the JWG.

EG DI will play a key role in the delivery of outputs coming from the JWG which include both direct legal mandates and knowledge sharing activities:

- A draft proposal for the European Commission of an Implementing Regulation on Demand Response as required in Implementing Regulation (EU) 1162/2023;
- A draft proposal for the European Commission of a Guidance document on Implementing Regulation on Customer Switching (to be mandated once the European Commission approves this implementing regulation);
- A draft proposal for the system operators of a guide document for the Implementing Regulation on Customer switching aimed at facilitating the implementation of this implementing regulation by system operators;
- A new version of the Harmonised Energy Market Role Model (with DSO Entity taking the role previously done by ebIX); and
- A repository where, among other things, the JWG will publish the reference models being submitted by Member States in compliance with the Implementing Regulation 1162/2023.

2. Support work in the subgroups of the Smart Energy Expert Group (SEEG)

The European Commission has created the SEEG to keep building on the work of the Smart Grids Task Force. The SEEG aims to assist the Commission on issues regarding the sustainable digital transformation of the energy system and the development and deployment of smart energy solutions.

EG DI will be supporting the contributions of DSO Entity to this new expert group and its sub-groups. More concretely, EG DI will be contributing directly to the discussion on the sub-group on Data for Energy (D4E) and support the other sub-groups as required.

3. Submeters (including Dedicated measurement devices (DMDs))

As new information/regulations become available about the potential role of submeters (including DMDs) in the sector, it will be important to keep monitoring the regulation of this topic to continue delivering on our pillar of knowledge sharing. Therefore, EG DI will keep updating and extending a reflection paper on submeters. This document will be used as a mechanism for knowledge sharing inside of the entity.

This work stream will have one main deliverable:

- Internal reflection paper considering the most recent information on submeters (including DMDs) and the technical requirements that should be considered for those sub-meters to ensure the necessary quality of information is available.

4. Analysis of data interoperability for energy sharing

As energy sharing (including energy communities) approaches are being transposed into the legislation of the different Member States, it would be important to ensure some degree of data interoperability between different Member States to facilitate that consumers can have access to a more competitive market. Therefore, this workstream will extend the work EG DI has undertaken this year for the development of a reference model that could be used for energy sharing to facilitate the development of a common understanding of these requirements as part of our knowledge sharing activities. This work would be presented in a reflection paper that lays down an initial description of the information processes that should be introduced into the system to ensure the efficient operations of the energy sharing mechanisms being introduced in the network grid.

5. Common European Energy Data Spaces

EG DI will continue its work knowledge sharing efforts aimed at the identification of good practices for the development of Common European Energy Data Spaces (CEEDs). As part of this work, it will be input into the work being undertaken by the European Commission via SEEG as well as continue to spread the internal knowledge inside DSO Entity on this topic.

GANT CHART / TIMELINE (broad overview):

	Q1			Q2			Q3			Q4		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
WP 1 Commitment with the JWG												
<i>Deliverable 1 - draft Implementing Regulation on Demand Response</i>												
<i>Deliverable 2 - draft of a Guidance document on Implementing Regulation on Customer Switching</i>												
<i>Deliverable 3 - draft guide document for the Implementing Regulation on Customer switching</i>												
<i>Deliverable 4 - A new version of the HEMRM</i>												
<i>Deliverable 5 - repository</i>												
WP 2. Support work in the subgroups of the Smart Energy Expert Group (SEEG)												
WP 3. Submeters (including DMDs)												
<i>Deliverable 6 - Internal reflection paper on submeters (including DMDs)</i>												
WP 4. Analysis of data interoperability for energy sharing												
<i>Deliverable 7 - reflection paper of the information model for energy sharing</i>												
WP 5. Common European Energy Data Spaces												

4.4. EG – Existing Network Codes

1. Follow-up on the amendments to grid connection Network codes (NC RfG and NC DC) :

Work area: In 2023 ACER and DG Ener opened the revision process for the NC RfG and NC DC. Upon ACER's presentation of the first draft of the amended network codes, the EG participated in the dedicated public consultation providing extensive feedback on the text proposals, including comments of technical and editorial nature. After the public consultation, which took place in September 2023, the European Commission took responsibility for advancing the revision process, which will include the following steps: the presentation of a new legal text, the opening of a new public consultation, the publishing of the revised network codes.

