

# EU DSO Entity

# Annual Reporting 2024

# DSO Entity at a glance

## Who are we

DSO Entity is the legally mandated EU body for European Distribution System Operators (DSOs), uniting almost 900 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 pledges 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 exchange views 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 consumer-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 CO<sub>2</sub>-neutral energy system in the next decades, ensuring security of supply with future-proof network codes and with enhanced collaboration between TSOs and DSOs.

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# 1. Introduction

The European elections in 2024 marked the beginning of a new cycle of institutional renewal, setting the tone for a dynamic yet divided year. The first half of the year focused on finalizing key legislative files, while the second half was driven by the need to see the EU's new leaders recognise the critical importance of grids, and the distribution level.

## **Grids remain in the focus**

Early 2024 saw the continuation of the “Grid Momentum” that started in 2023 with the publication of European Commission’s communication COM (2023)757 “Grids, the missing link – An EU Action Plan for Grids”<sup>1</sup>. Several significant legislative proposals with a relevance for grids were adopted, including the Electricity Market Directive (EU)2024/1711 and Regulation (EU)2024/1747<sup>2</sup>, the Regulation (EU)2024/178 on the internal markets for renewable and natural gases and for hydrogen<sup>3</sup> and the Regulation (EU)2024/1735 on the strengthening Europe’s net-zero technology manufacturing ecosystem (Net-Zero Industry Act)<sup>4</sup>. Non-legislative initiatives further demonstrated the political will to address the challenges faced by grids, with the Commission’s Recommendation (EU)2024/1343 on speeding up permit-granting procedures for renewable energy and related infrastructure projects<sup>5</sup>, or the adoption of Council Conclusions of the Belgian Presidency on Advancing Sustainability Electricity Grid Infrastructure<sup>6</sup>.

## **From Green to Clean: building a new narrative for Europe’s Competitiveness**

From 6-9 June 2024, 360 million eligible EU citizens of the 27 Member States were called to cast their votes, to elect a new European Parliament. Followed by Ursula von der Leyen’s re-election as President of the Commission and her proposal of a College of Commissioner that took office on 1 December. While the Green Deal and its objectives remained valid and pursued, a shift to a greater focus on Europe’s competitiveness and security dimension became apparent with the announcement of the publication of a Clean Industrial Deal within the first 100 days of the new Commission. This shift in focus did not affect the support for grids, which continued to be visible in the political priorities presented by the institutions.

## **DSOs Entity’s role in 2024**

2024 showed growing concerns for the resilience of the EU’s energy system, and the threats posed to its electricity infrastructure, both physical and digital. Given the increasing decentralization of the energy system, DSOs became more relevant not only for integrating renewables but also for a reliable and stable

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<sup>1</sup> Commission Communication COM (2023)757 of 28 November 2023 to the European Parliament, the Council, the European Economic and Social Committee

and the Committee of the Regions: Grids, the missing link – An EU Action Plan for Grids.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> Regulation (EU)2024/1735 of the European Parliament and of the Council of 13 June 2024 on establishing a framework of measures for strengthening Europe’s net-zero technology manufacturing ecosystem.

<sup>5</sup> Commission Recommendation (EU)2024/1343 of 13 May 2024 on speeding up permit-granting procedures for renewable energy and related infrastructure projects.

<sup>6</sup> Council conclusions (10459/24) of 30 May 2024 on Advancing Sustainable Electricity Grid Infrastructure.

system. In 2024, the technical work needed to ensure a reliable, competitive and secure energy system in the future continued with active cooperation and interactions between DSO Entity, ENTSO-E, European institutions and stakeholders. DSO Entity, alongside its 830 members, continued to work to promote the functioning of the European electricity market, and facilitate the energy transition. The core of the Secretariat's work remained fulfilling its mandated tasks on the development of technical rules and guidelines and a close cooperation with ENTSO-E. On top of the regular work, 2024 was characterized by three major projects: the delivery of the Grid Action Plan, the development of DSO Entity's Technical Vision, and the preparation for the integration of gas and hydrogen DSOs into DSO Entity.

### **Objective and structure of the Annual Reporting of 2024**

DSO Entity is legally obliged to present each year an Annual Report, informing about the delivered mandated tasks and key accomplishments with a special focus on the work of its EGs and TFs. (Electricity Market Regulation, 2019/943/EU2, Art. 55 (2d)).

**Chapter 1** provides context as to the general environment in which DSO Entity evolved in 2024

**Chapter 2** gives a detailed overview of the delivery of the mandated tasks of all the EGs and TFs

**Chapter 3** describes DSO Entity's completed deliverables on horizontal task such as the Knowledge Sharing Strategy

**Chapter 4** concludes the Annual Reporting of 2024

## 2. Reporting of Expert Groups and Tasks Forces for 2024

In 2024, two additional expert groups were formed to support the delivery of DSO ENTITY mandate. Task Force Finance was established to address the investment challenges for distribution systems associated with energy transition. Later, the Task Force Legal was launched to provide extensive legal support across all expert groups, with a specific focus on the development and implementation of Network Codes and Guidelines. Comprising over 200 DSO experts, these groups serve as a robust and inclusive platform that represents all European DSOs, connecting 98% of electricity customers.

In 2024, expert groups significantly enhanced their collaboration with ENTSO-E through the established eight joint working groups and their dedicated stakeholder groups. Additionally, cooperation among the representatives of both associations' Board of Directors intensified, focusing on the progress of the Joint Work Program. This increased activity is supported by stronger cooperation among DSOs to fulfill legal mandates and assist the European Commission and ACER upon request.





## 2.1. EG Cybersecurity

### Work Area 1: Publication of the Network Code on Cybersecurity

#### Description

Based on the contribution of DSO Entity Cybersecurity Expert group in collaboration with ENTSO-E done in 2022/2023, the EU network code on cybersecurity for the electricity sector (C/2024/1383) was adopted on 11 March 2024 published in the Official Journal of the EU on 24 May 2024, and entered into force on 13 June 2024. Foreseen under the Electricity Regulation (EU) 2019/943 (Article 59) and in the 2022 EU Action Plan to digitalise the energy system, this network code is an important step to improve the cyber resilience of critical EU energy infrastructure and services.

#### Deliverable

- EU Network Code on Cybersecurity for the electricity sector enters into force : 13 June 2024

### Work Area 2: Development of Terms Conditions and Methodologies for Cybersecurity (TCM) and Implementation of the Network Code on Cybersecurity

#### Description

In 2024 the joint working group between DSO Entity and ENTSO-E started the development of Terms Conditions and Methodologies (TCM) for cybersecurity with non-binding guidance pursuant to Article 48 of the Network Code Cyber Security. Two documents were finalized and approved by the Board of both associations and communicated to all members for implementation:

- **Electricity Cybersecurity Impact Index (ECII).** This index establishes important high-impact and critical-impact thresholds under the Network Code for Cybersecurity (NCCS) to assist national competent authorities in identifying key entities within the electricity network. The ECII deliverable was consulted with relevant stakeholders (ACER, ENISA, EC) on 23 July 2024.
- **Provisional List of Union-Wide High-Impact and Critical-Impact Processes,** developed in line with Commission Regulation (EU) 2024/1366.

This list is an essential resource for organizations preparing their cybersecurity risk assessments, identifying processes crucial to the resilience of the EU electricity system. It includes key operational, planning, balancing, and emergency processes for both transmission and distribution systems. Consultation with external stakeholders was done on 10 September 2024.

In addition, the public consultation on the Cyber Risk Assessment Methodology was also opened from 5 November to 5 December 2024, allowing all interested parties to provide their views and a public webinar was organized in this context. The public consultation has been closed with several responses by stakeholders.

## Deliverables

- Electricity Cybersecurity Impact Index (ECII): 11 October 2024
- Provisional List of Union-Wide High-Impact and Critical-Impact Processes: 12 December 2024
- Launch of the Cyber Risk Assessment Methodology public consultation: November-December 2024

## Work Area 3: Knowledge sharing

### Description

As part of knowledge sharing activities in 2024, Cybersecurity Expert group communicated the deliverables towards DSO Entity members and other relevant stakeholders, (including EU commission) through a number of activities, including public webinars, internal workshops, and dedicated videos to explain different CS chapters. In addition, Cybersecurity Expert group organized business continuity management trainings (BCM) focusing on three main topics:

- Crisis Management Plans, DSOs experts shared the best practices used for:
  - protecting corporate Mission, Vision, Objectives, (Intangible) Values
  - Provide guidance and authority to the operational/tactical level while in Crisis mode
  - Focus on minimizing the negative medium- to long term effects of the Crisis
- Business recovery plans covered the organizational aspects of the covered Products/Services (People, premises, processes, workarounds),
- Disaster recovery plans focused on best practices for Infrastructure/utilities/technological assets and Information Assets supporting the covered Product/Services (Systems, Networks, Applications, Machines, Equipment).

### Deliverables

- Business continuity management training.
- Ask me anything webinars.
- Recorded videos for NCCS chapters.
- Evaluation and commenting on confidentiality guidelines and cybersecurity benchmarking guideline documents prepared by ACER.



## 2.2. EG Distributed Flexibility

### Work Area 1: Proposal for Network Code Demand Response (NC DR) and follow up work

#### Description

#### 2.1 Development & Submission of the Joint Proposal of DSO Entity & ENTSO-E on NC DR

Based on Article 59(9), on 9 March 2023 the European Commission invited the DSO Entity, in cooperation with ENTSO-E, to submit to ACER a proposal for a network code on demand response in accordance with ACER's Framework Guideline on Demand Response.

To achieve this, the DSO Entity and ENTSO-E established a Development Team in 2023 and convened a Drafting Committee composed of representatives of the EC, ACER and relevant stakeholders to support the network code development process.

In 2024, the drafting process continued with the analysis of the feedback from the public consultation launched in the last quarter of 2023, which was evaluated together with further insights from relevant stakeholders and internal discussions within the DSO Entity and ENTSO-E. The joint proposal of the DSO Entity and ENTSO-E on NC DR was submitted to ACER on 8 May 2024.

