ENTSO-E
Annual Work Programme

2026 Edition – ENTSO-E's Work on Legal Mandates

entsoe

Mission Statement

ENTSO-E, the European Network of Transmission System Operators for Electricity, is the association of the European TSOs. The 40 member TSOs, representing 36 countries, are responsible for the secure and coordinated operation of Europe's electricity system, the largest interconnected electrical grid in the world.

Before ENTSO-E was established in 2009, there was a long history of cooperation among European transmission operators, dating back to the creation of the electrical synchronous areas (SAs) and interconnections, which were established in the 1950s. In its present form, ENTSO-E was founded to fulfil the common mission of the European TSO community: to power our society. At its core, European consumers rely on a secure and efficient electricity system.

Our electricity transmission grid, and its secure operation, is the backbone of the power system, thereby supporting the vitality of our society.

ENTSO-E was created to ensure the efficiency and security of the pan-European interconnected power system across all time frames within the internal energy market and its extension to interconnected countries.

ENTSO-E is working to secure a carbon-neutral future. The transition is a shared political objective throughout the continent and necessitates a much more electrified economy, where sustainable, efficient, and secure electricity becomes even more important. Our Vision: "a power system for a carbon-neutral Europe"* shows that this is within our reach, but additional work is necessary to make it a reality. In its Strategic Roadmap, presented in 2024, ENTSO-E organised its activities around two interlinked pillars, reflecting this dual role:

- "Prepare for the future" to organise a power system for a carbon-neutral Europe; and
- "Manage the present" to ensure a secure and efficient power system for Europe.

ENTSO-E is ready to meet the ambitions of net zero, address the challenges of today, and anticipate those of the future for the benefit of consumers by working together with all stakeholders and policymakers.

* https://vision.entsoe.eu/

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Foreword

The energy transition is essential for the security and competitiveness of Europe. Energy is a strategic priority, and deeper electrification is the basis of a low-carbon economy, placing new demands on the power system. At the heart of this transformation lies a simple truth: Europe's energy transition depends on the electricity grid. A future-ready power transmission system will enable the EU to meet its climate targets, ensure energy security, and stay competitive.

In response, the EU has launched a new generation of policy initiatives to accelerate delivery. The Clean Industrial Deal and Grid Action Plan lay the foundation for action by streamlining permitting processes, reforming network charges, improving financing, and enabling flexibility. The upcoming European Grid Package (2026) will build on this progress. ENTSO-E and its members, Europe's electricity transmission system operators (TSOs), are at the heart of this transformation. Our role is to ensure that the grid evolves in line with policy objectives, market developments, and societal needs, at both the European and national levels, while maintaining the reliability and affordability Europeans rely on.

The ENTSO-E Annual Work Programme (AWP) 2026 is a response to that call. ENTSO-E's Strategic Roadmap recognises that a carbon-neutral, secure, and affordable electricity system depends on a future-ready transmission power system, and the AWP 2026 translates this vision into delivery. It outlines the Association's mandates and strategic activities for the coming year and turns objectives into tasks that underpin progress.

Grid Infrastructure: Planning, Financing, Permitting, Building

AWP 2026 reinforces ENTSO-E's core mission: enabling a robust and interconnected grid. This includes delivering the Ten-Year Network Development Plan (TYNDP 2026), which identifies grid investment and development priorities aligned with climate and energy targets. Grid development must be anticipatory. By 2040, Europe will need 108 GW of new cross-border capacity, but only 80 GW is currently in development. This shortfall risks raising electricity costs, undermining reliability, and delaying electrification.

AWP 2026 contributes to bridging this gap by supporting the EU Grid Action Plan, including financing, and informing the forthcoming European Grids Package. To address industrial challenges, AWP 2026 advances joint efforts with the EU DSO Entity, Europacable, and T&D Europe to strengthen European supply chains. This includes identifying bottlenecks, establishing common design and procurement principles, providing long-term visibility, and addressing skill gaps. These actions help ensure that infrastructure delivery keeps pace with energy transition needs at reasonable costs.

System Flexibility and Resource Adequacy: Conditions for Success

Flexibility is essential to an energy system that increasingly relies on variable renewable sources. As supply and demand patterns shift, flexibility supports system adequacy and operational stability. AWP 2026 advances this by supporting TSOs' contributions to the flexibility needs assessments, the European Resource Adequacy Assessment (ERAA), and the publication of Seasonal Outlooks – critical tools for anticipating risks and maintaining the reliability of the transmission system.

The programme also supports work on market mechanisms that incentivise flexibility, incorporating lessons from major system events, such as the recent grid incidents. By improving forecasting and operational coordination, ENTSO-E and its members are enabling the integration of demand-side flexibility, storage, and new technologies. Flexibility is also an investment multiplier – unlocking value across sectors, reducing curtailment, and lowering system costs. AWP 2026 ensures this is reflected in both planning tools and market design.

Security: Resilience of Critical Infrastructure

Energy security has become a clear pillar of Europe's strategic agenda – with its joint dimensions of system security, physical assets security, and cybersecurity.

Recent events have demonstrated the importance of TSOs' preparedness and strong capacity to respond. ENTSO-E will continue working with members and regional partners to enhance coordination, accelerate learning, and strengthen resilience. This includes advancing initiatives that for secure system operation, better risk anticipation, and monitor operational practices.

The Baltic Synchronisation shows what forward planning can achieve: stable frequency control, stronger regional security, and greater integration of renewables. In this context, cybersecurity, physical security, and security of supply must now be embedded in both regulation and planning. AWP 2026 prioritises implementing the Network Code on Cybersecurity (NCCS), including tasks on Information Flows, Cyber-attacks and Crisis Management, Common Electricity Cybersecurity Framework, and cross-border coordination. It also expands grid resilience measures through the next-generation European Awareness System (EAS), making resilience and security practical workstreams for 2026.

Also in Focus: ENTSO-E's Broader Strategic Agenda

In addition to its top priorities, AWP 2026 advances work across a broader strategic agenda. This includes supporting market design reform for both onshore and offshore systems, continuing the evolution of network codes (NCs), and deepening regional integration in South-Eastern and Eastern Europe, as well as a better technical relationship with UK TSOs.

It also strengthens operational readiness through improved coordination, forecasting, and grid modelling; promotes joint energy system planning across transmission and distribution and the electricity, gas, and hydrogen sectors; and advances data transparency and digitalisation, for example, through resources such as Technopedia. Innovation remains a cross-cutting priority, with efforts to implement the RDI Roadmap, grow the Innovation Database, and embed innovation into system planning and advocacy.

Conclusion: Delivering on Commitments

The 2026 edition of the ENTSO-E AWP aligns technical workstreams with policy goals, legal mandates, and real-world grid needs. It is a delivery tool that plays a vital role in translating ambition into action. From grid expansion (TYNDP 2026) and innovation (RDI Roadmap monitoring) to digitalisation (digital twin roadmap) and system operation (probabilistic risk assessment, coordinating the implementation of the Network Code on Emergency and Restoration (NC ER)), the AWP 2026 ensures that ENTSO-E's strategy is delivered through concrete measures and actions.

Introduction

General Introduction

Electricity is the lifeblood of our society. From households to industries, from hospitals to digital services, European citizens and businesses rely on the continuous and reliable flow of electricity to function. The power grid is more than just infrastructure – it is the backbone of our energy system, and a pillar of European competitiveness, ensuring energy security and resilience in an increasingly complex world.

Recent events have underscored the critical role of ENTSO-E and the importance of transmission network and system operations that are secure, well-developed, and interconnected. ENTSO-E and TSOs successfully synchronised Ukraine, Moldova, and the Baltic countries with the continental grids. However, the Russian invasion of Ukraine and the ongoing attacks on energy infrastructure serve as stark reminders of the need to continue protecting and reinforcing our grids.

At the same time, the energy price crisis has highlighted the need for strong interconnections to guarantee affordable and reliable electricity. In parallel, it is crucial to safeguard competitiveness, which requires efficient electricity markets and system security. These aspects are key to industrialising the European Union in a sustainable, clean, and affordable way.

Looking ahead, the ambitious but essential European Green Deal goal of carbon neutrality by 2050 also requires a robust cross-border backbone and flexible power grid. Integrating large-scale renewable energy sources, along with the growing demand for system flexibility, requires a modern and well-coordinated transmission system.

ENTSO-E is committed to fulfilling its general economic interest function with public service obligations. Our role is twofold: managing the present by ensuring a secure, competitive, and efficient power system, while also preparing for the future – delivering a grid ready to support Europe's carbon neutrality ambitions. ENTSO-E stands ready to support policymakers in achieving these objectives for the benefit of all Europeans.

This AWP outlines the key activities planned for 2026 to help us meet these challenges and continue delivering a secure, resilient, and sustainable electricity system for Europe.

Policy Context

The ENTSO-E AWP for 2026 is published at a pivotal moment for European energy policy. The newly appointed EC priorities focus on strengthening competitiveness, simplifying regulations, and enhancing security, while maintaining the overall objectives set by the Green Deal. These priorities are also informed by the Draghi report on European competitiveness and shaped by an evolving geopolitical and economic landscape.

In early 2025, the EC presented the Competitiveness Compass, the Clean Industrial Deal, and the Action Plan for Affordable Energy. These initiatives aim to lower energy costs, build a genuine energy union, attract investments, and prepare for a potential future price crisis.

By the end of 2025, the EC will introduce a European Grid Package building on the Grid Action Plan adopted in 2023. It will consist of legislative proposals and non-legislative measures aimed at simplifying the trans-European energy networks (TEN-E Regulation), ensuring cross-border integrated planning and delivery of projects (especially focusing on interconnectors), streamlining permitting, enhancing distribution grid planning, boosting digitalisation and innovation, and meeting manufacturing supply needs.