Deliverables: The EG will take part in the revision of the Network Codes RfG and NC DC by formally and informally providing feedback and input to the EC and ACER. In the first half of 2025, the EG will be providing its response to the public consultation that the EC will be launching (date to be defined). On a more informal level, the EG will keep interacting with relevant stakeholders (ENTSO-e, ACER and the EC), aiming to find shared positions on a series of topics, for instance compounding. This will require the EG to participate in several meetings, while developing technical content.

2. Guidance Document of GFC in DSO networks:

Work area: Grid forming capabilities will allow for the massive integration of renewable energy into the grid but at the same time pose a challenge for DSOs. This is why in 2024 the workstream started developing a guidance document for DSOs on the implementation of grid forming capabilities.

Deliverables: In 2024 the basis for the work on this topic was laid. In 2025, the EG aims at complementing this work, by completing the guidance document, which will also include risks mitigation measures for DSOs.

3. Development of Certification schemes for EVs and Heat Pumps

Work area: In 2023, our EG put forward the proposal of creating an expert group on certification schemes for EVs and Heat pumps in the framework of the ESC GC. This proposal was welcomed with enthusiasm by stakeholders, and our EG worked on delivering the skeleton of the ToR for this expert group. Although the EG Existing Network Codes doesn't have full ownership over the work of this expert group, which is in fact under the European Stakeholder Committee GC, it will nonetheless provide valuable inputs through its experts. This expert group will kick-off its activities in November 2024, while the most part of the work will be carried out in 2025.

Deliverables: The EG EX NC, will be providing Secretarial support for the organization of this expert group. It will nonetheless, through some of its experts, provide technical contributions. The entire EG EX NC will be informed during the process. This task is expected to last throughout 2025.

4. Continuous Interaction within the European Stakeholder Committees on GC and SO

Work area: Since 2023 DSO Entity is formally one of the co-organizers of the European Stakeholders Committees Grid Connection and System Operations. The EG EX NC both provides technical input through its experts and Secretarial support through the EG coordinators.

Deliverables: EG Existing network codes experts will be providing technical input during these meetings. This endeavor requires experts to prepare documentation before the meetings. While the general meetings of the ESC are held 4 times a year, there are several other meetings of sub-groups within the

ESCs that take place more regularly (workstream on heat pumps, EVs, SPGMs and Power2Gas). The EG coordinators carry out secretarial support by organizing the general ESC meetings once or twice a year, following a well-defined division of work between EU DSO Entity, ACER and ENTSO-E. Expert group coordinators nonetheless work on drafting the minutes for the general ESC meetings, upon agreement with colleagues from ACER and ENTSO-E.

5. **Review of existing NC or GL, especially as of new NC on Demand Side Response**

Work area: The newly drafted NC Demand Side Response showed to interact with some existing network codes. For instance, the current version of the NC demand response affects: 1) SO GL 2) EB Regulation 3) SO Regulation amendments DR NC incl CACM 2.0

Deliverables: EG Existing Network codes experts will be supporting to EG DF colleagues whenever needed, by providing technical opinions on topics affecting existing network codes. This may involve preparation of written technical analysis, response to public consultation, interactions in meetings.

6. **Possible re-opening of existing NC or GL, or chapter such as (GLDPM, KORRR, System Operation Guideline and Balancing Guidelines**

Work area: The primary goal of the EG is to participate in the revision process of the existing network codes (an overview [here](#)). Although it is unknown whether ACER will decide to start revising other existing network codes, the EG EX NC must find itself ready.

Deliverables: Should it be needed, experts will engage in the revision of other existing network codes, by drafting technical papers, responding to public consultations, interacting with key stakeholders (ACER, ENTSO-E and the European Commission).