#### 2.2 ACER Process & Participation in the Public Consultation

Following the submission of the proposal, the cooperation between the DSO Entity and ENTSO-E continued to interact with ACER during the review and amendment of the proposal.

DSO Entity and ENTSO-E have again engaged in extensive discussions in preparation for the ACER public consultation on the NC DR, which was open from 5 September to 31 October 2024. This culminated in the submission of a joint letter by DSO Entity & ENTSO-E to ACER in response to the public consultation on NC DR, with DSO Entity submitting its own response separately.

Following the public consultation, DSO Entity continued its active participation in discussions with the ACER-led Drafting Committee, which is focused on enhancing the ACER recommendation to the European Commission, expected on March 7<sup>th</sup> 2025. DSO Entity provided insights on several key topics crucial for DSOs, including the delegation and assignment of tasks, standardization of data exchange, architecture of flexibility information systems, flexible connection agreements, reactive power, and measurements and DMDs.

#### Deliverable

- **February 2024:** Ask me Anything webinar on NC DR;
- **May 2024:** Submission of the joint proposal of DSO Entity and ENTSO-E on the NC DR to ACER;
- **October 2024:** Participation in ACER public consultation on Draft NC DR.

## Work Area 2: Internal & External Consultations on Flexibility

### Description

#### 2.1 Participation in Internal & External Consultations

EG DF participated in the internal and external consultations as appropriate, in particular those with an impact on distributed flexibility to ensure consistency with ongoing EU legislations within the mandate of the DSO Entity.

### Deliverables

- **Q1 2024:** Evaluation of the final version of Electricity Regulation and Electricity Directive as part of the electricity Market Design Reform, in the frame of the Electricity Market Design initiative of the Commission;
- **Q1 2024:** Participation in ACER public webinar on the removal of barriers to electricity demand response;
- **Q4 2024:** Participation in ACER public consultation on the Draft Network Code Demand Response

## Work Area 3: Support to other EGs on flexibility related topics

### Description

#### 3.1. Support to Other EGs/TFs

With the aim to keep transversality in DSO Entity's work, EG DF supports the work of other EGs whose tasks are closely related with flexibility and can possibly impact the work in the EG DF, and more precisely on the NC DR.

In this context, EG DF provided inputs to:

- EG DI, in particular JWG on Data Interoperability, in development of Implementing Acts on Customer Switching and Demand Response to ensure the alignment with the NC DR;
- EG Existing Network Codes during the amendments of RfG NC, DC NC, analysing their impact on NC DR;
- Other expert groups and task forces leading the work under the EU Action Plan for Grids, in topics related to distributed flexibility or demand response.

#### 3.2. Support to Implementation of EU Action Plan for Grids

In addition, EG DF partly leads the implementation of Action 6 of the EU Action Plan for Grids. GAP Action 6 requires DSO Entity, together with ENTSO-E, to agree on harmonized definitions for available grid hosting capacity for system operations and to set up a pan-EU overview. To achieve this, EG DF established a subgroup of EG DF and TF TYNDP experts working on GAP Action 6. The subgroup is cooperating with ENTSO-E experts to create a Joint Task Force and effectively identify and map existing definitions on grid hosting capacity.

### Deliverables

No deliverables expected

## Work Area 4: Development of a methodology for the analysis of flexibility needs by EU DSO Entity and ENTSO-E

### Description

#### 4.1. EMDR and Establishment of the Joint Task Force with ENTSO-E

Based on Art. 19e (4) of the EU Regulation 2019/943, as amended by the Electricity Market Design Reform (EMDR), the DSO Entity and ENTSO-E have been mandated to develop a common methodology for the analysis of flexibility needs by DSOs and TSOs, including the definition of the data type and format to be provided by DSOs and TSOs to the Authority/designated body by each Member State.

In order to achieve this, the DSO Entity and ENTSO-E established a Joint Task Force (JTF) in April 2024 to prepare the draft methodology for flexibility needs assessment (FNA) and ensure its submission to ACER by 17 April 2025 as per Article 19e (6).

#### 4.2. Development of the Proposal for FNA Methodology & Stakeholder Engagement Process

The Joint Task Force of the DSO Entity and ENTSO-E worked in 4 sub-groups to develop the methodology on specific topics and met regularly in interaction with ACER, the European Commission and relevant stakeholders. 13 key stakeholders were identified and engaged in an intensive exchange on several topics to identify data inputs and scenarios to assess flexibility needs and to develop the methodology as a useful tool to ensure the necessary level of flexibility.

A public consultation on the draft FNA methodology was also opened from 8 November to 6 December 2024, giving all interested parties the opportunity to provide their views, and a public webinar was organised in this context. The public consultation was closed with responses from 39 different parties and the JTF continues to analyse the comments to improve the draft.

### Deliverables

- **April 2024:** Establishment of a joint task force with ENTSO-E; 2024: Establishment of a joint task force with ENTSO-E;
- **Q3 & Q4 2024:** Organisation of 4 stakeholder sessions;

## Work Area 5: Communication and strategy for DSOs on Distributed Flexibility

### Description

#### 5.1. Representation of DSO Entity in External Events

The EG DF experts represented DSO Entity and shared their expertise on distributed flexibility at various events in 2024. This includes the opportunity to intervene in several courses and workshops of the Florence School of Regulation (FSR) as well as other conferences (e.g., ENLIT Europe, SGTech Week 2024, European Electricity Regulatory Forum of EC, etc.) organised in Brussels and in other EU Member States.

#### 5.2. Knowledge Sharing Activities on Distributed Flexibility

As part of knowledge sharing activities, the EG DF communicates its work, priorities and positions towards DSO Entity and relevant stakeholders, mainly through webinars.

In 2024, EG DF organised 4 webinars with experts from different countries to present their best practices on distributed flexibility and a technical workshop between EG DF members on harmonization of local

flexibility products. These events facilitated discussion and information gathering in flexibility use cases implemented in different DSOs and countries, and the findings will be compiled into the Best Practices Report by Q1 of 2025.

#### Deliverables

- **Q3 & Q4 2024:** Organisation of series of webinars with EG DF experts from 4 different countries;
- **December 2024:** Organisation of a technical workshop on harmonization of local flexibility products within EG DF members.

## 2.3. EG Data Interoperability

### Work Area 1: Contribution to Joint Working Group (JWG)

#### Description

The EG DI oversees the involvement of DSO Entity members in the Joint Working Group (JWG) with ENTSO-E. Additionally, it tracks and assesses the JWG's progress and, when needed, offering recommendations to the DSO Entity Board about its outputs. Throughout 2024, the JWG and its task forces, which include EG DI members, worked towards fulfilling their responsibilities under Articles 11 and 12 of the Implementing Act on Electricity Metering and Consumption Data (EU) 2023/1162.

The JWG is structured in three different task forces with their associated deliverables:

- **Task Force 1** develops the tasks regarding guidance, collection, and publication of the reports of national practices for the specific reference models.
- **Task Force 2** is mandated by Article 12(2) of Implementing Regulation (EU) 2023/1162 to develop, as part of future implementing acts, interoperability requirements and non-discriminatory and transparent procedures for access to data required for customer switching and demand response.

The Task Force was split into two different groups: the first one focusing on the Implementing Act in Customer Switching (IA CS) and the second one on the Implementing Act in Demand Response (IA DR).

- **Task Force 3** started in February 2024 and is responsible for ensuring consistency on the proposed reference models found in different Implementing Acts, mapping the reference models to 'standard' models, proposing amendments to the existing standards, and keeping a repository of roles and use cases existing in IAs.

During 2024, this Task Force worked closely with Task Force 2, ensuring consistency on the IAs being developed. Additionally, it focused on updating the Harmonised Electricity Market Role Model (HEMRM) to ensure the representation of all the roles, dealing with Maintenance Requests, and finally structuring the way forward.

#### Deliverables

- **May 2024:** Guidance for the Mapping of National Practices that was submitted to the EU Commission on March 2024 and the final document was published in May 2024.
- **October 2024:** Submission of the draft of the Implementing Act in Customer Switching to the European Commission in October 2024.

In addition to the deliverables found on the three TFs, the JWG also worked on the construction of a common repository for DSO Entity and ENTSO-E. This joint venture was initially only required to publish the reports of national practices, following the guidance document of TF1, but the JWG decided to enlarge the scope to host any joint document as well published by TF2 and TF3. After internal alignment, the procurement process of the repository will start during Q1 2025.

## Work Area 2: Support work in the sub-groups of the Smart Energy Expert Group

### Description

In October 2024, the European Commission started the operations of the Smart Energy Expert Group (SEEG) and its three sub-groups. As part of this process, DSO Entity nominated its representatives for the main group and its sub-groups. EG DI has been identified as the DSO Entity group leading in the operations of the Data4Energy (D4E) sub-group.

## Work Area 3: Knowledge Sharing on Submetering (also including DMDs)

### Description

As part of its knowledge-sharing activities, EG DI has developed an internal reflection paper on sub-metering in the EU, exploring its potential to enhance energy management, demand response, and flexibility services. Sub-metering involves measuring energy consumption behind the main electricity meter and can be managed by DSOs or third parties.

The paper highlights regulatory gaps across EU member states and calls for a unified definition and regulation for sub-metering, emphasizing the need for harmonization to avoid market fragmentation.

### Deliverables

- **September 2024:** Reflection paper on Submetering including DMDs.

## Work area 4: Knowledge Sharing on data interoperability of Energy Communities

### Description

The paper explores the interoperability requirements for energy sharing (including Energy Communities) across different EU member states. This paper aims to facilitate that DSO Entity members can have a common understanding of these requirements and, if necessary, it could constitute the base for future legislative work in the area. To understand these requirements, it reviews energy-sharing implementations like Austria, Spain, Italy, and the Czech Republic, highlighting varying regulations and procedures. Based on that analysis, the document proposes a unified reference model to ensure consistency across the EU and undertake an initial identification of roles, processes, and responsibilities within energy-sharing units. The goal is to use this document as a base to create standardized frameworks that support clean energy transition, increase public participation, and reduce energy costs.

### Deliverables

- **October 2024:** Reflection paper on data interoperability of energy sharing.