Other important legislative initiatives include the review of the EU Energy Security Framework, the Digital Package and cybersecurity legislation, the revision of the Public Procurement Directives, the definition of the post-2027 Multi-annual Financial Framework (MFF) and the related Connecting Europe Facility mechanism, the European Climate Adaptation Plans, and further initiatives to review the Electricity Market Design (EMD).

Throughout 2026, ENTSO-E will actively contribute to these policy discussions by fulfilling its legally mandated tasks and providing its technical expertise to support evidence-based decision-making.

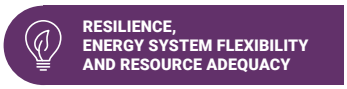
ENTSO-E Priorities 2026

Our implementation priorities for 2026 are fully aligned with the legislative roles that ENTSO-E and our member TSOs uphold, ensuring that we continue to drive progress towards a sustainable energy future.

Grid Infrastructure

Delivering on policy goals requires supply chains to provide critical components to build grid infrastructure, such as interconnectors, on time. ENTSO-E will continue working to overcome existing barriers, collaborate with other stakeholders to deliver a common approach to procuring assets, address bottlenecks, and shorten lead times. Regarding sustainability, ENTSO-E will continue to assess life cycle assessment (LCA) principles related to the planning and operation of transmission assets, as well as circular economy principles.

Resilience, Energy System Flexibility, and Resource Adequacy



A resilient grid is key to achieving energy and climate objectives. ENTSO-E is focused on assessing and enhancing energy system flexibility, collaborating with the EU DSO Entity on demand-side flexibility. In 2026, ENTSO-E will continue to enhance the role of flexibility in future system operations. The ERAA will assess whether the electricity system has sufficient resources to meet demand. In addition, the Seasonal Outlook reports will provide information on the security of electricity supply before each summer and winter period.

Security of Critical Infrastructure

In 2026, ENTSO-E will carry out tasks related to security of supply and the physical security of grid infrastructure, and contribute to the cybersecurity of grid operations. The common grid model (CGM) and Operational Planning Data Environment (OPDE) are key to achieving security of supply and implementing the cybersecurity framework. ENTSO-E will also continue implementing the cybersecurity NC.

Market Design Reform: Onshore and Offshore

ENTSO-E contributes to the integration and optimisation of EMD, which is essential for facilitating decarbonisation and improving consumer affordability. ENTSO-E considers both onshore and offshore dimensions. In 2026, ENTSO-E will continue to coordinate the development of the ENTSO-E, all TSOs, and regional TSOs' obligations described in the NC, Guidelines (GL), and Clean Energy Package (CEP). In addition, ENTSO-E will follow recent European Commission (EC) initiatives, such as the Clean Industrial Deal and the Action Plan for Affordable Energy.

Regional Strategic Topics: West Balkan Integration, Assistance to Ukraine and Moldova, Cooperation with UK TSOs

ENTSO-E recognises the importance of regional strategic topics. Efforts will continue to ensure the integration of the West Balkan region and provide assistance to Ukraine and Moldova. This work is guided by EU policies on regional integration and energy solidarity. ENTSO-E will also cooperate with the Turkish TSO (TEIAS), KOSTT, and UK TSOs.

Network Codes and Regulatory Framework

Achieving energy and climate policy objectives requires updating NCs and GLs to uphold them. ENTSO-E will continue to support TSOs in this regard and in implementing regulations such as the Network Code Demand Response (NC DR), NC ER, System Operation Guideline (SO GL), Connection NCs, Network Codes on Cybersecurity (NCCS), Electricity Balancing Guideline (EBGL), Forward Capacity Allocation (FCA), and Capacity Allocation and Congestion Management (CACM). ENTSO-E also seeks to support policy and financial reforms to invest in grids, in line with the Affordability Action Plan. In addition, ENTSO-E will continue working on regulatory frameworks, including tariffs, and anticipatory investments.

Enhancing Operational Readiness, CGM, and Regional Services

ENTSO-E works to enhance grid stability by improving operational readiness and resilience, with a focus on outage planning, stability management, and the CGM as the basis for multiple Regional Coordination Centre (RCC) tasks. In 2026, ENTSO-E will continue work on the Methodology for Coordinating Operational Security Analysis (CSAM), collect data on grid disturbances, and build a proof-of-concept solution for moving towards probabilistic risk assessment. ENTSO-E will continue publishing annual reports on the incident classification scale (ICS) and load-frequency control (LFC). ENTSO-E will ensure consistency between the SO GL and other NC and GL to ensure that European regulation remains fit to ensure operational security.

System of Systems: Developing the Gas/H_2 Strategy, Cooperation with the EU DSO Entity, TYNPD Scenarios

ENTSO-E is developing a new set of pan-European cross-sectorial TYNDP2026 scenarios and fostering TSO – DSO cooperation to create a "system of systems". This approach is guided by the TEN-E Regulation and the EC strategy on system integration. ENTSO-E is committed to cooperating closely with the EU DSO Entity to achieve European energy policy goals. In addition, ENTSOG and ENTSO-E will continue to develop scenarios as the basis for their respective TYNDPs, and to determine EU funding for electricity and gas infrastructure Projects of Common Interest (PCIs) or Projects of Mutual Interest (PMIs).

Data Management

Effective data management, accurate data, and models are all key to informing decisions related to energy policy objectives, such as security and investments. In 2026, ENTSO-E will continue extending the Common Information Model (CIM) and implementing guides to support data exchanges. ENTSO-E will also contribute to common energy data space and digital twin discussions and work on a modernised data platform that enhances transparency.

Leveraging Innovation for Grid Development

ENTSO-E is committed to innovation as a key enabler of the energy transition. In 2026, ENTSO-E will continue undertaking initiatives related to grid use, sustainability, stability management frameworks, high-voltage direct current (HVDC) systems, and flexibility. ENTSO-E will also continue to develop its vision for the future of the energy system, which also considers a multi-sector approach. Digitalisation will also be key in 2026. ENTSO-E will contribute to the Joint Task Force for Digitalisation of Energy System EU Action Plan (DESAP), charting a roadmap for AI implementation, and laying the groundwork for digital twin development.

1 Network Codes and Guidelines

Operations Network Codes and Guidelines

System Operation Guideline

Commission Regulation (EU) 2017/1485, establishing the SO GL, sets out harmonised rules to ensure operational security, frequency quality, and efficient use of the interconnected system and resources. ENTSO-E and TSOs at the pan-European, SA, and regional levels carry out several tasks to implement the SO GL and the methodologies that stem from it.

ENTSO-E facilitates work at the pan-European level, whereas TSOs organise the activities of SAs in their respective regional groups. Other developments regarding the implementation of the SO GL are communicated regularly through the System Operations Committee.

ENTSO-E will continue the implementation work pursuant to Article 44 of the CSAM, which requires the development of a probabilistic risk assessment methodology. ENTSO-E will continue collecting data on grid disturbances and building a proof-of-concept solution to advance towards probabilistic risk assessment. The progress towards the development of the methodology is described in the biennial report, published in December 2025.

ENTSO-E will continue publishing annual reports on the (Incident Classification Scale (ICS) and Load Frequency Control (LFC), as required under Article 15 and Article 16 of the SO GL. Furthermore, ENTSO-E will also focus on monitoring recognised trends, such as the greater number of voltage violations due to increased renewable energy sources in the power generation mix. For the remaining reporting obligations specified in Article 14 of the SO GL, ENTSO-E will further commit to implementing data delivery to ACER for monitoring purposes. This includes a detailed listing of relevant operational data and implementing the necessary IT tools.

In addition, in 2026, ENTSO-E will continue working to ensure consistency between SO GL and other NC and GL, ensuring the European regulation is fit to ensure operational security in a new energy landscape (e.g. with the integration of a large volume of renewables). In this context, ENTSO-E will be ready to propose relevant regulation and methodology amendments related to the SO GL and the operational security analysis (CSA) and CGM methodologies.

Emergency and Restoration

Commission Regulation (EU) 2017/2196, establishing the NC ER, sets out harmonised rules for safeguarding operational security, responding to emergency situations, and restoring the system as efficiently and quickly as possible. In 2026, ENTSO-E will continue to coordinate the implementation of the NC ER by the TSOs and address potential issues that require cross-border alignment.

In addition, ENTSO-E will work to ensure consistency between the NC ER and other NC and GL. This will ensure that the system remains viable when implementing efficient safeguarding and rapid restoration to a normal state, while taking into account the additional complexity introduced by more decentralised production.

Market Guidelines and Network Codes

Forward Capacity Allocation Guideline

Forward Capacity Allocation

The FCA Regulation (EU) 2016/1719 entered into force in September 2016, setting out rules on cross-zonal capacity calculation and allocation in the forward time frame. The FCA Regulation is implemented at the pan-European level. Nevertheless, implementation of the methodologies remains ongoing, and regular amendments to the methodologies are being made to ensure the consistency of the full system.

FCA Biennial Review of the Harmonised Allocation Rules

The Harmonised Allocation Rules (HAR), pursuant to Article 51 of the FCA Regulation, are scheduled for review in 2027, with the work beginning at the end of 2026. According to Article 68 (5) of the HAR, the HAR should be reviewed at least every two years by the Single Allocation Platform (SAP) and the relevant TSOs, with the involvement of registered market participants.

FCA Market Assessment and FCA Regulation Amendment Preparations

In accordance with Article 9 of Regulation (EU) 2024/1747, the EC is carrying out an impact assessment of measures to improve the ability of market participants to hedge price risks in the internal forward electricity market.

This impact assessment will be completed by January 2026 and will result in the amendment of the FCA Regulation. The amended FCA Regulation will enter into force six months later, in June 2026, and all TSOs and ENTSO-E will immediately begin working on its implementation. ENTSO-E will analyse the EC assessments and lead the conceptual discussions.