7. **Collaboration with relevant Stakeholders**

Work area: Collaborating with stakeholders on technical matters in one of the key pillars of this EG and EU DSO Entity in general. In particular, this EG collaborates closely with ENTSO-E, ACER and other key industry players in the framework of the European Stakeholder Committees. Ad-hoc interactions with specific stakeholders are organised to discuss certain topics.

Deliverables: EG coordinators will facilitate the organisation and follow-up of these interactions, by arranging the meetings and producing minutes. Experts will contribute to these interactions by providing their technical expertise.

GANT CHART / TIMELINE (broad overview):

	Q1			Q2			Q3			Q4		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<i>#1 Follow-up on the amendments to grid connection Network codes</i>												
<i>2# Guidance Document of GFC in DSO networks</i>												
<i>3# Development of Certification schemes for EVs and Heat Pumps</i>												
<i>4# Interaction within ESC GC and SO</i>												
<i>5# Review of existing NC or GL, especially new NC DR</i>												
<i>6# possible reopening of other existing NC</i>												
<i>7# collaboration with relevant stakeholders</i>												

4.5. TF – DESAP

1. Define Smart Grid Indicators for the European Grid Operators (Article 55(2)(d) of Regulation (EU) 2019/943):

Work area: In 2025, the Task Force for Digitalization of the Energy System (TF DESAP) is set to play a pivotal role in guiding network operators towards sustainable and cost-efficient investments in smart grids. This guidance will be shaped through meticulous collaboration with ENTSO-E, ACER and the NRAs (CEER) to develop an EU Catalogue indicative of both relevant input and output indicators. By building on the work accomplished in 2024, this report will illustrate both the most relevant output and input indicators needed to produce a single consolidated deliverable (the set of Smart Grid Indicators). Together with all drafting parties, this report will aid regulators and operators to drive investments in smart grids and for monitoring the progress made. At the same time, it should be useful for regulators and operators but should not be used for benchmarking performance across Member States. End of Q1 and in Q2 of 2025, the drafted EU catalogue will also enter a stage of consultation with external stakeholders to provide feedback.

Deliverables:

- Joint report on relevant Smart Grid Indicators in the form of an EU Catalogue (input and output indicators) in anticipation for the Energy Infrastructure Forum 2025.
- Webinar that will present the defined output and input indicators, jointly hosted by all parties involved in the drafting process.

2. Define a concept for a Digital Twin of the European electricity grid:

Work area: In 2025, TF DESAP is set to continue its collaborative effort with ENTSO-E to define key concepts, set priorities for Digital Twin use cases, and develop a roadmap and recommendations for an EU electricity grid Digital Twin. Within this continuation, the Task Force will see a shift away from identified challenges to a more practical and interactive strategy that will outline best practices and grant recommendations on the developments made across the use of Digital Twins. Utilizing this use-case driven methodology, TF DESAP will also seek to actively engage with external technology providers, recognized as crucial in driving the project forward. This change in approach aims to foster a dynamic environment for continuous reevaluation and improvement of Digital Twin strategies.

Deliverables:

- Deliver recommendations and present research findings on a plan to adopt a Digital Twin of the European Electricity grid.
- Engage with external stakeholders to learn more about their approach on Digital Twins.

3. Support system operators in digitalizing and streamlining procedures for grid connection requests:

Work area: TF DESAP is set to begin its task as outlined in the GAP, notably action point 6, specifically focusing on supporting system operators to digitalize and streamline procedures for grid connection requests. The Task Force intends to focus on two core areas for connection requests, the primary being connection requests for PV and for household installations, focusing on a prioritized number of pain points where proven digital solutions are already in use. By compiling these two core areas, TF DESAP can deliver a concentrated deliverable that addresses the challenge of digitalizing and streamlining connection requests by identifying existing solutions and disseminating best practices that exist within

the EU Member States. Therefore, the Task Force will utilize the existing knowledge base and consult the broad network of experts within DSO Entity to deliver a report that addresses pain points.

Deliverables:

- Report on good practices identified from DSOs/Member States that address the challenges in digitalizing and streamlining connection requests.
- Webinar to present the findings drafted in the report.