## Work Area 5: Knowledge Sharing on Common European Energy Data Space

### Description

The document discusses the development of a Common European Energy Data Space (CEEDS) to enable secure, interoperable energy data sharing across the EU with the objective of sharing knowledge on these topics across the different members. It addresses key challenges such as the lack of standardized identification, authentication, and data exchange methods, and managing decentralized small-scale energy resources.

Recommendations include clarifying DSOs' roles, enabling real-time data access, and implementing standardized protocols to create a transparent, efficient energy ecosystem supporting renewable integration and energy market digitalization. The work on the White Paper will continue in 2025.

## 2.4. EG Existing Network Codes

### Work Area 1: 2024 Follow-up on the amendments to grid connection Network codes (NC RfG and NC DC)

#### Description

1. The work involves addressing the release of ACER's draft Grid Connection Network Code and sharing observations from the DSO perspective with the European Commission. The focus is on proposing legal text amendments to clarify the involvement of all European DSOs, highlighting issues like the applicability of the Requirements for Generators (RfG), grid forming, and the responsibilities between EV manufacturers and EV supply equipment manufacturers. The DSO Entity also acknowledges positive collaboration with ACER and ENTSO-E, while raising concerns about potential misinterpretations in the draft.
2. ACER Consultation on amendments to the Network Code on HVDC: The consultation aims at presenting ACER's draft amendments to the 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 ('NC HVDC').

#### Deliverables

- **February 2024:** DSO Entity's reaction to ACER's submission of the EC on Grid Connections NC. Focus on RfG 2.0' letter addressed to Ms Pinho and Ms Sikow-Magny.
- **September 2024:** ACER draft amendments to the Network Code on HVDC' document was uploaded.
- **October 2024:** Following ACER's workstreams on the EC Grid Connections NC, the letter to the EC of February 2024 (above) is updated with a follow-on note sent to the EC.

### Work Area 2: Anticipatory work predicated on the amendments of the grid connection NCs focusing on key DSO aspects

#### Description

1. Research, jointly with other key stakeholders, into the issues and mitigations of GFC in DSO networks. Related to the grid forming capability, the EG Existing Network Codes explored the likelihood of islands forming and what the range of associated parameters might be. This initiative was also requested by ACER towards the DSO Entity within the ESC forum in December 2023. The draft NC RfG is expected to call for the production of road maps in the period early 2025 to the end of 2027.
2. Development of equipment certification schemes for EVs and heat pumps. This initiative intends to create a base in 2024, looking forward to 2025 and afterwards.

## Deliverables

- The EG Existing Network Codes produced the first steps of a report for grid forming and roadmap. The first draft of 'Guidance on the creation of a roadmap to the introduction of high penetrations of Grid Forming Power Park Modules [PPMs] onto distribution systems' was created.
- **April 2024:** Note for the EC on changes to ACER's text on V2G EVs: An update on the changes in V2G EVs and EVSE capabilities since the initial response to ACER's text. It highlights insights gained through interactions with manufacturers involved in EV standards committees, particularly regarding compliance with standards such as EN 50549-1. The document explains how V2G EV/EVSE combinations can implement functionalities like reactive power control, interface protection requirements, and discusses the likely redundancy of ACER's EV1 classification. It also addresses ongoing issues such as the aggregation of power park modules and the necessity of FONs for EV2 and EV3.
- **June 2024:** The draft terms of reference for an ESC expert group on the certification of EV/EVSE and heat pumps were accepted by the ESC and it was agreed at the September ESC that the EU DSO Entity would lead the expert group and provide the secretariat. The first meeting of the expert group, consisting of about 50 EV and heat pump stakeholders, had its first meeting in October 2024, with two further meetings in November and December.

## Work Area 3: Interaction with the European Stakeholder Committees

### Description

Interaction with ESC: in March 2024, the ESC GC Meeting was organized. As a follow-up, DSO Entity created slides attempt to show the difference between (most) DSOs' interpretation of the existing NC RfG and the proposed interpretation of PPMs in NC RfG 2.0.

### Deliverables

- **March 2024:** ESC Meeting on GC
- **April 2024:** ESC Discussion Document – DSO Entity views on Aggregation of PGMs
- **June 2024:** ESC Meeting on GC
- **August 2024:** ESC Meeting on GC (SPGM and EVSE)
- **September 2024:** ESC Meeting on GC (Heat pumps)
- **December 2024:** ESC Meeting on GC
  - In June 2024, DSO Entity organised and hosted both ESCs on SO and GC in Brussels (2 days event).
  - EG Existing Network Codes and the Secretariat were involved in preparing agenda, minutes and contents of discussion alongside ACER and ENTSO-E.

## Work Area 4: Possible re-opening of existing NC or GL, such as CACM (GLDPM, KORRR System Operation Guideline and Balancing Guidelines)

### Description

During 2024, the EG EX NCs further aligned with all the EG, such as EG DF on the Demand Response NC and TF on Implementing Act on Interoperability and Data Exchange, to synchronise EU DSO Entity answers to relevant EU Institutions.

### Deliverables

- **July 2024:** KORRR data exchange standards document from ENTSO-E
- Produced a compilation of the issues that DSOs should be promoting.

## Work Area 5: Communication with relevant Stakeholders

### Description

During 2024, the EG on Existing NC conducted several meetings with relevant EU stakeholders on the topics of interest. Stakeholders could be EU institutions or EU associations for specific issues, such as EVs, heat pumps, or any other relevant EU associations. The meetings were organized with the following stakeholders:

1. Organizing bilateral meetings with ENTSO-E
2. ESC Meetings – refer to Work Area #3
3. Meetings with DG ENER
4. Meetings with ACER
5. Bilateral meeting with ACEA
6. Meeting with ELAAD

### Deliverables

- Continued and enhanced collaboration with relevant stakeholders, especially on Grid Connection NC and also on other relevant network codes and guidelines.

## 2.5. TF DESAP

### Work Area 1: Identify challenges potentially motivating use of Digital Twin Solutions and definition of Smart Grid Indicators

#### Description

From the outset, the Task Force recognized the need to establish a shared understanding and common language to facilitate effective collaboration with ENTSO-E experts. To address this, TF DESAP defined key challenges and DSO needs in Work Area 1, focusing on how Digital Twins (DT) and Smart Grid Indicators (SGIs) could provide solutions. This initiative, which made significant progress in 2023, was expected to be harmonized and finalized quickly in 2024, enabling the identification and prioritization of common challenges for DSOs and TSOs.

#### Deliverables

- DSO Entity jointly with ENTSO-E drafted their internal paper on challenges and opportunities related to present and future needs of the EU electricity system.

### Work Area 2: Define Smart Grid Indicators for the European Grid Operators

#### Description

The primary objective of the Task Force Digitalisation of the Energy System (TF DESAP) in 2024 was to provide guidance and support for network operators on sustainable and cost-effective smart grid investments. This was to be achieved through a carefully selected set of Smart Grid Indicators, developed via a stepwise and collaborative learning process. A key milestone was to deliver a comprehensive initial update at the Energy Infrastructure Forum in June 2024. Building on the groundwork laid in 2023, TF DESAP completed a report depicting the current implementation status of Smart Grid Indicators (SGIs) across European member states. This report would also include preliminary key principles which could serve to frame the definition of smart grid indicators. Eventually, the report would define an initial set of indicators aimed at addressing some of the challenges identified in the preparatory work leading up to 2024 to be potentially enriched in a second step starting from mid of 2024 with results stemming from selected DT use-cases.

#### Deliverables

- TF DESAP delivered its report on key principles on smart grid indicators, which included use cases and different levels of observability, as well as an initial set of smart grid indicators in anticipation for the Energy Infrastructure Forum 2024.
- Following the Energy Infrastructure Forum 2024, TF DESAP collaboratively began working with CER, ACER, and ENTSO-E to develop an indicative list of both input and output Indicators. This work will continue in 2025.

### Work Area 3: Define a concept for a Digital Twin of the European electricity grid

#### Description

In 2024, the Task Force for Digitalisation of the Energy System (TF DESAP) started to work jointly with ENTSO-E on the concept definition for Digital Twins. At the same time, the Task Force planned to expand its work on Digital Twins, shifting from a system operator-centric, top-down approach—previously focused on internal discussions—toward a more practical, hands-on methodology. This revised strategy included going for a use-case methodology and engaging with external technology providers, which the Task Force considered essential for advancing the topic further. Consequently, the initial approach on Digital Twins would be continuously reevaluated to ensure knowledge sharing about existing Digital Twin solutions.

#### Deliverables

- TF DESAP actively participated in the Joint Task Force (JTF) on Digital Twins with ENTSO-E and has expanded its work in the field. As per the JTF project plan, the Task Force has drafted a paper on joint DSO/TSO Challenges and Opportunities and is consciously developing use cases on Digital Twins that will be further developed in 2025.

### Work Area 4: Knowledge Sharing

#### Description

As a key component of the EU DSO Entity, the Task Force Digitalisation of the Energy System (TF DESAP) participated in knowledge sharing at all levels across the organization. The Task Force engaged in external events and conferences when possible. A primary goal for 2024 was to present a unified and well-coordinated stance on Smart Grid Indicators at the Copenhagen Forum 2024. Furthermore, in response to the Grid Action Plan, specifically action 7, released by the European Commission in November 2023, TF DESAP explored the potential to develop a knowledge exchange platform akin to ENTSO-E's Technopedia. This platform would serve as a hub for information and collaboration, enhancing the overall effectiveness and reach of the TF DESAP's initiatives.

#### Deliverable

- At the conclusion of 2024, TF DESAP, with the collaboration of ENTSO-E, introduced its implementation plan for its concept knowledge platform for the Technopedia.

### Work Area 5: Submitted consultations in 2024 (ACER, European Commission, Other...):

#### Deliverable

- **ACER & CEER, 29 July:** TF DESAP, in relation to its work on Smart Grid Indicators, submitted a consultation to a joint report drafted by CEER and ACER in which they requested feedback on their guidance paper “Electricity transmissions and distribution “smart-grid” performance indicators.”