FCA Long-Term Flow-Based Allocation Coordination Based on Approved Methodologies

TSOs and the Joint Allocation Platform (JAO) are working to implement the long-term flow-based allocation (LTFBA) project in the Core and Nordic capacity calculation regions (CCRs), respectively. The LTFBA project includes two major workstreams: (1) the process for calculating FB capacity, developed by the TSOs of the respective capacity calculation region (CCR); and (2) the process for allocating capacities from the FB domain, developed by JAO with the support of TSOs from both CCRs, Core, and Nordics (capacity allocation).

The go-live of the LTFBA is planned for the end of 2026 for the long-term yearly and monthly products of 2027. TSOs are fully committed to implementing LTFBA and the improvements needed for a well-functioning long-term market by November 2026 and are working intensively in cooperation with national regulatory authorities (NRAs) and ACER to achieve this goal.

Capacity Allocation and Congestion Management Guideline

Preparation of the Submission of the Methodologies According to the Amendment of the CACM Regulation (CACM 2.0)

ENTSO-E and all TSOs will fulfil the requirements for developing the terms and conditions once the amended CACM Regulation (CACM 2.0) enters into force.

CACM Congestion Income Distribution: Cross-CCR Implementation

On 21 December 2023, ACER published its decision approving the amendment of the congestion income distribution (CID) methodology for European electricity markets, in accordance with Article 73 of the CACM Regulation. This methodology addresses the management of unintuitive flows caused by allocation constraints and advanced hybrid coupling (AHC) by establishing a virtual hub approach.

ENTSO-E supports TSOs from CCRs mutually affected by those allocation mechanisms in developing, testing, and validating cross-CCR CID-related algorithms, tools, and procedures, as per Article 10 of the CID methodology.

In Q1 2026, the Congestion Revenue Distribution System (CRDS), developed by JAO to calculate, distribute, and settle congestion income between CCRs, will be finalised and go live. TSOs will undertake the redistribution aligned with the new methodology, from the Nordic AHC introduction (October 2024) to go-live.

CACM Assessment of the CID Methodology

ENTSO-E will support all TSOs in performing the assessment in accordance with Article 10(6) of the CID methodology. This article requires TSOs to assess the results of applying the CID methodology with regard to the requirement to ensure fair and non-discriminatory treatment during the development, testing, and first year of implementation of the cross-CCR mechanisms.

CACM CCR Determination: EnC CCR-Related Amendments and Central Europe Development

All TSOs will continue supporting the development of the market integration in the Energy Community countries in accordance with the adapted regulation, and the 31 January 2025 ACER request for amendment to the CCRs.

The roadmap for the Central Europe CCR continues to be developed in 2026.

CACM Capacity Calculation Region Assessment

Article 2 of the CACM Regulation defines CCRs as “geographic areas in which a coordinated capacity calculation is applied”. Therefore, a CCR defines the set of bidding zone borders among which TSOs coordinate the tasks of capacity calculation. In accordance with ACER Decision No. 04/2021 of 7 May 2021, the TSOs’ assessment of CCR configuration is due by three months after the implementation of the first version of the Regional Operational Security Coordination (ROSC), in accordance with Article 76 (1) of the SO GL in the Core CCR. The Core CCR ROSC is expected to be implemented in Q3 2027.

Bidding Zone Review

In 2026, ACER, NRAs, Member States, or TSOs may trigger a new pan-European bidding zones review. If this is the case, ENTSO-E will support the work and facilitate the work at the pan-EU level.

Technical Report on Bidding Zone Configuration

In 2027, ACER is expected to request a Technical Report on bidding zones for the years 2024, 2025, and 2026. Work on this will begin In late 2025 and continue throughout 2026, especially in light of the CACM 2.0 updates, which may change the definition of structural congestions and directly affect the content of the report.

The Technical Report presents the top congestions in the EU, identifies flows not resulting from capacity allocation, and provides transparent reporting on congestion income, firmness costs, and the implementation of the CEP’s 70 % margin available for cross-zonal trade.

ENTSO-E will consider whether an annual data collection and reporting cycle would be more efficient and better serve the interests of key external stakeholders. Furthermore, ENTSO-E will align the Technical Report, where congestions are reported, more closely with the TYNDP, where grid investments are planned.

CACM Capacity Calculation 70%: Monitoring and ACER Follow-up, Report Preparation

In 2026, action plans will end. As a result, ENTSO-E will continue to support the implementation of the 70 % minimum target and provide full transparency on national compliance methodologies, including a pan-European overview of national monitorings.

CACM Power Transfer Distribution Factor Calculation and Provision to ACER

In accordance with Articles 8(8), 8(9), and 9(1) of Regulation (EC) 714/2009 and Article 82(4)(5) of Regulation (EC) 2015/1222, ENTSO-E provides ACER with data for monitoring the implementation and effects of CACM. As part of this data provision, ENTSO-E provides power transfer distribution factor (PTDF) calculations to ACER once a year, and will continue to do so in 2026.

CACM Intraday Cross-Zonal Gate Opening and Intraday Cross-Zonal Gate Closure Times: EMDR Implementation

ENTSO-E will continue to support all TSOs during the implementation phase to ensure compliance with the requirement that, from 1 January 2026, the intraday cross-zonal gate closure time (IDCZGCT) shall not exceed 30 minutes ahead of real time. This requirement is in accordance with Article 2(5)(a) of Regulation (EU) 2024/1747 of the European Parliament and of the Council of 13 June 2024, amending Regulations (EU) 2019/942 and (EU) 2019/943 to improve the EU's EMD (Electricity Market Design Regulation or EMDR).

Electricity Balancing Guideline

Co-optimisation: Research and Development Activities on Integrating Co-optimisation into the Price Coupling Algorithm

On 23 September 2024, with its Decision 11-2024[1], ACER adopted the amended methodology[2] for the price coupling algorithm and the continuous trading matching algorithm. This methodology sets the regulatory framework for the algorithms used for matching orders and allocates cross-zonal capacities in the European day-ahead and intraday electricity markets. This topic is being handled in cross-regulation and cross-committee level on the TSO side, given the legal requirements on the co-optimisation (Article 38(3) and Article 40 of the EB Regulation).

Nominated electricity market operators (NEMOs), in collaboration with TSOs, are conducting research and development (R&D) activities to understand the technical feasibility, impacts, and implications of integrating co-optimisation into the price coupling algorithm. This work will be structured around four milestones, expected to finish in November 2026. The R&D outcomes should provide sufficient information to determine the best approach for implementing co-optimisation and estimate a realistic timeline for its introduction in the day-ahead market coupling algorithm.

NEMOs and TSOs will submit to ACER the second report (R2) covering areas listed in points d) to g) of Article 4(15) of Annex I by 31 May 2026. R2 must conclude on the technical feasibility of the options selected in the R1 Report, which would have been submitted to ACER by 30 September 2025. By 30 November 2026, submission of the third report (R3) is expected, covering the remaining areas (i.e. points h)–i) of Article 4(15) of Annex I.

After these required R&D activities are finalised, NEMOs and TSOs will discuss their implications with ACER, develop proposals for amending the affected Terms, Conditions and Methodologies, and run the related public consultations with market participants.

ENTSO-E will take a leading role in the conceptual discussions and external communication of the co-optimisation concept.

FSkar Within the Continental Europe SA and Between SAs

The next review mechanism shall start no later than May 2026. All Continental Europe Synchronous Area (CESA) TSOs shall review the FSkar methodologies, after implementation of the FSkar within SA common settlement rules, in accordance with the methodologies pursuant to Articles 50(3) and 51(1) of the EB Regulation.

In accordance with the methodologies pursuant to Articles 50(4) and 51(2) of the EB Regulation, after implementing the FSKar between SA common settlement rules, a review mechanism shall start no later than May 2026, in which all asynchronously connected TSOs will review these settlement rules. Following the Review Reports developed and submitted to concerned NRAs in May 2023, the next review period is scheduled to start in May 2026 (i.e. every three years after the last review) and conclude by the end of 2026.

These tasks fulfil the legal obligations that require a periodic review mechanism to evaluate the methodologies and propose any necessary changes. The review mechanism, which initiates the review of the methodologies, explicitly identifies the need to investigate the potential harmonisation of current methodologies – for example, evolving towards a harmonised price calculation method, a harmonised TSO–TSO settlement period, and the replacement of the day-ahead market prices with balancing energy (aFRR) prices.

Following the approach adopted in the previous review period in 2022, ENTSO-E expects that one Review Report will be written in 2026 for Articles 50(3) and 51(1), and another for Articles 50(4) and 51(2), reflecting the split between intended and unintended exchanges. Both Review Reports will include the review of FSkar operations and the FSkar methodology, as well as potential improvements and changes.

1 ACER Decision No. 11-2024 on amendments to the price coupling algorithm and the continuous trading matching algorithm, including the common sets of requirements

2 ACER Decision No. 11-2024 Annex I Methodology for the price coupling algorithm, the continuous trading matching algorithm and the intraday auction algorithm

Implementation Frameworks: Terms and Conditions Harmonisation

In accordance with Article 16 of the Implementation Frameworks of the mFRR and aFRR platforms, all TSOs must develop a common harmonisation proposal (CHP) for the harmonisation of terms and conditions (T&C) for balancing service providers (BSPs). To identify possible harmonisation needs in the European balancing market, all TSOs conducted public consultations in 2023 and 2024 to gather input to evaluate the T&C for BSPs based on the provisions of Article 16(2) of the Implementation Frameworks of the mFRR and aFRR platforms. Based on stakeholder input, a short list of possible harmonisation needs was drafted and consulted from December 2024 to January 2025.

In 2025, all TSOs used the proposed short list of harmonisation needs to draft the CHP. This CHP is due to be finalised and submitted to ACER in Q4 2025, with ACER's decision expected by Q2 2026.