4. Define a concept to promote the uptake of smart grid, network efficiency, and innovative technologies for system operators:

Work area: After the successful launch of the Technopedia Concept in the conclusion of 2024, TF DESAP will continue its cooperation with ENTSO-E and various external stakeholders. In 2025, the Task Force will progress by developing the content for the Technopedia platform further by jointly collecting relevant and valuable material from organizations and companies who wish to contribute to the Technopedia. Thus, with this established organizational structure from 2024 in collecting and reviewing material, the TF is poised to implement its concept methodology in an efficient manner that can maximize the valuable output for external dissemination. TF DESAP will approach this work very transparently to ensure that all stakeholders involved in the process are aware of the procedures required to integrate technologies in the Technopedia.

Deliverables:

- Joint development of a Technopedia platform with ENTSO-E.
- Webinar to present the Technopedia platform as well as introduce the interface to stakeholders.

5. Knowledge Sharing:

Work area: The Task Force plans to engage in external events and conferences when possible. In collaboration with the event coordination team, a calendar of events will be updated on a continuous basis. A primary goal for 2025 is to present a unified and well-coordinated stance on Smart Grid Indicators at the Copenhagen Forum 2025, as well as host a webinar to discuss the development of the Smart Grid Indicator EU Catalogue. Furthermore, in response to the GAP, specifically action 7, released by the European Commission in November 2023, TF DESAP will develop a knowledge exchange platform akin to ENTSO-E's Technopedia. This platform would serve as a hub for information and collaboration, as well as pro-actively include external stakeholders in the process of developing and drafting material to be included in the platform.

Deliverables:

- Webinar and/or consultation on the topic of Smart Grid Indicators EU Catalogue.
- A concept knowledge platform like ENTSO-E's Technopedia.

GANT CHART / TIMELINE (broad overview):

TF DESAP Annual Plan 2025	Q1			Q2			Q3			Q4		
2025 TF DESAP Work Package Timeline	1	2	3	4	5	6	7	8	9	10	11	12
Define Smart Grid Indicators for the European Grid Operators						*						
Define a concept for a Digital Twin of the European electricity grid												
Support system operators in digitalizing and streamlining procedures for grid connection requests												
Define a concept to promote the uptake of smart grid, network efficiency, and innovative technologies for system operators												
Knowledge Sharing												

*Key deliverable to be showcased at the European Commission’s Energy Infrastructure Forum (Copenhagen Forum).

4.6. TF –TF TYNDP

1. Distribution System Development Plans

Work area:

Enhance the transparency, reliability, and forward-looking nature of Distribution Network Development Plans (DNDPs) to support a sustainable and resilient distribution system. As DSOs face increasing demands to integrate renewable energy sources, manage flexible demand, and reduce connection delays, robust DNDPs are essential. This work area seeks to strengthen the capacity of DSOs to develop and implement high-quality DNDPs that align with EU energy and climate objectives. The focus will be on mapping existing DNDPs, identifying good practices, and establishing guidelines to support DSOs of all sizes, especially smaller operators facing resource constraints. The goal is to ensure all DSOs are prepared to plan and expand distribution networks efficiently, incorporating renewable energy sources and enhancing grid flexibility. This workstream also supports the delivery of Action Point 13 in the GAP which strives to reduce long lead times and supply shortages by collaborating with manufacturers, among others through increased visibility in project pipelines. To reach this objective easily accessible DNDP might be a part of the solution which will be explored.

Deliverables:

- Prepare in collaboration with ACER an update to the energy infrastructure forum 2025 (Copenhagen Forum) on DSO Entity's work on DNDPs

2. Collaborate on joint Distribution and Transmission System Development (55(2)(b)) of Regulation (EU) 2019/943

Work area:

Objective: Promote integrated and coordinated planning between DSOs and TSOs to enable a unified approach to energy transition and infrastructure development. Given the interconnected nature of Europe's energy networks, it is essential for DSOs and TSOs to align their planning processes. This work area aims to foster collaboration between distribution and transmission network operators, enabling coordinated grid development that integrates renewable energy, meets flexibility needs, and responds to cross-sectoral demands from areas like electromobility and heating. By improving data exchange and standardizing planning methodologies, TF TYNDP will support the creation of a streamlined approach to joint network planning, helping DSOs and TSOs manage shared challenges, optimize resources, and support an interconnected and resilient European energy system.