## 2.6. TF TYNDP

### Work Area 1: Involvement in ENTSOs' TYNDP process

#### Description

Following and contributing to ENTSO-E's and ENTSG's (ENTSOs) TYNDP process, including the reactions to the public consultations and our participation in the scenario External Technical Advisory Group (ETAG) - now Stakeholder Reference Group (SRG) - as established in 2023. TF TYNDP followed closely the TYNDP process and exchanged with the ENTSOs on specific key aspects of the process focusing especially on scenario development.

#### Deliverable

- TF TYNDP reacted to ENTSO-E relevant public consultation on the TYNDP 2024, joined the SRG and followed the launch of the TYNDP 2026 process.

### Work Area 2: Developing the Model DNDP for Europe

#### Description

After the summer months in 2023, TF TYNDP investigated alternative approaches to support DSOs in their system development work. Outcome of this investigation was the proposal of the involved experts to reshape the focus of the TF away from an exclusive focus on the TYNDP process to focus in 2024 on the larger topic of system development and specifically on the increasingly important topic of distributed network development plans (DNDP). For 2024, TF TYNDP would concentrate on reacting to the task related to DNDP coming from the Copenhagen Forum 2024 and the Grid Action Plan as published by the European Commission in November 2023. The TF TYNDP agreed to engage in drafting a model DNDP for European's DSOs in an approach to identify and harmonize good practices on DNDP drafting in Europe.

#### Deliverable

- TF TYNDP published a paper on identified good practices on Distribution Network Development Plans (DNDPs). This paper was drafted as a report for the Energy Infrastructure Forum and highlighted the importance of DNDPs for the European DSOs.

### Work Area 3: Supporting the work related to article 19c of the Energy Market Design

#### Description

Support the work as mandated to DSO Entity in article 19-c of the energy market design (EMD). It is expected that the EMD would go into force in early Q2 2024, afterwards DSO Entity and ENTSO-E would have 9 months to prepare their draft flexibility needs methodology as of the latest work version of the EMD. Independent of the final version of the EMD, DSO Entity needed to prepare for the work mandated within the EMD regulation and TF TYNDP may have needed to play a supporting role within this work.

#### Deliverable

- TF TYNDP was involved in the development stage of the flexibility needs assessment in which it provided feedback to Expert Group Distributed Flexibility on certain topics regarding development plans.

### Work Area 4: Knowledge sharing

#### Description

As a key component of the EU DSO Entity, the Task Force Ten Year Network Development Plans (TF TYNDP) would actively participate in knowledge sharing at all levels across the organization in 2024. As a main activity on knowledge sharing, the TF TYNDP identified the need to largely exchange with DSO Entity's member base on the topic of DNDPs. Additionally, as part of the increasing need to find funding opportunities for DSO infrastructure projects, TF TYNDP wishes to further investigate the opportunities of Smart Grid PCI projects for DSOs.

#### Deliverables

- TF TYNDP experts engage in a continuous knowledge exchange on their work drafting DNDPs for their organizations throughout the year 2024.
- TF TYNDP presented their work on DNDPs at various opportunities in 2024 (Exchange between the chairs in Dec 2024, to the board and further stakeholders in November 2024)
- The work and collaboration with activities related to Smart Grid PCI projects were taken over by the newly formed Task Force Investment, Funding & Finance in 2024.

## 2.7. TF FIN

### Work Area 1: Regulated revenues – Support the Commission on Anticipatory Investments

#### Description

Task 4 of the GAP required that the DSO Entity, with ACER and ENTSO-E, should support the EC in proposing guidance for conditions to approve anticipatory investments. As part of that support, TF FIN has been working on providing clarity about the definition of anticipatory investments to ensure the development of a common understanding between stakeholders. In addition, once that economic regulation and tariffs has been identified as a potential barrier for the delivery of investments being identified using a long-term forecasting horizon (i.e. an approach based on anticipatory investments), TF FIN has also been working on identifying potential ways of managing those barriers.

#### Deliverables

Since its creation in March 2024, TF FIN has work in four deliverables related with anticipatory investments:

- **April 2024:** development and delivery of a presentation in the Workshop organised by the European Commission on this topic. For this presentation TF FIN provided a definition of anticipatory investments together with a general framework to facilitate these investments;
- **June 2024:** development and delivery of a position on anticipatory investments for the Copenhagen forum in June 2024 where TF FIN built on the previous deliverable to identify some requirements to facilitate the delivery of an approach of network planning based on anticipatory investments;
- **July 2024:** response to the questionnaire circulated by the European Commission. This questionnaire aimed at providing a general vision of potential areas where potential European guidelines could be provided.
- **Started in 2024 and finalized in 2025:** Development of a reflection paper on anticipatory investment. This paper aims to identify potential barriers to the implementation of an approach based on anticipatory investment as well as some good practices that could be introduced in the regulatory framework to facilitate investments.

### Work Area 2: Funding and financial – funding and financial barriers and needs

#### Description

Task 9 in the GAP required that the Commission identifies tailored financing models for grid providers. To deliver this, the Commission relies on a number of sources including the work of the Investors Dialogue where DSO Entity is a member. To support this work, TF FIN is considering potential financing sources (i.e. public and private funds) and the potential barriers DSOs could be facing to access them.

#### Deliverables

As part of this work, TF FIN has provided four main deliverables:

- **July 2024:** development and implementation of a questionnaire to be circulated to the members of the DSO Entity. The objective of this questionnaire is to ensure the team has the right information to support the European Commission in the evaluation of financing models.
- **All year:** support the work in the Investor Dialogue. Members of TF FIN have provided input into the different discussions in the Investors Dialogue. This included interviews with consultants supporting the European Commission in this initiative.
- **June 2024:** development and delivery of presentation on Energy and Managing Authorities Network (EMA) meeting. This presentation covered our emerging thinking on funding needs for DSOs.
- **September 2024:** Support consultant working for the European Commission in estimating DSO's investment needs to delivery net zero requirements.

### Work Area 3: Funding and financial – knowledge sharing on funding

#### Description

The GAP requires that DSO Entity, with the EC, is to reinforce their support to the design and submission of PCI applications for smart grid projects (task 3.b) as well as to raise awareness on the available support to increase funding applications by DSOs (task 10a).

#### Deliverable

- **July 2024:** DSO Entity, together with E.DSO and with the support of Cedec, Eurelectric and GEODE, developed a workshop aimed at developing a better understanding among the DSOs about the process to be followed with PCI applications and the potential funding opportunities associated with these projects.

## 3. Reporting of horizontal tasks for 2024

### 3.1. Knowledge Sharing and Communication Strategy

In 2024, DSO Entity implemented its second annual Knowledge Sharing Strategy (KSS) and intensified the sharing of technical expertise, knowledge and good practices. With a three-track approach and a strong connection to its Communication Strategy, DSO Entity delivered on the Knowledge Sharing Strategy for 2024 (KSS24) by striving to increase the involvement of its members and build cooperation with external stakeholders.

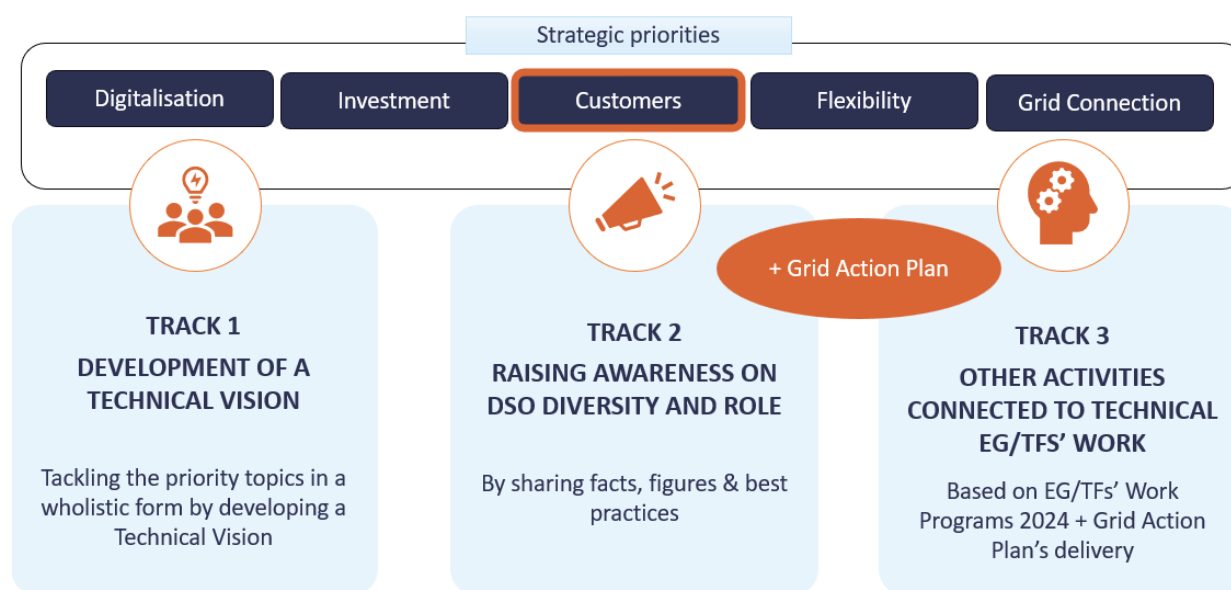


Figure: DSO Entity's three-track Knowledge Sharing Strategy 2024

#### KSS24: New approach and key contribution to the EU Grid Action Plan's delivery

The **KSS24 followed a new approach pursuing the delivery of three main tracks** encompassing the previously defined, but always-relevant, KSS23 strategic priorities (i.e. digitalization, investment, customers, flexibility and grid connection) under a common frame with more tangible objectives. **Another new feature was the consideration of DSO Entity's assignments mandated under the Grid Action Plan (GAP) for the KSS24 development.** Subsequently, and as part of its second and third tracks especially, DSO Entity worked to define and implement its KS activities with a view to supporting the European Commission in delivering the GAP's various Action Points by the 2025 Copenhagen Infrastructure Forum, with milestones already set for 2024 (for more details, see Section 3.2).