European Balancing Platforms

ENTSO-E will continue the coordination between European balancing platforms and ENTSO-E structures, ensuring good collaboration and information exchange between regulatory authorities and stakeholders. Following regular practice, ENTSO-E will organise at least one public workshop on the European balancing platforms.

Demand Response Network Code

Pursuant to the mandate based on Article 59(9) of Regulation (EU) 2019/943, ENTSO-E and the DSO Entity submitted the NC DR package (including the NC DR, and amendments to the EB Guideline, the SO GL, and the Demand Connection Network Code) on 8 May 2024 to ACER. Following the submission of ACER's Recommendation No 01/2025 on reasoned proposal for the establishment of the NC DR in March 2025, ENTSO-E, in cooperation with the EU DSO Entity, will follow and support the adoption process by the EC (currently planned until Q1 2026) and work to implement the NC DR starting in 2026.

ENTSO-E, in cooperation with the EU DSO Entity, will follow the mandates stemming from the adopted NC DR, including but not limited to:

- Drafting EU-wide methodologies
- Conducting preparatory work to establish a baselining methodology registry
- Cooperating closely with relevant organisations to draft, improve, and support the development of standards related to the implementation of this regulation
- Cooperating with ACER on the establishment of the European Stakeholder Committee (ESC) on Demand Response

Based on the NC DR-related EB Regulation amendments adopted by the EC, ENTSO-E aims to identify any aspects that should be addressed under the existing methodologies and may require action at the European level. In 2026, amendments will be required to the balancing legal and regulatory frameworks, including, but not limited to, the Imbalance Settlement Harmonisation Methodology (ISHM) and the mFRR and aFRR Implementation Frameworks.

Connection Network Codes

Three connection network codes (CNCs) define the technical capabilities of system users (power generating modules, demand facilities, and HVDC systems) to deliver system-supportive performance under all operating conditions, thereby contributing to the preservation or restoration of system security, especially in the event of exceptional out-of-range contingencies. The three CNCs are:

- **Regulation (EU) 2016/1388 establishing a Network Code on Demand Connection (NC DC)**
- **Regulation (EU) 2016/631, establishing an NC on requirements for grid connection of generators (NC RfG)**
- **Regulation (EU) 2016/1447, establishing an NC on requirements for the grid connection of HVDC and direct current-connected power park modules (NC HVDC)**

In 2022, according to Art. 60 of Regulation (EU) 2019/943, ACER initiated the process of amending the three CNCs:

- In September 2023, ENTSO-E submitted the proposals for amending **NC RfG** and **NC DC** to ACER. Upon stakeholders' proposals assessment, ACER published its **final recommendation to the European Commission** (EC) on 19 December 2023.
- In addition, ENTSO-E participated in the amendment process of the **NC HVDC**. The public consultation on the NC HVDC was initiated by ACER in June 2024 and was based on the Expert Group on Connection Requirements for Offshore Systems **(EG CROS) phase II report**, approved by the Grid Connection European Stakeholder Committee (GC ESC) and published in December 2023. ACER published its final recommendation to the EC in December 2024.

At the time of this writing, the EC plans to publish the amended version of the NC RfG for feedback by mid-2025. The amended versions of the NC DC and NC HVDC are expected to follow at a later date. Once the three codes come into force, the TSOs will have a three-year national implementation period. ENTSO-E will remain at the disposal of the EC to support this process during 2026. Moreover, ENTSO-E will participate in the EC's **"Have your say" consultations** once each NC is published.

ENTSO-E is planning to continue assessing the list of Implementation Guidance Documents (**IGDs**) throughout 2026, according to Article 58 of the NC RfG, Article 56 of the NC DC, and Article 75 of the NC HVDC. The IGDs are non-binding reports, mainly for TSOs and other system operators, that provide guidance and clarification on both technical and non-technical issues, enhancing coordination and harmonisation where appropriate. In 2026, ENTSO-E will update existing

IGDs and/or create new ones based on the new CNCs, which will support the amendment proposals for upcoming national implementations. Depending on the final roadmap from the EC regarding the adoption of the amended regulations, ENTSO-E plans to prioritise the following topics, taking into account stakeholders' feedback shared during the AWP 2025 and through the GC ESC framework:

- Grid forming
- Heat pumps
- Certification
- Power-to-gas demand units
- Forced oscillations
- Electrical storage modules
- Aggregation of different type of facilities
- Low-frequency demand disconnection and underfrequency defence plan

Once these new and updated IGDs are developed, they will be open for public consultation, which will be communicated via the GC ESC platform, led by ACER. Subsequently, ENTSO-E will collect and address stakeholder feedback and update the IGDs accordingly.

In addition, ENTSO-E will perform the yearly process mandated by Article 59(2) of the NC RfG and Article 76(2) of the NC HVDC, and requested by ACER in their letters of 14 March 2017 regarding NC RfG and NC HVDC. This process involves collecting and **submitting to ACER, by the end of June 2026**, information from TSOs and DSOs on the compliance (and any remaining non-compliance) of installed generation capacities and HVDC systems.

Furthermore, ENTSO-E will continue to monitor existing and new European standards and provide recommendations, as appropriate, to ensure better alignment between standards and CNCs and to achieve consistency. In addition, where relevant, any divergences in the implementation of European CNCs at the national level by each Member State may be included in a report, which would be more effective once the amendments to the regulation enter into force.

Grid Connection European Stakeholder Committee (GC ESC)

Regarding stakeholder engagement, ENTSO-E co-organises the GC ESC together with the EU DSO Entity, with ACER serving as chair. The committee aims to ensure effective stakeholder engagement in the implementation of the CNC, including discussion of proposals for amendment. Through the GC ESC, stakeholders are kept informed of developments and provided with a platform to express their views and feedback on CNC implementation. This also covers related documents, such as the ENTSO-E IGDs.

The GC ESC meets four times a year. Additionally, a dedicated stakeholder Expert Group (EG) on the Certification of Electric Vehicles and Heat Pumps meets regularly. This group discusses related topics in detail and aims to provide recommendations on closing identified gaps in compliance schemes and relevant international standards through appropriate additional specifications.

Cybersecurity Network Code

ENTSO-E is committed to maintaining and enhancing cybersecurity across the grid, guided by the Network Code Cybersecurity (NCCS), which entered into force on 13 June 2024. The NCCS requires electricity entities to carry out comprehensive risk assessments, share and respond to incidents, manage procurement, and implement security requirements.

In 2026, ENTSO-E will commit to implementing the cybersecurity framework designed to protect the energy grid from evolving cyber threats, including, but not limited to:

- Performing EU-wide risk assessments
- Drafting procurement recommendations
- Performing feasibility studies to develop a common tool for incident sharing
- Preparing cybersecurity exercise templates at the entity, Member State, regional, and cross-regional levels
- Developing minimum and advanced cybersecurity controls

2 Market-Related Tasks

Electricity Market Design

The full implementation of the recent EMD reform, composed of Directive (EU) 2024/1711 and Regulation (EU) 2024/1747, will continue to shape ENTSO-E's activities on EMD throughout 2026. In addition, recent EC initiatives, notably the Clean Industrial Deal and the Action Plan for Affordable Energy, will significantly influence dynamics, products, and processes across European electricity markets in the coming years.

Several key actions and legislative initiatives are foreseen for 2026, such as the EU Grid Package, the electrification action plan, the transposition of energy sharing provisions into national legislation, and the establishment of indicative non-fossil flexibility targets by Member States. Other initiatives announced by the EC for Q4 2025 (e.g. guidance on CfDs design and combination with Power Purchase Agreements (PPAs), guidance on promoting remuneration of flexibility in retail contracts, recommendation on taxation of electricity and non-energy cost components) will presumably impact ENTSO-E work in 2026. ENTSO-E will assess the expected implications of these initiatives on European electricity markets and on TSOs, contributing to their implementation where relevant.

A major milestone will be the EC's review of the regulation by 30 June 2026, culminating in a comprehensive report potentially accompanied by legislative proposals. ENTSO-E will contribute to this process by providing insights into the implementation levels across the EU, analysing the expected impact on system operation and market facilitation by TSOs.

Moreover, balancing security of supply with market efficiency will be a focal point, particularly as the revised Clean Industrial State Aid Framework, the updated ERAA methodology, and an update of the energy security framework (as outlined in the energy affordability action plan) will come into effect. ENTSO-E will actively contribute to these developments, with the aim of ensuring that market design reforms enhance resilience while maintaining efficient market signals for flexibility and decarbonisation.

On the topic of long-term contracts, ENTSO-E is prepared to support the EC's mandate to facilitate the uptake of PPAs. Special attention will be given to the interplay between PPAs and two-way CfDs, especially in light of the upcoming revision of rules on forward markets.

Transparency Regulation

Regulation (EU) No 543/2013 on the submission and publication of data in electricity markets (Transparency Regulation) sets out the criteria for data submission and its publication on a centralised platform, namely the ENTSO-E Transparency Platform (TP).

In line with the requirements of Article 5 of the Transparency Regulation and to facilitate harmonised data submissions to the platform, ENTSO-E developed a Manual of Procedures (MoP) comprising technical guides that elaborate on data definitions and the technical aspects of data exchanges.

Market-related fundamental information on generation, consumption, transmission, and balancing is published on the TP, collected through various sources, such as TSOs, power exchanges, and other third parties, including SIDC, the SAP, and European balancing platforms.

MoP Updates and Related TP Implementations

In line with the Transparency Regulation, the TP MoP was further revised and updated in 2025. This iteration (v3r5) was developed mainly in response to the adoption of methodologies in the Core and Nordic regions for LTFBA. With the implementation of balancing capacity procurement optimisation, the corresponding algorithm will now also be published. An amendment to the Implementation Framework for the PICASSO platform introduced a requirement to publish elastic demands for the aFRR standard product as well. The package also includes the incorporation of the Statistical Data Portal into the platform, along with several improvements to existing publications. Implementation of the TP to support these amendments is planned for completion in the first half of 2026, according to the timeline communicated to stakeholders and the public.