Deliverables:

- Exchange with ENTSO-E on network development topics including TYNDP, ERAA and DNDPs.

3. Guidance on Flexibility and Market Integration

Work area:

Equip DSOs to quantify flexibility needs as part of the distribution system development, promoting the integration of flexibility resources like demand response and energy storage to enhance grid stability and support decarbonization.

Deliverables:

1. Support Expert Group Distributed Flexibility with the development of a methodology to assess flexibility needs together with ENTSO-E as requested by (EU) 2024/1747 in article 19e.

4. Knowledge sharing

Work area:

Foster knowledge exchange among DSOs to improve network planning capabilities, share successful approaches, and support the adaptation of best practices across diverse DSO profiles.

Deliverables:

- Continue the internal presentation series on distribution system development topics.

GANT CHART / TIMELINE (broad overview):

TF DSD Annual Plan 2025	Q1			Q2			Q3			Q4		
2025 TF DSD Work Package Timeline	1	2	3	4	5	6	7	8	9	10	11	12
Distribution System Development												
Collaborate on Joint Distribution and Transmission System Development												
Guidance on Flexibility and Market Integration												
Knowledge Sharing												

4.7. TF – FIN

1. Regulation and tariffs

With the objective to support the delivery of tasks 4 and 8 in the GAP, this workstream will consider how regulatory tools and tariffs could be used to facilitate that DSOs can access the necessary funds to deliver the energy transition and how this could interact with other potential regulatory objectives. To undertake this work, TF FIN will consider potential barriers and good regulatory practices aimed at eliminating these barriers.

Given the broad range of issues that could be included in these areas, TF FIN will aim to have a flexible way of working to support the European Commission and ACER in those areas that are more relevant for them at each point. Therefore, the deliverables that we are aiming to deliver are:

- Paper on anticipatory investments;
- (High-level) reflection paper inventorying good regulatory practices to facilitate innovation and investment;
- Ad hoc documents identifying good regulatory practices for specific topics in regulation (e.g. regulatory tools to facilitate anticipatory investments or consideration of benchmark models to facilitate growing investment)
- Paper(s) identifying good practices for tariff design on ad hoc topics (e.g. reaction to ACER's paper on tariffs or effect of generation charges and their interaction with other regulatory tools)