#### Growing importance and benefits of Knowledge Sharing and connection with Communication Strategy

**2024 marked an intensification of the collection and sharing of data, good practices and technical expertise on DSOs** which strongly contributed to raising awareness on the role and relevance of DSOs in the energy transition. DSO Entity is thus growing as a forum of expertise and knowledge on DSOs (ambition which will be pursued in the KSS25).

The KS work carried out in 2024 increasingly **demonstrated the benefits of this pillar for DSO members** as they can learn, exchange and share expertise, data and good practices on technical topics relevant for DSOs while gaining in parallel an increasing understanding of EU-level developments. The strong connection with the Communication Strategy ensured **a growing member outreach and involvement** by strengthening internal communications (i.e., a monthly newsletter, a new Radar News tool, and an extensive restructuring of the website), organising internal webinars that allowed all members to directly interact with DSO Entity's experts on ongoing technical work, launching campaigns (e.g. EU DSO map campaign starting in September) and assuring the presence of DSO Entity members and experts in different European events (e.g. High-level conference on grids under Hungary's Presidency in October).

Furthermore, KSS24 increased the **opportunities for DSO Entity to connect, exchange and share technical expertise and practices on distribution grids with external stakeholders** ensuring further awareness on the role and relevance of DSOs and cooperation to achieve the energy transition. This was done through event organisation and participation (e.g., European Commission's Fora<sup>7</sup>), as well as cooperation and dialogue with partners in relation to relevant workstreams (e.g., joint statements, recording video statements, joint events). DSO Entity also continued to reinforce its online presence by engaging in social media platforms and by providing more and more publicly accessible content on its website by also improving its functionalities to this end (new website to be ready by early 2025).

#### **Country Expert Group (CEG)'s pivotal role in delivering Knowledge Sharing Strategy 2024**

With one DSO representative for each country, the CEG constitutes a body of expertise and knowledge well-suited to **map Europe's current state of play, collect data and good practices on DSOs from all Member States**. In 2024 the CEG

- Oversaw the **development and launch of the EU DSO map** (incl. data collection) as one of the main KS milestone projects in 2024.
- Was in the **lead on the permitting topic**, supporting the delivery of the related Action Points 11 and 12 of the GAP; including activities related to enhancing public engagement as part of DSO Entity's involvement as signatory of the Pact for Engagement.
- Contributed to the webinar series aiming to **disseminate the main findings of DSO Entity's Grid Connection Paper**.
- **Supported the delivery of the GAP's Action Point 13 on supply chain**.

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<sup>7</sup> Participating and contribution in the Copenhagen Infrastructure Forum, the Florence Electricity Forum, the Dublin Citizens Forum.



## Reporting on KSS24 three core tracks

The blocks below provide a detailed overview per track of the deliverables achieved in 2024.

### TRACK 1: Development of Technical Vision



#### Track

**Objective:** Tackling the priority topics under a wholistic form by developing a Technical Vision.

The development of **DSO Entity's Technical Vision was the KSS24 flagship project** and was elaborated with the support and involvement of all EGs and TFs. DSO Entity was assisted by Compass Lexicon, an external consultant, that worked together with an ad-hoc group of experts.

#### Deliverable

- **(5 December) Technical Vision's Executive Summary:** The Technical Vision was launched during DSO Entity's Annual Event and provides the joint and common vision of European DSOs for the future of the EU's energy system through a customer-centric approach. It 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 on the EU's net-zero targets, and provides recommendations to ensure the right conditions are set.

### TRACK 2: Raising awareness on DSO role, relevance and diversity



#### Track

**Objective:** Sharing facts, figures and good practices on DSOs to increase the awareness on their role and relevance for the energy transition and their diversity in Europe.

The Country Expert Group played a key role in implementing Track 2 (see Figure).

#### Deliverables

- **(September) EU DSO map poster (phase 1):** The EU DSO map poster was developed within the CEG and displayed for the first time a set of data on DSOs on single chart as to shed light on their key role in reaching the Fit for 55 targets and reflect DSOs diversity. The second phase of the project will be carried out in 2025 to provide an online version of the map.
- **(12/04 and 15/11) Public webinar series on the Grid Connection Paper:** This webinar series aimed to disseminate the key findings of the Grid Connection Paper addressing (1) grid capacity challenge and (2) the digitalisation and streamlining of the grid connection requests (in cooperation with TF DESAP). It was part of DSO Entity's contribution to the Grid Action Plan's delivery sharing DSOs good practices in presence of the EC.
- **(Q3-Q4) Development of a Permitting Paper and contribution to the Pact for Engagement:** To deliver on the **Grid Action Plan's Action Points 11 and 12**, further work was conducted within the CEG to collect expertise and good practices on permitting procedures and on public engagement. It resulted in the **drafting of a Permitting Paper** (approved by the Board in December and to be published in January 2025) and **sharing of good practices and additional signatories from DSO members to the Pact** during the 2024 PCI Days.

- **(Q3-Q4) Support on the GAP's Action Point 13 on supply chain** by contributing to a survey aiming to collect information on supply chains in the EU-27 such as identifying critical components.
- **(Q3-Q4) Beyond planned KSS24:** DSO Entity went beyond the initial activities planned under KSS24 by notably **(1) organising joint informative event on grids** with ENTSO-E (25/09) and the other DSO associations (Q4: preparation for 15/01/25 event) targeting the Members of the European Parliament and their assistants; and **(2) signing joint statements** (e.g. 09/10: Joint Statement with a coalition of 16 other European cross-sectoral (energy) associations that collectively called for putting distribution grids at the center of the next EU agenda).

### TRACK 3: Other activities connected to the EG/TF technical work



#### Track

**Objective:** Delivering EG/TF knowledge-sharing activities as planned in EG/TF Work Programmes.

Track 3 was implemented within the different EG/TFs connected to their mandate, including the Grid Action Plan's delivery, as to further share their expertise and good practices.

#### Deliverables

- **(across 2024) Delivery of KS activities of EG/TF Work Programmes:** Organisation of internal and public webinars (e.g. Ask Me Anything), publication of reports and papers, and building of exchange and cooperation with main partners (European Commission, ACER, ENTSO-E) and other stakeholders. More details can be found in the dedicated Chapter 3.

## Reporting on Communication core activities

The last table below provides insights into the KPIs coming from the communication activities that were carried out in support of the KSS24 and to promote the work of the EGs and TFs.



Figure : DSO Entity communication main KPIs<sup>8</sup>

As shown in the Figure, DSO Entity's Communication Strategy aimed at integrating all pursued activities into the various communication channels to maximise the visibility of projects, documents and news. Beyond the macros reporting for the website, newsletter, and social media outreaches, it is important to focus on disseminating the main activities (e.g., Technical Vision, public consultations and core documents produced by EGs and TFs).

Regarding external contributions, DSO Entity representatives participated in a total of 82 events, of which 48 were stakeholder events where our members presented our priorities and main activities; 12 were organised by the Secretariat (e.g., Annual event, Annual Plan presentation, informative sessions on grids with decision-makers such as MEPs and webinars); 22 represent our participation in high-level events mainly organised by the European Commission and Council's presidencies (e.g., Fora, PCI Energy Days and EUSEW); and, lastly, 11 events in which DSO Entity's President Vincenzo Rainieri joined for high-level interventions.

In respect to public consultations, DSO Entity took part in the launch of three public consultations in cooperation with ENTSO-E (i.e. definition of the type and format of data, and the methodology for the analysis by transmission system operators and distribution system operators of the flexibility needs at

<sup>8</sup> These KPIs include the work of all DSO Entity's bodies, thus, resulting in higher KPI-numbers than shown in the overview of the EG/TFs in chapter 2.

national level and Cyber Risk Assessment Methodology). DSO Entity also provided seven replies to public consultations organized by the European Commission (e.g., to the targeted stakeholder consultation on the dedicated grid areas).

Lastly, DSO Entity published a total of 26 documents including reports, joint statements in cooperation with other relevant partners and stakeholders, and other projects (such as the EU DSO map), with 12 publicly available on the website as well as proposals for Network Codes and Implementing Acts and proposals for Methodologies.

## 3.2. The Grid Action Plan

The Grid Action Plan (COM/2023/757), presented in November 2023 by the European Commission, identified seven challenges faced by grids in delivering on the net-zero targets. The Communication further proposed 14 Actions Points that should support grids in overcoming such challenges to be implemented over the next 18-months. The text was a milestone for the recognition of grids, and especially of the distribution level, in reaching the European Union’s climate and green objectives.

DSO Entity appeared as key actor of the Action Plan, being directly responsible for the delivery of 7 out of 14 of the Action Points, often together with ENTSO-E, and in a supporting role for several others. While some Action Points could already be completed in 2024 the work of others will continue in 2025. The table below gives a concise overview of the work done in relation to the GAP. More details on the delivery for each action can be found in the reports of the different Expert Groups and Task Forces.

■ Tasks not directly assigned by DSO Entity in the Grid Action Plan.

✅ Fully delivered Action Point. Additional related activities might be considered in 2025.