In addition to MoP v3r5, scheduled for release in 2025, a new release (v3r6) was also being prepared in 2025, which foresees the implementation of virtual bidding zones as required by the legal framework for the Nordic CCR, along with several other amendments aimed at improving data publications in TP in line with the Transparency Regulation. Subject to the adoption date of v3r6, relevant implementation activities are also expected to take place in 2026.

Continuing Improvements of TP Architecture

Following the launch of a new graphical user interface (GUI) and upgrades to the back-end architecture in 2025 to manage the growing volume of data publications, the technical implementation of user feedback will be carried out.

These implementations will occur throughout the year based on continuous tests, as well as reviews and feedback from surveys and user groups. Further webinars and workshops are planned based on user needs. These changes will enhance robustness by providing improved functionalities, expanded hosting capabilities, and an upgraded user experience.

TP Vision 2030

The growing publication requirements on the TP and the increasing number of TP users call for the development of a TP vision and strengthening its role as an advisor for specialists, policymakers, and the broader public. Within this context, TP Vision 2030, approved by the Market Committee in 2023, addresses three roadmap themes to enable the TP to become Europe's most trusted energy knowledge platform: reinventing the TP mobile app, improving data quality, and enhancing user engagement. Implementation of these workstreams in 2025 is expected to yield results in 2026, especially regarding improvements in data quality, which is the highest priority for TP users.

Regarding data quality, the establishment of new data quality checks, the development of new monitoring tools, expanded support for data providers, improved monitoring reports, and enhanced access for public users to information on data completeness and quality are intended to address existing concerns and provide necessary support to data providers, in line with the strategy defined in TP Vision 2030. Furthermore, the implementation in 2026 of the revised Memorandum of Understanding (MoU) signed between ENTSO-E and TSOs (2025) will expand quality checks to new data publications and incorporate suggestions from ACER and other regulators.

In terms of user engagement, the development of a TP Knowledge Base, targeted for 2026, will consolidate all information in one place to make TP data easier to access and understand, alongside other planned changes designed to improve user experience. In addition, the renewed mobile app is scheduled to go live in the first half of the year, following the design and development work of the previous year.

The ENTSO-E Transparency User Group (ETUG) and Co-creation User Group (CCUG) will remain involved in each of these workstreams in 2026 to ensure that the needs and preferences of market participants are incorporated. As part of TP Vision 2030, these measures aim to improve the reliability and usability of the TP and its services for the wider public, in line with Article 3 of the Transparency Regulation.

REMIT II

Following the 2025 assessments based on the new Implementing Regulation and Delegated Acts under REMIT II (Regulation (EU) 2024/1106), any impact and required developments for the TP will be addressed in 2026.

Other Data Provisions via TP

The TP, along with its public side, provides data directly to ACER as part of REMIT and other regulations. Following the TP's technical implementations in 2025 for the FCA List of Data (Article 63(3) FCA), the EB List of Data (Article 63 EBGL) will be implemented in Q1 2026, followed by the SO GL List of Data (Article 14 SO GL) in Q1/2 2026.

Finally, subject to the decisions of the relevant authorities in due time, the TP may be expanded in 2026 to include publications on emissions as required by Article 20a of the revised Renewable Energy Directive.

Economic Regulation and Finance

EU Grid Action Plan 9, 10 (Finance Advisory Group)

Action 9 of the EU Grid Action Plan states that the EC will launch a reinforced process with stakeholders, including system operators, to assess obstacles to financing grids and explore financing instruments to match their investment needs. ENTSO-E aims to support the policy and financial reforms to invest in grids, in line with the Action Plan. To achieve this, ENTSO-E has created the Finance Advisory Group to provide a platform for raising awareness about TSOs' financial challenges and opportunities. In 2026, ENTSO-E will continue to provide feedback to the Commission, ensuring that TSOs' investment needs are considered in financial discussions.

Amendment of Use of Congestion Income Methodology 2019/943 Article 19

In 2026, ENTSO-E will propose amendments to the use of the congestion income methodology, in accordance with Article 19 of Regulation 2019/943.

ITC Mechanism

The Inter Transmission System Operator Compensation (ITC) Agreement is a multi-party agreement between ENTSO-E and its member TSOs, KOSTT, National Grid ESO, and Ukrenergo. It provides a single frame for compensating European TSOs for the costs associated with hosting transit flows. The ITC mechanism is governed by Article 49 of Regulation (EU) 2019/943 and further specified by Regulation (EU) No 838/2010, which sets out GL for the ITC mechanism and a common regulatory approach to transmission charging. The ITC covers both the use of grid infrastructure by transits (i.e. the Framework Fund) and the losses caused by transits (i.e. the With and Without Transits fund).

The ITC Funds are financed by all importing and exporting ITC Parties, including fees applied to Perimeter Countries for scheduled energy exchanges with ITC Parties. Amprion and Swissgrid serve as the data administrators of the ITC Agreement, carrying out the tasks mandated for ENTSO-E and its member TSOs. Their responsibilities include preparing the Compilation Report, the Report on Capacity Allocated in a Manner not Compatible with Congestion Management GL, the Report on the Snapshots, the Report on Transit Losses, and monthly Preliminary and Final Settlement Notifications, which are then sent by ENTSO-E to ITC Parties for their signature. Each data administrator covers a specific geographical area.

In 2026, as every year, ITC Parties will provide and verify the values used to calculate the annual perimeter fee, such as the cost of losses, vertical load, and capacity allocated in ways not compatible with the 2009 Congestion Management GL. ENTSO-E publishes both the perimeter fee and the ITC Transit Losses Data Report (see next point) on its website. In addition, ENTSO-E, on behalf of the ITC Parties, provides information to ACER upon request, which ACER uses for its ITC monitoring report.

Transit Losses Data Report 2010/838 and Perimeter Fee

ENTSO-E will publish its annual report on transmission losses incurred on the transmission system during the relevant period, along with the methodology used to calculate those losses, in line with Articles 4.2 and 4.3 of the Annex of Regulation (EU) No 838/2010, Part A. In line with this requirement, the ITC Transit Losses Data Report describes the With and Without Transit methodology used to calculate transit losses. This annual report also presents the results of these calculations, showing the amount of transit losses actually incurred on the transmission system during the preceding calendar year.

Future Improvements and Changes to the ITC Mechanism

While the ITC mechanism has played an important role in compensating costs associated with transits and supporting progress towards an integrated internal electricity market, a review of the mechanism and the underlying Regulation (838/2010) is necessary.

Following ACER's January 2023 recommendation on ITC, ENTSO-E and TSOs will continue to discuss improvements to the ITC mechanism, especially in terms of pricing network losses.

TTO Report

In 2026, ENTSO-E will publish its Transmission Tariff Overview (TTO) Reports for 2024 and 2025. The reports compare TSO tariffs across Europe, examining the TSO cost component and how different tariff systems allocate costs to transmission users. To compare the data, ENTSO-E calculates an annual unit transmission tariff (UTT) for each participating country on a pre-defined base case.

Anticipatory Investments EU Grid Action Plan Article 4

ENTSO-E will continue its work on anticipatory investments, a key enabler of the energy transition, following EC guidance on the topic.

Common Position on Tariffs

ENTSO-E will continue providing input to Action 8 of the EU Grid Action Plan on tariff design and implementation, with the aim of ensuring that tariff methodologies provide appropriate incentives, are cost-reflective, and support fair cost allocation.

Market Stakeholder Engagement

Market Stakeholder Committee

ACER and ENTSO-E have co-organised three ESCs, one per family of codes (market codes, operational codes, and connection codes). These committees aim to complement, rather than replace, the legal obligations of stakeholder consultation and information included in the NCs during the implementation period. The Market ESC meets four times per year. Dedicated stakeholder groups, such as the Electricity Balancing Stakeholder Group, meet regularly to discuss topics related to EB Regulation in detail.

CACM and FCA Coordination Group, EB Coordination Group, and CACM Pentalateral Coordination Group

ENTSO-E, ACER, NRAs, and NEMOs (for the Pentalateral Coordination Group only) monitor the implementation of the market NC and GL. They meet regularly to anticipate developments, such as updates to TCMs, and follow up on implementations.

3 Operational Readiness and Resilience

Regional Coordination Centres (RCCs)

Regional coordination first became a legal mandate in SO GL, with five core tasks to be performed by RCCs. This was expanded to 16 tasks in the CEP and Regulation (EU) 2019/943. RCCs are entities owned and appointed by TSOs in system operation regions (SORs) to fulfil tasks according to Article 37(1) of Regulation (EU) 2019/943. Through their recommendations to TSOs, RCCs help improve the efficiency of system operation coordination, reduce the risk of wide-area events such as brownouts or blackouts, and lower costs by ensuring maximum transmission capacity is available to market participants.

ENTSO-E supports the development and implementation of new RCC tasks according to Article 37 of Regulation (EU) 2019/943 and regularly consults with stakeholders in the Steering Group Regional Coordination (StG ReC), which was established in line with Article 30.1 e) of Regulation (EU) 2019/943 at the end of 2021. The main purpose of the StG ReC is to facilitate, coordinate, and develop regional coordination, particularly among RCCs and TSOs. The StG ReC framework serves as a platform for efficient, transparent, and smooth collaboration between RCCs, TSOs, the regions (CCRs/SORs) and ENTSO-E, as well as external stakeholders.