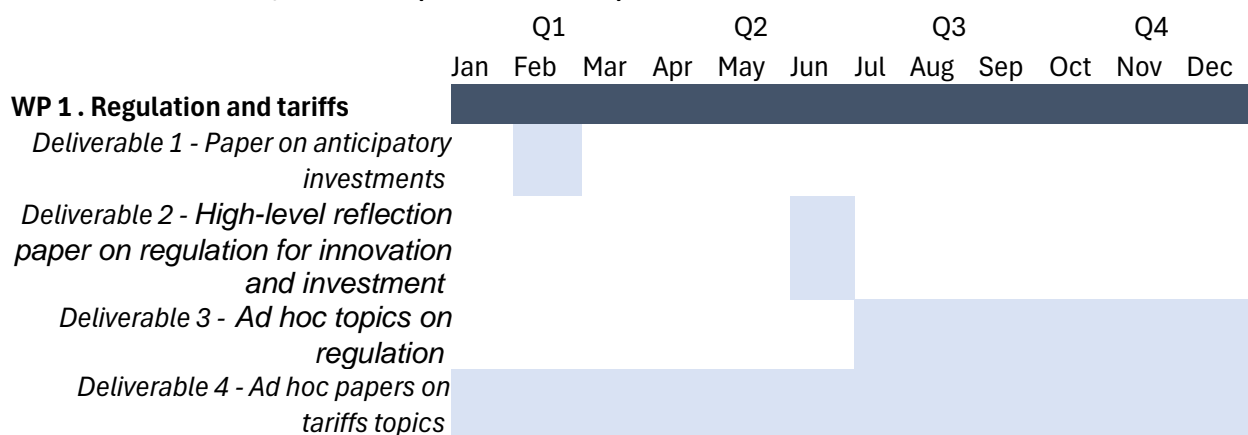
2. Finance and funding workstream

The aim of this work area is to support in the delivery of tasks 9 and 10a of the GAP. The objective of this work area will be to support the European Commission in the identification of potential barriers for DSOs to have access to the funding (public and private) they require for the delivery of the energy transition. Equally, it will also support DSOs to identify potential funding sources they could use.

To deliver these objectives, this work area will aim to:

- Develop a reflection paper on financial needs, challenges and barriers for different types of DSOs;
- Develop knowledge sharing material and activities in the area of European funding; and
- Support the DSO Entity in the provision of relevant input for the Investors' Dialogue (ID) meetings.

GANT CHART / TIMELINE (broad overview):



WP 2. Finance and funding workstream

*Deliverable 5 - Paper on financial
needs, challenges and barriers*

*Deliverable 6 - Knowledge sharing on
European funding for DSOs*

*Deliverable 7 - Input into Investors'
dialogue*

4.8. TF – Legal

1. Network Code on Cybersecurity

Work area: DSO Entity and ENTSO-E are working together in the Network Code on Cybersecurity (NCCS) TSO and DSO Working Group preparing the Terms, Conditions & Methodologies (TCMs) under the NCCS where one of the sub-groups is dedicated to legal matters.

Deliverables: dedicated TF members will be active in the NCCS legal group:

- advising the NCCS TSO/DSO Working Group and its technical sub-groups in their work of drafting TCMs and
- conducting legal reviews of the prepared TCMs.

2. Flexibility needs methodology

Work area: In accordance with the Electricity Regulation art 19e (4) DSO Entity and ENTSO-E define the type and format of the data and the methodology for the analysis that the TSOs and DSOs in each Member state have to provide for their national authority or designated entity for the preparation of a report of flexibility needs.

Deliverables: dedicated TF members will:

- conduct a legal review of the prepared document and
- prepare legal assessments to the questions raised by the drafting team.

3. Joint Working Group on Data: IR on Demand Response

Work area: Advising the JWG on Data Interoperability on drafting a proposal for the Implementing Regulation on Demand Response and provide support in drafting other proposals for legislative acts.

Deliverables: dedicated TF members will:

- conduct a legal review of the prepared document and
- prepare legal assessments.

4. Public Procurement Directives revision and Grid Action Plan, action 13

Work area: Under the Grid Action Plan action point 13 DSO Entity with ENTSO-E are required to develop mechanisms for providing increased visibility to manufacturers into their upcoming procurement plans for equipment and systems on all voltage levels. These discussions have raised further questions about whether existing Public Procurement Directives would need to be revised. TF Legal will investigate the need to engage and develop a proposal.

Deliverables:

- Deliverables for this work are not defined as of yet.

5. Revision of the Grid Connection Network Codes

Work area: Network Code on Requirements for Grid Connection of Generators (RfG) and Network Code on Demand Connection (DCC) are the first-generation network codes which were adopted in 2016. Since that time important policy developments in decarbonising EU's energy and transport sectors have been taken place and the European Commission is currently considering the recommendations made by ACER to amend the network codes and will adopt the revisions of RfG and DCC in the near future.

Deliverables:

- Support for EG Existing Network Code on the questions arising from implementation of the revised network codes on RfG and DCC.