Challenge	Action Point	Leading EG/TF	Delivered tasks and ongoing activities
<b>Challenge 2</b> <b>Improving long term grid planning for a higher share of RES and increased electrification:</b> 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.	<b>A3 (a)</b> ✅ Support DSO grid planning by mapping the existence and characteristics of DSO development plans and by improving best practices and recommendations	TF NP	<ul style="list-style-type: none"> <li>Internal webinar “Ask Me Anything on Task Force Ten Year Network Development Plans” (29/01/24) and stakeholder questionnaire (03/24)</li> <li>Publication of a report <a href="#">“DSO Entity’s identified good practices on Distribution Network Development Plans”</a> (06/24)</li> <li>Ongoing follow-up activities: exploring links between DNDP and anticipatory investments, improving accessibility of DNDPs.</li> </ul>
	<b>A3 (b)</b> ✅ Reinforce DSO Entity’s support to the design and submission of PCI applications or smart grid projects	TF FIN	<ul style="list-style-type: none"> <li>Workshop on <a href="#">“PCIs for DSOs – Good practices and potential barriers”</a> (04/07/24)</li> <li>Ongoing preparation of a feedback to the European Commission’s (EC)</li> </ul>

### Challenge 3

#### **Introducing regulatory incentives 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*

#### **A4**

*(With ACER and ENTSO-E)* Support the EC in proposing guidance for conditions to approve anticipatory investments

TF FIN

- consultations on CEF-Funding and MFF*
- Input provided at the EC's workshops (28/04/24 – 11/12/24)
  - Input provided at the Copenhagen forum (27-28/06/24)
  - Feedback provided to the EC's consultation "Anticipatory investments for grid buildout" (09/24)
  - Publication of a paper "[Anticipatory Investments – An initial Regulatory Discussion](#)" (24/02/25)

### Challenge 4

#### **Incentivising a better usage of the grids:**

*More transparency on grid hosting capacities (capacity maps, frameworks for non-firm connection agreements etc.). Insufficient smart grids incentives (e.g. insufficient OPEX compensation; rising digitalisation costs, data processing, flexibility procurement)*

#### **A6 (a)**

*(with ENTSO-E)* Agree on harmonized definitions for available grid hosting capacity for SOs and set a pan-EU overview

EG DF

- Public Webinar "[Delivering the Fit for 55: How to face the grid capacity challenges?](#)" (12/04/24).
- *Ongoing work beyond 2024 on indicators and existing maps to develop a "capacity-pedia"*

#### **A6 (b)**

*(with ENTSO-E)* Issue guidance and recommendations to digitalise and streamline procedures for grid connection requests

TF  
DESAP

- Public Webinar "[Connecting the surge of renewables to the distribution grid: How can digitalisation contribute to support DSOs?](#)" (15/11/24)
- *Ongoing work in TF DESAP beyond 2024*

#### **A7**

*(with ENTSO-E)* DSO Entity, with ENTSO-E, to promote smart grid uptake, network efficiency & innovative technologies, and to update the Technopedia

TF  
DESAP

- Publication of a Joint Statement "[Implementation of Action 7 in the EU Action Plan for Grids - DSO/TSO Technopedia](#)" between DSO Entity and ENTSO-E (18/12/24)
- Public webinar with ENTSO-E "DSO/TSO Technopedia Implementation" (04/03/25)
- *Ongoing exchanges with with ENTSO-E, Current, Eurelectric and E.DSO*

#### **A8 ■**

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

TF FIN

- Feedback provided to ACER's consultation on tariffs (09/24)
- *Ongoing preparation of a paper on tariffs (planned for 2025)*

### 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

### 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

### 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 regarding reliance on high-risk

#### A9 ■

EC to identify tailored financing models and strengthen dialogue to address obstacles to private financing (Investors Dialogue - ID)

TF FIN

- Presentation on DSO funding needs at the Investors Dialogue (06/03/24)
- Presentation of the outcome of the ID-E WG Transmission and Distribution at the 3rd plenary meeting (02/25)
- *Ongoing preparation of a paper and an event related to financing (planned for Q2 2025)*

#### A10 (a) ✓

Raise awareness on the available options to increase funding applications for DSOs

TF FIN

- Refer to Action Point 3 (b) above
- Publication of a paper on EU-Funding based of an internal survey (02/25).

#### A10 (b) ✓ ■

Kick-start with dedicated high-level meeting with Member States on DSOs funding and support in raising awareness

- Input provided at the EC and Energy and Managing Authorities (EMA) workshop on increasing funding opportunities for DSOs (13/07/24)

#### A11 ✓

EC to support permitting acceleration, among others EC will support application of permitting rules in RED/emergency regulation (overriding public interest) as regards DSOs

CEG

- Publication of a paper "[Guidance on EU permitting-related provisions on grid and renewable energy projects](#)" (09/01/25)
- *Ongoing exchanges with DG ENER, including an event of Stakeholder Event on Speeding up Permit-granting Procedures by DG ENVI*

#### A12 ✓

DSO Entity with ACER, ENTSO-E and RGI to sign the Pact for Engagement to reinforce stakeholder engagement

CEG

- Participation to the signing ceremony of the Pact for engagement at the PCI Days (04/11/24)
- Launch of a call for interest for additional signatories among DSO Entity's members ahead of the PCI Days
- Involvement in Stakeholder meetings (07-11/24) for the development of a Guiding Principles Document and beyond

#### A13 (a)

(With ENTSO-E) DSO Entity, with ENTSO-E, to collaborate with technology providers to develop standard technology specifications.

Multiple

- Regular meetings between DSO Entity, ENTSO-E, Europacable and T&D Europe at both Secretariat and experts' levels.
- Publication of a "[Joint Commitment for Resilient European Manufacturing](#)" (04/12/24)

#### A13 (b)

Develop mechanisms for providing increased visibility to manufacturers into their upcoming procurement plans

- Circulation of a survey among DSO Entity members about their needs, including on procurement and visibility. Publication of the findings planned for Q2.

*third country suppliers for critical components, insufficient access to raw materials and staff shortages aggravate the situation.*

for equipment and systems on all voltage levels

- Internal Webinar on the outcome of the survey to its respondents and EG/TFs members (25/10/24)

## The Grid Action Plan

The **Grid Action Plan (COM/2023/757)**, presented in November 2023 by the European Commission, identified seven challenges faced by grids in delivering on the net-zero targets. The Communication further proposed **14 Actions Points** that should support grids in overcoming such challenges to be implemented over the next 18-months. The text was a milestone for the recognition of grids, and especially of the distribution level, in reaching the European Union's climate and green objectives.

**DSO Entity** appeared as key actor of the Action Plan, being directly responsible for the **delivery of 7 out of 14** of the Action Points, often together with ENTSO-E, and in a supporting role for several others. While some Action Points could already be completed in 2024 the work of others will continue in 2025. The table below gives a concise overview of the work done in relation to the GAP. More details on the delivery for each action can be found in the reports of the different Expert Groups and Task Forces.



### 3.3. Gas Integration

In its recast of the Regulation on the internal markets for renewable and natural gases and for hydrogen the EC proposed the integration of gas DSOs within the current DSO Entity's structure. The final text of the Regulation (EU 2024/1789), adopted on 13 June 2024, concretized the integration and cooperation of gas DSOs within DSO Entity, and prescribed that “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 (EU) 2024/1789).

The Regulation foresaw that, within one year after its entry into force, the revised Statutes, Rules of Procedure, and Financing Rules would have to be submitted to the EC. In 2024, the first efforts in fulfilling this new mandate were taken which proved to be time- and resource-intensive as the integration necessitates a substantial overhaul of DSO Entity's structure and governance. The process required new efforts within DSO Entity's Secretariat and further required closer cooperation with existing DSO Entity members, but also with the four European gas associations (Eurogas, GD4S, Geode, and Cedec) to ensure a mutually acceptable and welcomed outcome.

Already prior to the adoption of the Gas Regulation, DSO Entity's Board started discussing the upcoming integration of gas and hydrogen DSOs and approved the project structure to prepare this. A temporary working structure was established to guide the integration and this included defining clear rules of engagement, the setting up of joint Task Forces, a joint Sounding Committee and the creation of a timeline. Stakeholder engagement was prioritized to ensure fair representation for both electricity and gas members, fostering balanced decision-making.

From Q2 onwards, the Task Forces, composed of members of DSO Entity and experts from the four associations representing gas DSOs worked jointly to prepare proposals and options. The Sounding Committee served as a joint platform for reflection and advice at Board level. The aim of all experts involved on the topic during 2024 was to prepare the launch of the integration in Q4 2025. The finalization of the integration process will continue in 2025.



## 4. Summary

In 2024 DSO Entity continued the delivery of its enlarged mandate in the three pillars<sup>9</sup> and, additionally, developed three major projects: (1) The delivery of the assigned tasks through the Grid Action Plan, (2) the development of a DSO Entity 's Technical Vision as a flagship project of the Knowledge Sharing Strategy 2024 and (3) the facilitation of the integration of gas and hydrogen DSOs into DSO Entity.

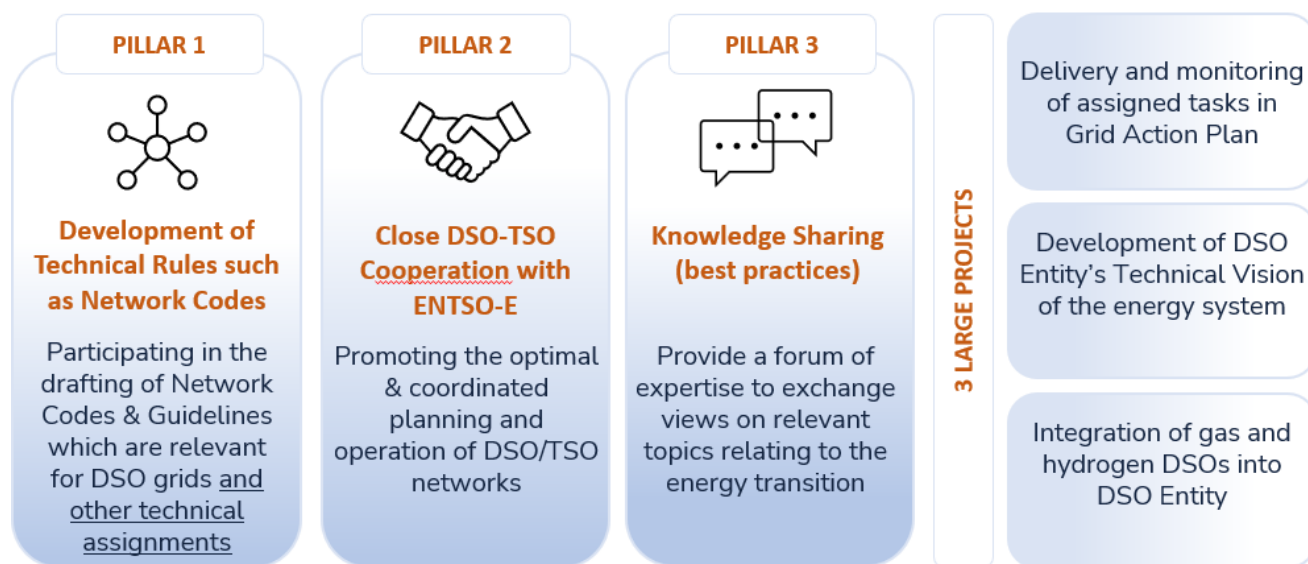


Figure: Delivered work priorities 2024: three pillars and three projects

Overview of core deliverables in 2024 in the three pillars	
<b>Pillar1:</b>	Regarding the technical activities, the EGs and TFs continued to work on the finalisation of a draft Network Code on Demand Response and followed up on further developments by ACER and the EC in this area (EG DF); the implementation of the Network Code Cybersecurity by drafting Terms, Conditions and Methodologies with ENTSO-E (EG CS), the active engagement in amending the Grid Connection Codes (EG ENC), the delivery - via the Joint Working Group with ENTSO-E, of guidelines for the Member States for their submission related to reference models for accessing metering data - draft Implementing Acts on data interoperability for customer switching and demand response (EG DI), as well as the development of the Digital Twin and Smart Grid Indicators (TF DESAP). Exchanging on Distribution Network Development Plans intensified in 2024 with deliverables from the Copenhagen Forum but also in the Grid Action Plan including concrete deliverables for DSO Entity

<sup>9</sup> To make DSO Entity's mandated tasks (Art. 55 EU/2029/943) easier understandable they are usually summarized in three broader pillars. For a detailed overview how the mandated tasks in Art. 55 were delivered by DSO Entity in 2024, please have a look into the Annex.