For RCC tasks that require a pan-European or cross-regional approach, either legally or at the request of TSOs, the StG ReC coordinates the business requirements, business development, implementation, rollout, and operation of the tasks to the extent legally required or requested by TSOs. For regional-level RCC tasks, the StG ReC facilitates cooperation and coordination among regions and RCCs, promotes consistency in collaboration with other relevant ENTSO-E entities, maintains a pan-EU perspective, and monitors task performance.

The implementation of the RCC tasks from SO GL is still ongoing:

- Both STA and OPC processes are currently in operation and will continue to be updated as part of ongoing process improvements. Updates include addressing backlogged features and implementing new features, as prioritised by TSOs.
- See the Outage Planning Coordination section below.

The implementation of CSA and CC in the regions, according to regional methodologies, will continue. In line with its legal mandate under Articles 30 and 34 of Regulation (EU) 2019/943, ENTSO-E will work towards a consistent framework for implementing regional coordination tasks, either through EU methodology proposals or by providing a forum for RCCs and TSOs across different regions, promoting consistent and efficient regional coordination.

ENTSO-E will focus specifically on the implementation of the following tasks in 2026:

- **Article 37 (1)(j) and Article 37 (1)(k):** Sizing and procurement of balancing capacities: implementation by SORs together with RCCs is expected in the coming years, and a project team has already begun work.
- **Article 37 (1)(l):** Inter-TSO settlement: implementation will be carried out where applicable, if requested by TSOs.
- **Article 37 (1)(o):** Maximum Entry Capacity: ENTSO-E will continue to actively support the continuous development of process improvement. These activities include backlogged and new features, as well as requirements that were not in the original scope. These features are critical for process efficiency and quality results.
- **Article 37 (1)(i):** Conducting post-operation and post-disturbance analysis and reporting; ENTSO-E will provide legal support for the contractual framework applicable to the task.
- **Article 37 (1)(p):** The need for new infrastructure, which is related to system development, is currently on hold pending the full implementation of the CGM and CSA/CC processes.

Lastly, in 2026, ENTSO-E will continue developing a proposal to support the coordination and optimisation of regional restoration, as required by Article 37(1)(h). A dedicated team of experts has been established at ENTSO-E to fulfil the requirements of this activity.

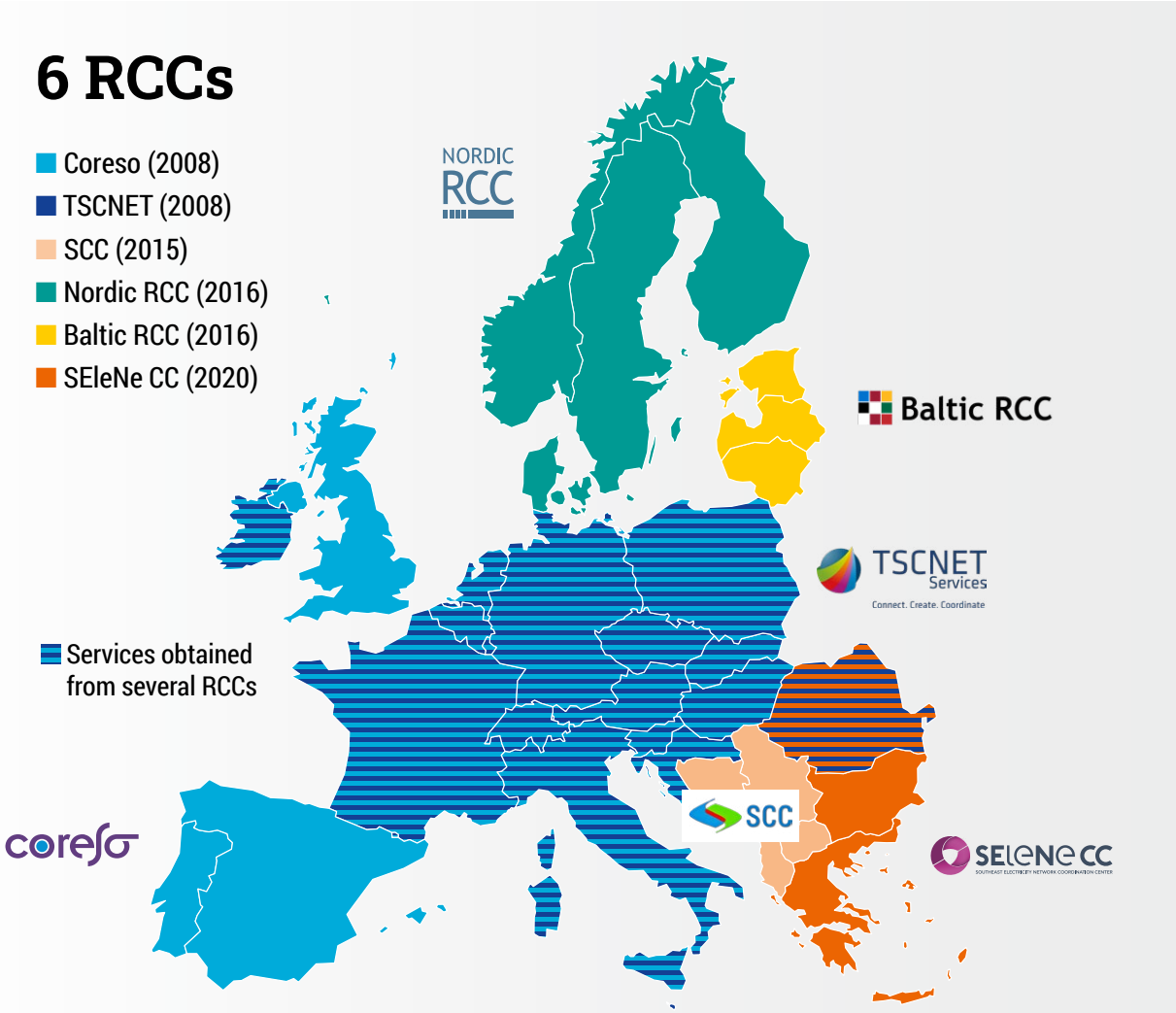


Figure 1: Member states of European RCCs*

* Germany is serviced by both TSCNET and Coreso, Italy is serviced by both TSCNET and Selene-CC, and Romania is serviced by both Selene-CC and TSCNET. Kosovo's borders are indicated in the RCC map, as KOSTT signed the Connection Agreement with ENTSO-E in 2020. This designation is without prejudice to positions on status and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence. Kosovo is not yet serviced by an RCC.

Outage Planning Coordination

The pan-European outage planning coordination (OPC) process is designed to ensure coordinated planning of grid outages following the standards outlined in the applicable regulatory framework. It uses the pan-European OPC application to synchronise data across TSOs and RCCs. The pan-European OPC tool supports outage coordination by sharing the element list and maintaining a database of relevant assets. A coordinated procedure ensures data quality and consistency, for example, by validating information on the planned status of cross-border TSO lines.

The OPC process incorporates several advanced features to ensure the secure and efficient management of grid outages across Europe. These key features include:

- **Coordination Across Regions:** Enables TSOs and RCCs to collaborate on outage planning at both the pan-European and regional levels.
- **Automated and Manual Features:** Combining operational expertise with automated tools for efficient data processing.
- **Direct Connection and Continuous Monitoring:** Instant update of local changes to the centralised database, which is continuously reviewed to harmonise data and preventively tackle potential operational risks arising from outages.
- **Security-Driven Planning:** Application of industry standard security plans and business continuity procedures to mitigate risks, ensuring compliance with security and confidentiality requirements.

Short-Term Adequacy

Short-term adequacy (STA) focuses on identifying situations where a lack of adequacy is anticipated in control areas or at the regional level. Adequacy refers to the ability to meet electricity demand with available generation resources while accounting for cross-border exchanges. If a lack of adequacy is detected, the regional STA process is initiated to provide actionable recommendations to address the issue.

Key Features of Short Term Adequacy

The STA process is key to ensuring the reliability and security of Europe's electricity grid by identifying potential shortfalls in supply. It operates at both the pan-European level, assessing the entire grid, and regionally, focusing on specific areas of risk. Through coordinated assessments and flexible responses, the STA process swiftly detects and mitigates adequacy issues, helping maintain grid stability.

The following key features outline its operational framework:

- Pan-European Coverage: Enables coordinated daily assessments across Europe, identifying potential shortfalls for the upcoming seven days.
- Regional Response: If inadequacy is detected, targeted regional processes are conducted to ensure grid stability.
- Dynamic Adaptation: The scope of regional assessments adjusts dynamically based on the specific TSOs and neighbouring systems affected.
- Automated Rotational Model: RCCs manage the pan-European STA process on a two-week rotational basis, ensuring continuity through a designated main RCC and backup RCC.
- Flexible Triggering: While regular regional STA processes follow identified time stamps, TSOs can request assessments independently as needed.

Common Grid Model

The CGM and the OPDE are critical enablers of operational coordination and security of supply on the European level. Ensuring greater visibility and insight into pan-European interconnection flows is a critical step in the broader effort to strengthen grid security, ensure cost-efficient operation, and increase cooperation and collaboration among European TSOs and RCCs.

The legal basis for the CGM and OPDE is found in three of the NC: The SO GL (Article 64), the CACM Regulation (Article 17), and the FCA Regulation (Article 18). The CGM is a prerequisite for several services harmonised in the NC, including coordinated capacity calculation (CCC), CSA, OPC, and adequacy analysis (STA).

A CGM compiles the individual grid models (IGMs) of each TSO, covering time frames from one year before real time to one hour before real time. TSOs' IGMs, after following a quality assessment and pan-European alignment process, are provided to RCCs, who merge them into a pan-European CGM and feed the merged CGM back into the OPDE system. In 2026, the focus on delivering fit-for-purpose CGMs for the various pan-European and regional RCC tasks will be a priority. The CGM Action Plan Project, under the guidance of the System Operations Committee (SOC), will facilitate the delivery of operational CGMs. The target focus will move from the day-ahead business process to all the remaining time frames, as stipulated in the SO GL. Close monitoring, as well as reporting to external stakeholders such as ACER and NRAs, is also expected. In addition to the overall performance of the OPDE platform, a key target will be the delivery of quality grid models, enhanced functionality of the OPDE IT infrastructure, readiness and complete delivery of grid data, and active participation from the community.