6. Proposal for Network Code on Demand Response

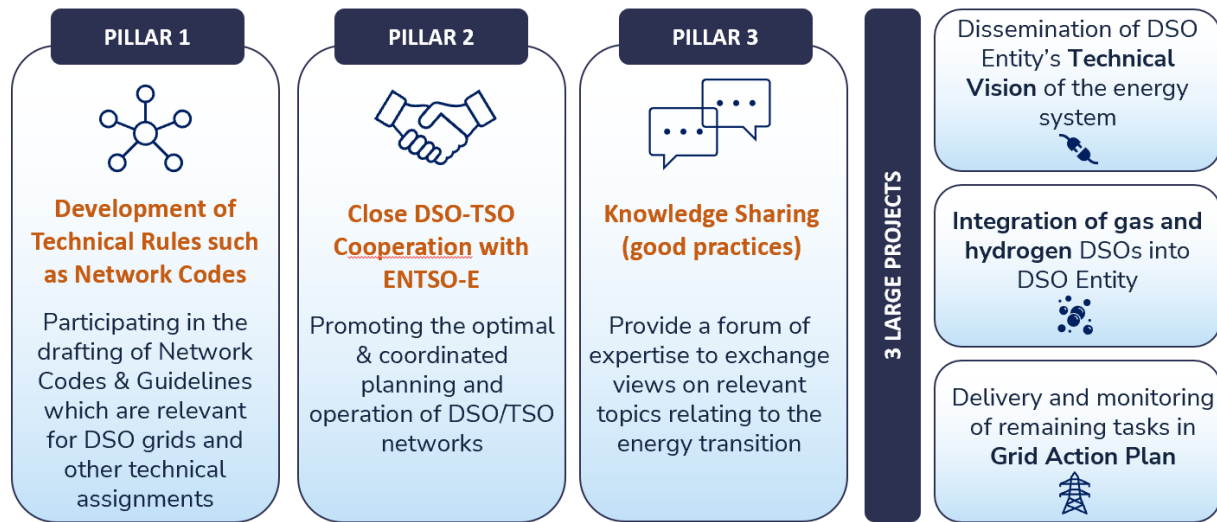
Work area: ACER is reviewing the proposal for the Network Code on Demand Response, which was submitted by DSO Entity and ENTSO-E. ACER will submit its proposal to the European Commission by March 2025.

Deliverables:

- In the development phase of the Network Code on Demand Response DSO Entity will be active in giving inputs and feedback and TF Legal is supporting internally on legal questions. Deliverables in more detail for this work are not defined as of yet.

5. Summary and conclusion

Despite some uncertainties resulting from the start of the new EU legislative term with priorities still to be defined and action plans to be delineated, DSO Entity’s workstreams and mandated tasks will proceed unabatedly. DSO Entity’s focus will continue to be on delivering its enlarged mandate in the three pillars and, additionally, continuing to deliver three major projects: (1) the dissemination of DSO Entity’s Technical Vision as a follow-up of this flagship project of the Knowledge Sharing Strategy, (2) the facilitation of the integration of gas and hydrogen DSOs into DSO Entity and (3) the delivery of the remaining assigned tasks through the Grid Action Plan.



Overview of core deliverables for 2025 in the three pillars

High-level overview of core deliverables for 2025 in the three pillars	
Pillar1	Regarding the technical activities, the EGs and TFs will continue to support NC-related processes and activities such as the finalisation of the Network Code on Demand Response and follow-up on related subsequent developments from ACER and the EC (EG DF); the implementation of the Network Code Cybersecurity by drafting Terms, Conditions and Methodologies with ENTSO-E (EG CS) and the active engagement in the process of amending the Grid Connection Codes (EG ExNC). Additional technical deliveries related to data interoperability are drafted via the Joint Working Group with ENTSO-E such as a draft for an Implementing Regulation for Demand Response and a guidance document for the Implementing Regulation on Customer Switching (EG DI). Other activities trace back to the Grid Action Plan such as the delivery of a harmonised definition on available grid hosting capacities (EG DF) or the development of an online platform (Technopedia) to promote the uptake of innovative grid technologies (TF DESAP) both together with ENTSO-E. Also, advice on the topic of funding and financing as deliverables of the GAP will be provided, for example with a paper on anticipatory investments (TF FIN). Other activities are follow-up assignments from the Copenhagen Forum in 2024 such as further exchanges on the Distribution Network Development Plans (TF TYNDP) and the preparation of a document that outlines a set of