	(TF TYNDP). As consequence of the Grid Action Plan a new Task Force was created to ensure the delivery of specific expertise in the area of financing, funding and investments (TF FIN). Also, a legal task force (TF Legal) was created due to the need of legal expertise to support the EG/TFs in their work.
<b>Pillar 2:</b>	The close interaction with ENTSO-E continued in all the established workstreams and intensified in the context of the delivery of new tasks mandated through the Grid Action Plan, but also the Electricity Market Design (Flexibility Methodology). Throughout the year eight joint working groups and dedicated stakeholder groups were established and the cooperation among the representatives of both associations' Board of Directors intensified, focusing on the progress of the Joint Work Program.
<b>Pillar 3</b>	Knowledge Sharing activities continued within the EGs and TFs entailing more opportunities for members to exchange but also to inform and discuss with external stakeholders. Especially, the project of the development of a Technical Vision as a flagship project of the Knowledge Sharing Strategy 2024 helped to raise awareness for the key role of DSOs in empowering customers and being technical enablers of the transition. The development and launch of the EU DSO Map (incl. data collection) delivered by the CEG was another milestone project of Knowledge sharing in 2024.

While two of the above-mentioned projects - i.e., the Grid Action Plan and the Technical Vision – were 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. For this specific project as of Q2 dedicated Task Forces that included current DSO Entity’s members and representatives of the four European gas associations were established to ensure a mutually acceptable and welcomed outcome. The finalization of the integration process will continue in 2025.

In 2024, DSO Entity, together with its 830 diverse and engaged members and in close cooperation with ENTSO-E, continued 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, keeping the lights on for 450 million European citizens.

## List of abbreviations

ACER	The European Union Agency for the Cooperation of Energy Regulators
CAPEX	Capital Expenditures
CEER	The Council of European Energy Regulators
CEG	Country Expert Group
DESAP	Digitalisation of the Energy System: Action Plan
DSO	Distribution System Operator
DT	Digital Twins
EC	European Commission
EG CS	Expert Group Cybersecurity
EG DF	Expert Group Distributed Flexibility
EG DI	Expert Group Data Interoperability
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
ESC	European Stakeholders Committee
FF55	Fit for 55 package
F-gases	Fluorinated Greenhouse gases
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
SEEG	Smart Energy Expert Group
SGI	Smart Grid Indicators
SOG	System Operation Guideline
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

## Annex: Overview of DSO Entity's mandated tasks and its delivery in the AR24

### (A) Mandated tasks from legislative acts

#### 1. Electricity Market Regulation (2019/943/EU)

Article 55: Tasks of DSO Entity	
Legal text	Reporting
<b>(1) The tasks of the DSO Entity shall be the following</b>	
(a) Promoting operation and planning of DSO in coordination with the operation and planning of transmission networks;	<ul style="list-style-type: none"> <li>- Chapter 2.5, TF TYNDP (Work Area 2): Paper on identified good practices on Distribution Network Development Plans (06/24).</li> <li>- Chapter 3.2, Grid Action Plan (Action Point 3): Report on DNDP (06/24).</li> </ul>
(b) facilitating the integration of RES, distributed generation and other resources embedded in the distribution network such as energy storage;	<ul style="list-style-type: none"> <li>- Chapter 2, EG TF communication and sharing of good practices; such as Chapters 2.3 and 2.4, EG DI and EG ENC (respective Work Areas 5).</li> <li>- Chapter 3.1, Knowledge Sharing (Track 2): Dissemination of the findings of the report "DSOs Fit for 55" (11/23) with a public webinar on grid connection challenges in cooperation with TF DESAP (11/24); as well as the development of a Permitting Paper (across 2024; publication in 01/25).</li> </ul>
(c) facilitating demand side flexibility and response and distribution grid users' access to markets	<ul style="list-style-type: none"> <li>- Chapter 2.2, EG DF (all Work Areas): Organisation of and participation in webinars and technical workshops on flexibility (Q3-Q4 2024).</li> <li>- Chapter 3.1, Knowledge Sharing (Track 2): Dissemination of the findings of the report "DSOs Fit for 55" (11/23) with a public webinar on grid capacity challenge (04/24).</li> </ul>

<p>(d) contributing to the digitalisation of distribution systems including deployment of smart grids and intelligent metering systems;</p>	<ul style="list-style-type: none"> <li>- Chapter 2.3, EG DI (Work Areas 3 and 4): Reflection papers on submetering and on data interoperability of energy sharing.</li> <li>- Chapter 2.5, TF DESAP (all Work Areas): Report on key principles on smart grid indicators (06/24); work on indicative list of input and output indicators (started in 06/24; ongoing), paper on joint DSO/TSO challenges and opportunities on digital twins (started 2024; ongoing).</li> <li>- Chapter 3.2, Grid Action Plan (Action Point 7): Development of the concept for the Technopedia (started 2024, ongoing).</li> </ul>
<p>(e) supporting the development of data management, cyber security and data protection in cooperation with relevant authorities and regulated entities;</p>	<ul style="list-style-type: none"> <li>- Chapter 2.1, EG CS (all Work Areas): several publications including Electricity Cybersecurity Impact Index (10/24); Provisional List of Union-Wide High Impact and Critical Impact Processes (12/24); Public consultation on Cyber Risk Assessment Methodology (11/24); webinars; training on business continuity management.</li> <li>- Chapter 2.3, EG DI (Work Area 1): Guidance for the mapping of national practices (05/24); submission of the draft Implementing Act on customer switching (10/24).</li> </ul>
<p>(f) participating in the development of network codes which are relevant to the operation and planning of distribution grids and the coordinated operation of the transmission networks and distribution networks pursuant to Article 59.</p>	<ul style="list-style-type: none"> <li>- Chapter 2.1, EG CS (Work Area 1): Entry into force of Network Code on Cybersecurity (06/24).</li> <li>- Chapter 2.2, EG DF (Work Area 1): Submission of the joint proposal with ENTSO-E of Network Code on Demand Response (05/24).</li> </ul>

<b>(2) In addition the EU DSO Entity shall:</b>	
(a) cooperate with the ENTSO for Electricity on the monitoring of implementation of the network codes and guidelines	- Chapter 2.1, EG CS (Work Area 2) on the implementation of the Network Code on Cybersecurity.
(b) cooperate with the ENTSO for Electricity and adopt best practices on the coordinated operation and planning of transmission and distribution systems including issues such as <b>exchange of data between operators and coordination of distributed energy resources</b>	<p>- Chapter 2.3, EG DI (Work Area 1): Involvement in the Joint Working Group with development of joint initiatives, such as the common repository (started in 2024; ongoing).</p> <p>- Chapter 2.6, TF TYNDP (Work Areas 1 and 2): Involvement in ENTSO-E's TYNDP process, including the participation in 2024 public consultation; and report on DNDPs (06/24).</p>
(c) work on identifying <b>best practices</b> on the areas identified in paragraph 1 and for the introduction of energy efficiency improvements in the distribution network;	- Chapter 3.1, Knowledge Sharing (Tracks 1 and 3): Technical Vision for European DSOs (12/24) and EG/TF Knowledge Sharing and communication (more in Chapter 2, EG-TF reporting, Work Areas 4-5).
(d) adopt an annual work programme and an annual report;	<p>- Publication of 2025 Annual Work Programme (01/24).</p> <p>- Adoption of 2024 Annual Report.</p>
(e) operate in accordance with competition law and ensure neutrality.	- Compliance.
<b>Article 60: Amendment of Network Codes (DSO Entity related)</b>	
<b>Legal text</b>	<b>Reporting</b>
(2) Persons who are likely to have an interest in any network code adopted under Article 59, including the ENTSO for Electricity, the EU DSO entity, regulatory authorities, transmission system operators, distribution system operators, system users and consumers, may propose draft amendments	- Chapter 2.4, EG ENC (all Work Areas): Reactions (i.e., notes and letters) to the draft amendment of the Network Codes on Grid Connection, i.e; Requirements for Generators, High voltage direct current systems and direct current-connected power park modules (across 2024).

to that network code to ACER. ACER may also propose amendments on its own initiative.	
(3) ACER may make reasoned proposals to the Commission for amendments, explaining how such proposals are consistent with the objectives of the network codes set out in Article 59(3) of this Regulation. Where it considers an amendment proposal to be admissible and where it proposes amendments on its own initiative, ACER shall consult all stakeholders in accordance with Article 14 of Regulation (EU) 2019/942.	- Chapter 2.4, EG ENC (Work Areas 3 and 5): Interaction with the European Stakeholder Committees; continued and enhanced collaboration with relevant stakeholders.