European Awareness System

In recent years, the EAS has been significantly enhanced with new functionalities, primarily focusing on the integration of data from the Wide Area Monitoring System (WAMS), which has given operators improved frequency maps and introduced new voltage and angle maps.

Apart from routine data integration and quality improvements, future developments will include new functions based on WAMS data and an ex post analytical platform for analysing operational events using WAMS data. The WAMS ex post analysis project is scheduled to launch its RFP this year and begin in 2026, in line with recommendations from the 2021 grid incident reports.

Cybersecurity enhancements are also ongoing, with system logs being integrated into a CSIEM. Additionally, data from balancing platforms MARI and PICASSO are currently being incorporated into the system. Looking ahead, as the current EAS system based on the Siemens Spectrum 4 platform is expected to be phased out by early 2027, ENTSO-E is prioritising the transition to a new system, carefully evaluating each development request based on operational needs and past investments through the NextGen EAS project. A new blackout-proof application hosting solution is planned to host the NextGen EAS system, aligning with ENTSO-E's ICT Strategy goals.

Risk Preparedness

After identifying the regional electricity crisis scenarios in 2024 pursuant to Article 6 of the Risk Preparedness Regulation (RPR) 2019/941, Working Group Risk Preparedness (WG RP) has begun preparations for the next cycle in 2028. This includes several workshops and exercises based on the scenarios identified in 2024, as well as improvements to available tools and methods.

Implementation of Grid Incident Recommendations

In accordance with Article 15(5) of the SO GL, all operational security incidents ranked at scales 2 and 3 of the ICS are investigated by dedicated Expert Panels consisting of ENTSO-E, ACER, and NRAs. These investigations conclude with a final report describing the causes and the course of the incident, as well as recommendations to avoid similar incidents in the future. Throughout the year, ENTSO-E will continue implementing the recommendations from all three 2021 ICS scale 2 grid incidents and begin implementing recommendations from the 2024 ICS scale 3 incident.

System Operations Stakeholder Engagement

System Operations Stakeholder Committee

The System Operations European Stakeholder Committee (SO ESC) is a platform that aims to:

1. Contribute to a more informed decision-making process for the methodologies and rules for the NC implementation

2. Contribute to monitoring progress in the NC implementation process

3. Serve as a platform to share general views on NC implementation, enabling stakeholders to express their views, receive feedback, and discuss proposals for amendments

ENTSO-E and the EU DSO Entity organise SO ESC meetings, which are chaired by ACER four times a year. The SO ESC ensures collaboration on topics relevant to the two associations and the European power system operation. SO ESC aims to complement, not replace, the legal obligations of stakeholder consultation and information included in the NC during the implementation period.

Topics discussed include implementation actions of operational codes, such as the CGM; European system operation incidents; NC development; amendments; and development of methodologies, such as the PRA and others. SO ESC's work program depends on the timeline of the deliverables, initiation of new processes, and potential relevant incidents.

System Operations Coordination Group

ENTSO-E, ACER, and NRA members form the System Operations Coordination Group (SO CG) to monitor the implementation of the operations NC. The SO CG meets four times per year to discuss developments and follow up on the implementation of codes.

Synchronous Areas and Regional Groups

ENTSO-E either supports each Regional Group corresponding to an SA on an ad hoc basis or provides administrative and technical support to the specific region.

ENTSO-E will continue developing mutual coordination and support between SAs, using the functionality of HVDC links to implement new services. ENTSO-E will focus in particular on offshore, in accordance with the ENTSO-E Offshore Roadmap.

The work aims to coordinate short- and long-term measures to mitigate frequency deviations in CE. The focus is on the deterministic frequency deviations related to the change of scheduling programmes in the early morning and late evening hours. ENTSO-E will also support implementation in CE of the probabilistic frequency containment reserve (FCR) dimensioning methodology, and the minimum activation time for FCR providers with limited energy reservoirs (LER).

Coordination with Third Country TSOs

As part of the CESA, Moldelectrica must follow its rules and be involved in its operational processes. ENTSO-E will provide guidance and support Moldelectrica's implementation of these requirements. As part of the long-term agreement with TEIAS, ENTSO-E continues to closely cooperate and engage with the Turkish TSO on all the existing operational processes and technical procedures.

In addition, ENTSO-E will continue its close cooperation with KOSTT to ensure the secure operation of the CE grid.

4 Grid Development and Expansion

The Seasonal Outlook Reports: Summer Outlook 2026 and Winter Outlook 2026–2027

ENTSO-E's Seasonal Outlook Reports (Seasonal Adequacy Assessments, as per Article 30 (1)(m), of Regulation (EU) 943/2019 and Article 9 of the RPR (Regulation (EU) 2019/941)) investigate the level of security of the electricity supply at the pan-European level ahead of each winter and summer period. They are released twice a year, with a Summer Outlook in June and a Winter Outlook in December. Their role is to identify when and where system adequacy – the balance between supply and demand for electricity – is at risk. Outlooks are not forecasts of the future. Rather, they identify potential vulnerabilities for the upcoming season, which can be addressed proactively with preparation or mitigation measures. Each outlook is accompanied by a review of what occurred during the previous season.

The Seasonal Outlooks reflect the implementation of the methodology as developed by ENTSO-E as per Article 8 of the RPR and as approved by ACER on 6 March 2020. The outlooks are based on data collected from TSOs and a probabilistic methodology. ENTSO-E uses a common database and tool structure for Seasonal Outlooks, as it does for the ERAA, including the Climate Database, Pan-European Market Modelling Database, and demand forecast tool.

The European Resources Adequacy Assessment 2026

The Electricity Regulation places resource adequacy in a central position in the European energy policy context. ENTSO-E's yearly ERAA investigates whether the electricity system has sufficient resources to meet demand – also referred to as power system resource adequacy – in the coming decade, setting us on a net-zero pathway. The report is built on models and analyses of possible events that could adversely impact the balance between the supply and demand of electric power. The ERAA is legally mandated under Article 23(2) of Regulation (EU) 2019/943.

The implementation of the ERAA builds on ENTSO-E's advancing experience as well as ACER's decision and feedback received from other stakeholders. The ERAA 2026 package will be released and provided for consultation in November 2026. It will contain the findings of the study and describe the process, input data, main assumptions, and methodological advancements. The delivery also builds on regular consultations and workshops or webinars with stakeholders throughout the full project timeline.

Regulation (EU) 2024/1747, amending Regulations (EU) 2019/942 and (EU) 2019/943 to improve the EU's EMD, foresees a re-opening of the ERAA methodology, which is expected to begin in April 2025. ENTSO-E will contribute to the discussion based on its expertise and experience of the four ERAA cycles. As the final new methodology is only expected to be approved in 2026, too late for implementation in ERAA 2026, ENTSO-E foresees its implementation starting from ERAA 2027.

The Ten-Year Network Development Plan 2026

The TYNDP is ENTSO-E's network planning tool and the European electricity infrastructure development plan. Mandated by Regulations (EU) 2019/943 and (EU) 2022/869, it provides a pan-European vision of the future power system and investigates how transmission infrastructure and storage can be developed to enable the energy transition in a cost-effective and secure manner.

The TYNDP is published by ENTSO-E every two years and feeds into the process of European PCIs and PMIs, run by the EC. The TYNDP is the outcome of a three-year process with three major steps, starting with the development of scenarios outlining how the European energy system might evolve towards 2050. The main role of the TYNDP is to identify where investments in various technical solutions in the electricity system could help release the expected system constraints, thereby providing a fit-for-purpose infrastructure across diverse scenarios. This is accomplished in two stages: first, by performing a system needs analysis that provides a high-level overview of constraint relief options to allow the decarbonisation of the EU power system at the lowest cost, followed by a call for transmission and storage projects (under different stages of development) across Europe, complemented by a cost–benefit analysis (CBA) of their impacts under different scenarios.

Scenarios

Scenarios are the first key step and a crucial outcome of the TYNDP process. As outlined in Regulation (EU) 2022/869, ENTSOG and ENTSO-E are required to use scenarios as the basis for their respective TYNDPs and the CBA calculation used to determine EU funding for electricity and gas infrastructure PCIs or PMIs. The scenarios are designed specifically for this purpose. The TYNDP 2026 scenarios framework will include one central scenario based on national energy and climate plans and aligned with EU targets.

The joint work on the TYNDP 2026 scenarios began in 2024 and continues until the submission of the scenarios to the EC, ACER, and EU Member States, planned in early 2026. Strong stakeholder engagement supports the process, with intense involvement of the Stakeholders Reference Group from the start of scenario building.

The development of scenarios for TYNDP 2028 will start in mid-2026, with first steps comprising the development of a stakeholder engagement plan and discussions on the scenarios framework, both involving the Stakeholders Reference Group, and potentially public stakeholders event(s).