	indicative input and output indicators for Smart Grid Indicators in cooperation with ACER, CEER and ENTSO-E (TF DESAP). Several more activities are ongoing that derive from other legislative and non-legislative acts such as the development of a methodology to assess flexibility needs together with ENTSO-E (EG DF) assigned in the EMD or the development of a digital twin as requested by the DESAP. TF Legal will support all the existing workstreams with active expertise on legal questions.
Pillar 2:	The close interaction with ENTSO-E will continue in all the established workstreams and intensify in the context of the delivery of the last remaining tasks mandated through the Grid Action Plan, but also the Electricity Market Design and the Copenhagen Forum. The joint TSO-DSO work programme will be regularly assessed and updated.
Pillar 3	Knowledge Sharing activities will continue within the EGs and TFs entailing more opportunities for members to exchange but also to inform and discuss with external stakeholders. The dissemination of the results of DSO Entity's Technical Vision will help raise awareness for the key role of DSOs in empowering customers, being technical enablers of the transition and a precondition for a well-functioning European economy. Further, the role of DSO Entity as a data hub and DSO platform for expertise should additionally be strengthened among others by improving the usage of the existing website through the addition of a dedicated Tab for <i>Knowledge Sharing</i> .

While two of the above-mentioned projects - i.e., the Grid Action Plan and the Technical Vision - are partly embedded in the existing DSO Entity's three-pillar structure, the third project, namely the integration of gas and hydrogen DSOs into DSO Entity, is detached from the existing workstreams. This separate and parallel process will continue to require close coordination with the current DSO Entity's members and with the four European gas associations to ensure a mutually acceptable and welcomed outcome.

In 2025, DSO Entity, together with its more than 830 diverse and engaged members and in close cooperation with ENTSO-E, will continue to work towards the delivery of a decarbonised European energy system. By joining forces, we hope to accomplish our part in this transition by empowering customers, facilitating the integration of renewables and, most importantly, providing a reliable electricity distribution to European households, businesses and industries.

List of abbreviations

ACER	The European Union Agency for the Cooperation of Energy Regulators
AP24	Annual Plan 2024
BESC	The Expert Selection Board Committee
BoD	Board of Directors
CAPEX	Capital Expenditures
CBC	Communication Board Committee
CEER	The Council of European Energy Regulators
CEG	Country Expert Group
DC	Demand Connection
DESAP	Digitalisation of the Energy System: Action Plan
DSO	Distribution System Operator
DT	Digital Twins
EC	European Commission
EED	Energy Efficiency Directive
EG CS	Expert Group Cybersecurity
EG DF	Expert Group Distributed Flexibility
EG DI	Expert Group Data Interoperability
EG EG ExNCC	Expert Group Existing Network Codes
EG	Expert Group
EMD	Electricity Market Design
ENCS	The European Network for Cyber Security
ENTSO-E	European Network of Transmission System Operators for Electricity
ENTSO-G	European Network of Transmission System Operators for Gas
EPBD	Energy Performance of Buildings Directive
ESC	European Stakeholders Committee
EV	Electric vehicle
ExCo	Executive Committee
FF55	Fit for 55 package

F-gases	Fluorinated Greenhouse gases
MoU	Memorandum of Understanding
MS	Member States
NCCS	Network Code Cybersecurity
NCDR	Network Code on Demand Response
NZIA	Net-Zero Industrial Act
OPEX	Operating Expenses
PCI	Project of Common Interest
RED	Renewable Energy Directive
RES	Renewable Energy Source
RfG	Requirements for Generators
RGI	Renewable Grid Initiative
SAG	Strategic Advisory Group
SEEG	Smart Energy Expert Group
SGI	Smart Grid Indicators
SOGL	System Operation Guideline
T&D BC	TSO-DSO Board Committee
TCMs	Terms Conditions and/or Methodologies.
TF	Task Force
TF DESAP	Task Force Digitalising the Energy System - Action Plan
TF TYNDP	Task Force Ten Year Network Development Plan
TSO	Transmission System Operator
TYNDP	Ten Year Network Development Plan