*2. Electricity Market Design reform; Regulation (EU/2024/1747) amending Regulation (2019/943/EU)*

<b>Article 19e: Assessment of flexibility needs (FNA)</b>	
<b>Legal text</b>	<b>Reporting</b>
<p>(4) The ENTSO for Electricity and the EU DSO entity shall coordinate the work of transmission system operators and distribution system operators as regards the data and analyses to be provided in accordance with paragraph 3. In particular, they shall:</p> <p>(a) define the type and format of data that transmission system operators and distribution system operators are to provide to the regulatory authorities or another authority or entity designated pursuant to paragraph 1;</p> <p>(b) develop a methodology for the analysis by transmission system operators and distribution system operators of the flexibility needs, taking into account at least:</p> <p>(i) all available sources of flexibility in a cost-efficient manner in the different timeframes, including in other Member States;</p>	<p>- Chapter 2.2, EG DF (Work Areas 2 and 4): Assessment of the mandated task (2024); organisation of four stakeholder sessions (Q3 and Q4 2024); launch of a public consultation on the draft FNA methodology (11-12/24).</p>



<p>(ii) planned investment in interconnection and flexibility at transmission and distribution level; and</p> <p>(iii) the need to decarbonise the electricity system in order to meet the Union's 2030 targets for energy and climate, as defined in Article 2, point (11), of Regulation (EU) 2018/1999, and its 2050 climate neutrality objective laid down in Article 2 of Regulation (EU) 2021/1119, in compliance with the Paris Agreement adopted under the United Nations Framework Convention on Climate Change (*).</p> <p>The methodology referred to in point (b) of the first subparagraph shall contain guiding criteria on how to assess the capability of the different sources of flexibility to cover the flexibility needs.</p>	
<p>(5) The ENTSO for Electricity and the EU DSO entity shall cooperate closely with each other as regards the coordination of transmission system operators and distribution system operators as regards the provision of data and analyses pursuant to paragraph 4.</p>	<p>- Chapter 2.2, EG DF (Work Area 4): Establishment of a joint task force with ENTSO-E to prepare the draft methodology for FNA (04/24).</p>
<p>(6) By 17 April 2025, the ENTSO for Electricity and the EU DSO entity shall jointly submit to ACER a proposal regarding the type of data and format to be submitted to a regulatory authority or another authority or entity designated pursuant to paragraph 1, and the methodology for the analysis of the flexibility needs referred to in paragraph 4. Within three months of receipt of the proposal, ACER shall either approve the proposal or amend it. In the latter case, ACER shall consult the Electricity Coordination Group, the ENTSO for Electricity and the EU DSO entity before adopting the amendments. The adopted proposal shall be published on ACER's website.</p>	<p>- Chapter 2.2, EG DF (Work Area 4): All deliverables (across 2024; ongoing).</p>

3. *Implementing Regulation (2023/1162/EU) on interoperability requirements and non-discriminatory and transparent procedures for access to metering and consumption data*

<b>Article 11: Cooperation on data transparency between the EU DSO entity and the ENTSO for Electricity</b>	
<b>Legal text</b>	<b>Reporting</b>
(1) The cooperation foreseen between the European Network of Transmission System Operators for Electricity (the 'ENTSO for Electricity') and the European Entity for Distribution System Operators (the 'EU DSO entity'), in Article 30(1) points (g) and (k) and Article 55(1) points (d) and (e) of the Regulation (EU) 2019/943, may take the form of a Joint Working Group setting up a process to collect and publish national practices provided by the Member States. ENTSO for Electricity and EU DSO entity may in that way also cooperate to advise and support the Commission in monitoring the implementation of, and further developing the implementing acts on data interoperability under Article 24(2) of Directive (EU) 2019/944.	- Chapter 2.3, EG DI (Work Area 1): All deliverables from the Joint Working Group and its three Task Forces (across 2024).
(2) While preparing their advice and undertaking their supporting activities to the Commission, the ENTSO for Electricity and EU DSO entity cooperate closely with representatives of national regulatory authorities, competent authorities and regulated entities with institutional roles at national level regarding the right to access to metering and consumption data, as well as with all relevant stakeholders, including consumer associations, electricity retailers, European standardisation organisations, service and technology providers, and equipment and component manufacturers.	
<b>Article 12: Tasks under the EU DSO entity and ENTSO for Electricity cooperation on data transparency</b>	
<b>Legal text</b>	<b>Reporting</b>
<b>(1) In order to ensure transparency of access to data across the EU, the main tasks that ENTSO for Electricity and the EU DSO entity perform under their cooperation on data transparency shall include</b>	

(a) developing guidance to assist Member States in the reporting of national practices as set out in Article 13;	- Chapter 2.3, EG DI (Work Area 1): Publication of Guidance for the Mapping of National Practices (05/24).
(b) collecting the reports of national practices provided by Member States regarding the implementation of the reference model, as set out in Article 10;	- Chapter 2.3, EG DI (Work Area 1): Start of the work in Task Force 3 of the Joint Working Group (02/24; ongoing).
(c) publishing the reports of national practices in a publicly available repository which shall be kept up to date.	- Chapter 2.3, EG DI (Work Area 1): Development of a common repository (across 2024; ongoing with procurement process expected to start in Q1 2025).
(2) The ENTSO for Electricity and the EU DSO entity may also cooperate in assisting the Commission, following the process set out in paragraph 2 of Article 11, in the monitoring of the implementation of the reference model included in this Regulation and its further development as a result of regulatory, market or technology changes, and support the Commission, upon its request, in developing, as part of future implementing acts, interoperability requirements and nondiscriminatory and transparent procedures for access to data required for customer switching, demand response, and other services referred to in Article 23(1) of Directive (EU) 2019/944.	- Chapter 2.3, EG DI (Work Area 1): Draft of Implementing Act on Customer Switching submitted to the European Commission (10/24).
<b>Article 13: Guidance for the reporting of national practices</b>	
<b>Legal text</b>	<b>Reporting</b>
No later than on 5 July 2024, the Commission shall develop and make publicly available, assisted by the ENTSO for Electricity and the EU DSO entity, a guidance on the reporting of national practices.	- Chapter 2.3, EG DI (Work Area 1): Publication of Guidance for the Mapping of National Practices (05/24).

<b>Article 39: DSO Entity for gas and hydrogen DSOs</b>	
<b>Legal text</b>	<b>Reporting</b>
<p>Distribution system operators operating a natural gas system shall and hydrogen distribution network operators operating a hydrogen network may cooperate at Union level through the EU DSO entity, in order to promote the completion and proper functioning of the internal market for natural gas, cooperate in the development of the hydrogen market and promote optimal management and a coordinated operation of distribution and transmission systems.</p> <p>Registered members may participate in the EU DSO entity directly or be represented by a national association designated by a Member State or by a Union-level association.</p> <p>The costs related to the activities of the EU DSO entity shall be borne by the distribution system operators and hydrogen distribution network operators that are registered members and shall be taken into account in the calculation of tariffs. Regulatory authorities shall approve costs provided that they are reasonable and proportionate and provide reasons where they are not approved.</p>	<p>- Chapter 3.3, Gas Integration: See reporting of Article 40 for work undertaken by DSO Entity.</p>
<b>Article 40: Changes to the principal rules and procedures for DSO Entity</b>	
<p>(1) The principal rules and procedures for the EU DSO entity pursuant to Article 54 of Regulation (EU) 2019/943 shall also apply to distribution system operators operating a natural gas system and hydrogen distribution network operators.</p> <p>(2) The Strategic Advisory Group referred to in Article 54(2), point (f), of Regulation (EU) 2019/943 shall also consist of representatives of associations representing European distribution system operators operating a natural gas system or European hydrogen distribution network operators.</p>	<p>- Chapter 3.3, Gas Integration: The setting up of joint task forces and a joint Sounding Committee; the creation of a timeline; the engagement of stakeholders to ensure fair representation of both electricity and gas members including cooperation with the four European gas DSO associations (across 2024); and preparation of proposals and options for governance (started in Q2 2024; ongoing).</p>

<p>(3) By 5 August 2025, the EU DSO entity shall submit to the Commission and to ACER draft updated statutes, including a code of conduct, a list of registered members, draft updated rules of procedure, including rules of procedure on the consultation with the ENTSO for Electricity, the ENTSO for Gas and other stakeholders, and draft updated financing rules. The draft updated rules of procedure of the 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.</p> <p>(4) Within four months of receipt of the documents submitted pursuant to paragraph 3, ACER shall provide the Commission with its opinion, after consulting organisations representing all stakeholders, in particular distribution system users, including customers.</p> <p>(5) Within three months of receipt of ACER's opinion, the Commission shall issue an opinion on the documents submitted pursuant to paragraph 3, taking into account ACER's opinion referred to in paragraph 4.</p> <p>(6) Within three months of receipt of the Commission's positive opinion, the distribution system operators shall adopt and publish the EU DSO's updated statutes, rules of procedure and financing rules.</p> <p>(7) The documents referred to in paragraph 3 shall be submitted to the Commission and to ACER where there are changes thereto or upon the reasoned request of either of them. The Commission and ACER may issue an opinion in accordance with the process laid down in paragraphs 3, 4 and 5.</p>	
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**(B) List of non-legislative acts with additional assignments**

<b>Assigned tasks based on non-legislative acts</b>	
<b>Non-legislative act</b>	<b>Reporting</b>
EU Grid Action Plan (COM 2023/757/EU)	- Chapter 3.2 for a comprehensive overview of the delivery of the Action Points in the Grid Action Plan (across 2024).
Assignments from Copenhagen Forum Conclusions	<p>- Chapters 2.5, TF DESAP (Work Areas 2 and 3): Report on key principles on smart grid indicators (06/24), and indicative list of input and output (started 2024; ongoing).</p> <p>- Chapter 2.6, TF TYNDP (Work Area 2): Paper on identified good practices on Distribution Network Development Plans (06/24).</p>
EU Action Plan on Digitalising the energy system (COM 2022/552/EU)	- Chapter 2.5, TF DESAP (all Work Areas): Deliverables such as Paper on joint DSO/TSO Challenges and opportunities of Digital Twins; internal paper on challenges and opportunities related to present and future needs of EU the electricity system.

## Broad overview of DSO Entity's mandated tasks in legislative and non-legislative acts.

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 &amp; 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 &amp; 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