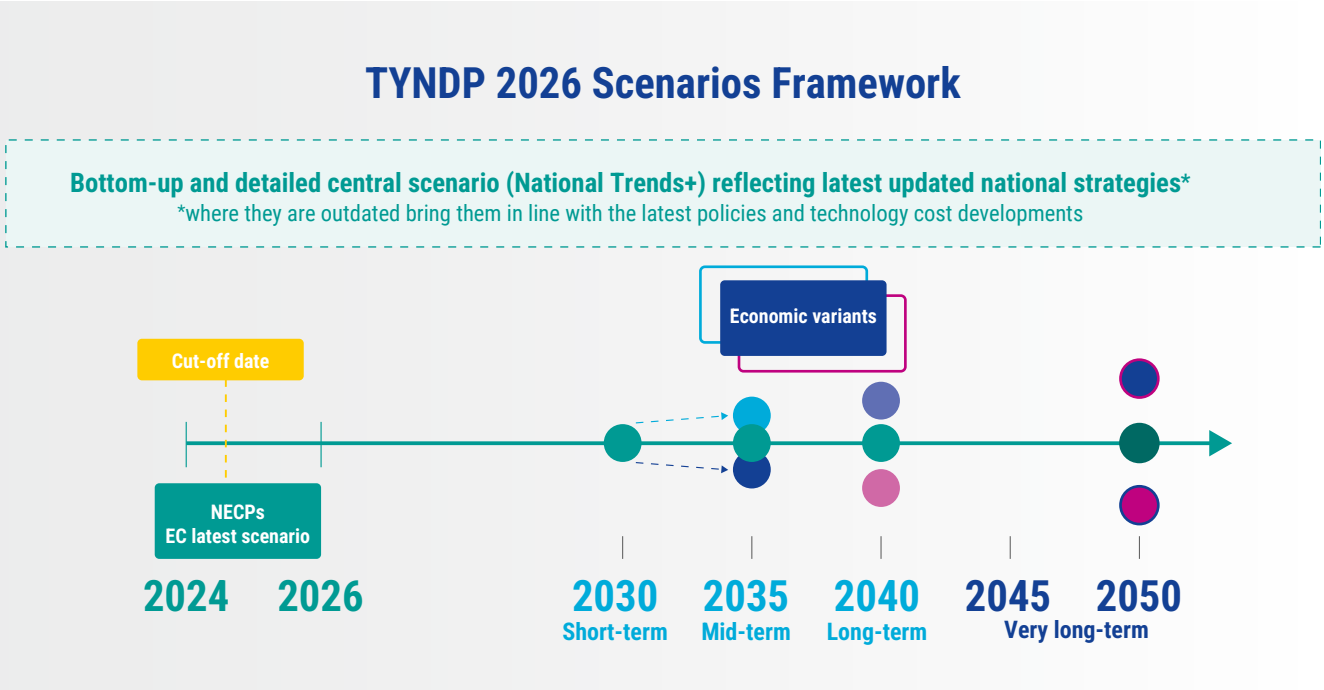


Figure 2: TYNDP 2026 scenario framework

Identifying Future System Needs

Based on the scenarios, in 2026, ENTSO-E will perform a study of cross-border system needs in 2040 and 2050. The System Needs Study shows where reinforcing cross-border transmission capacities throughout Europe could improve the cost-efficiency of the overall European energy system, while supporting, and even accelerating, Europe's energy transition. The System Needs Study will be performed on the central scenario National Trends +.

Unlike in TYNDP 2024, where studies of offshore needs were separate because of the legal deadline set by Regulation 2022(869), TYNDP 2026 will present an assessment of cross-border capacity, storage capacity and offshore corridors/hybrid capacity fully integrated into one single study. The TYNDP 2026 Package is planned for release in the fourth quarter of 2026 and will contain the Infrastructure Gaps Report as well as Offshore Network Development Plans per sea basin.

There will be many stakeholder engagement opportunities throughout the process, as detailed in the TYNDP 2026 stakeholders engagement plan released for consultation in late 2024.

Cost-Benefit Analysis of Projects

An infrastructure project can have various impacts on the electricity system. ENTSO-E has developed CBA GL for the EC that describe how best to assess these impacts for each project, considering social, economic, and environmental factors. This framework assesses issues such as the potential for reducing emissions, stability, flexibility, capital and operating costs, mitigation of loss of power over long-distance transmission, and integration of renewable energy into existing systems, for example, by connecting offshore power to a grid.

The identification of system needs and the CBA of projects complement each other in helping policymakers identify the most relevant projects at a given time. The System Needs Study considers the European electrical system in its entirety, from a global point of view, while the CBA of projects evaluates each project individually by assessing its specific impact on the overall system.

ENTSO-E will perform a CBA for each project included in the TYNDP 2026 project portfolio. Results will be released for consultation with the TYNDP 2026 package in the fourth quarter of 2026.

The current version of the CBA GL, which describe the methodology applied to perform the CBA of projects, was approved by the EC in 2024. Discussions on future improvements are due to begin in 2025.

Data and Models

Data and models continue to implement/improve tools and processes to increase data quality, improve data collection efficiency, and tackle the challenges faced by the studies. In 2026, further integration of market, climate, and grid data is planned, as well as a new tool to generate FB domains for ERAA and Seasonal Outlooks.

Grid Infrastructure and Supply Chains

The EU's ambitious energy transition goals, including integrating vast amounts of green electricity and electrifying consumption sectors, will require significant infrastructure expansion and modernisation. However, implementing this infrastructure comes with challenges. Permitting delays often slow project timelines, financing complexities hinder investment flows, and gaining public acceptance for new infrastructure can be difficult.

A critical focus in overcoming these barriers lies in addressing the resilience and efficiency of supply chains. As the demand for grid technologies rises sharply, the availability of critical components, skilled labour, and effective procurement processes will be central to meeting Europe's energy and climate objectives. Ensuring robust supply chains is essential to delivering the infrastructure required for a sustainable, affordable, and secure energy future. Current manufacturing capacities in Europe are insufficient to meet demand in the time required to deliver individual projects, resulting in significant lead times, delays, over-reliance on non-EU suppliers, and significant increases in investment costs. Lead times for key assets such as HVDC converters, cables, and power transformers often exceed four years, exacerbating project timelines.

Guided by the EU's Grid Action Plan, in December 2024, ENTSO-E, in cooperation with the EU DSO Entity, T&D Europe, and Europacable, launched a collaborative effort to address European manufacturing resilience. A joint roadmap will be launched in June 2025 at the Copenhagen Infrastructure Forum. It will assess common specifications for HVDC systems, asset design and factory testing, advocacy points for public procurement, and skilled workforce needs.

In 2026, the collaboration between ENTSO-E, the EU DSO Entity, T&D Europe, and Europacable will continue. The aim will be to agree on a common TSO approach on specifications for certain assets and explore opportunities for other assets to decrease lead times and address supply chain bottlenecks.

Energy Policy Initiatives

ENTSO-E aims to contribute to the upcoming updates to European energy policy initiatives. To achieve this, the EU Grid Legislative Initiatives (EGL) Board Group will liaise with relevant committees and provide guidance on relevant grid legislative initiatives, such as security of critical infrastructure, investments and financing, market design reform follow-up, supply chain strengthening, and infrastructure development.

5 Innovation and Digitalisation

Towards Sustainable Grid Infrastructure

In alignment with Europe's broader environmental objectives, ENTSO-E is assessing methodologies to integrate eco-design principles and life cycle assessment (LCA) into the planning and operation of transmission assets. This evaluation of environmental impacts across the entire asset life cycle –from material sourcing to decommissioning – aims to identify opportunities for improved resource efficiency. Furthermore, ENTSO-E is exploring the integration of circular economy approaches into asset management frameworks, focusing on environmentally friendly components, refurbishment and reuse strategies, and adherence to evolving regulatory expectations. As part of the RDI Roadmap under Mission 1 – Enhance grid use and sustainability, are "Methods for eco-design and LCA established in TSO context" and "Circular economy and environmentally friendly components included in planning and asset management". For 2026, the goal is to start (or continue) framing the R&I needs for these two milestones.

Advancing Stability Management for a Resilient European Grid

ENTSO-E is actively updating its stability management frameworks to keep pace with the evolving dynamics of modern power systems. In response to the increasing share of inverter-based resources, renewable energy storage, and advanced grid-forming solutions, current initiatives include the development of updated power system stability insights, resulting in high-level position papers to support stable grid operation under high penetration of inverter-based generation. These updates address challenges such as reduced system inertia, complex dynamic interactions, and the need for enhanced cross-border coordination to establish a practical, forward-looking approach that supports dynamic security assessments and facilitates a resilient, future-proof grid.

Innovation in HVDC Systems

ENTSO-E recognises the research and innovation gaps in HVDC systems and the immediate actions to close said gaps. In coordination with relevant stakeholders, ENTSO-E is currently planning the next steps at the EU level to harmonise specifications of HVDC projects (tackling RDI must be mentioned in a roadmap), address the RDI challenges of a multi-terminal, multi-vendor HVDC link (to realise HVDC interoperability as per the Interoperability Workstream roadmap), and elaborate on the stability challenges in DC networks (to tackle the yet-to-be-explored stability issues of HVDC systems). ENTSO-E is dedicated to enhancing HVDC reliability, improving understanding, and facilitating knowledge sharing among TSOs.

Flexibility Needs

The central role of flexibility in future system operation was underlined by Regulation (EU) 2024/1747, which introduced an amendment to Regulation (EU) 2019/943 requiring ENTSO-E and the EU DSO Entity to develop a methodology to enable TSOs and DSOs to assess flexibility needs at the Member State level. The flexibility needs assessment methodology is to be approved by ACER in July 2025. The analyses conducted by TSOs and DSOs pursuant to the methodology will serve as input into national reports on the estimated flexibility needs adopted by regulatory authorities or another authority or entity designated by a Member State. The reports will be used to define indicative national objectives for non-fossil flexibility and can therefore be a source for designing support schemes for non-fossil-based technologies. ENTSO-E will continue to support the TSOs during the implementation phase of this methodology and provide guidance addressing the challenges identified at the national level.

Future of Energy System

The ENTSO-E Vision report recognised that a decarbonised energy system is a horizontally and vertically integrated system. The planning processes for new energy infrastructure will require an integrated approach, across sectors (horizontal integration) and geographical dimensions (vertical integration). Several ENTSO-E innovation activities have investigated the challenges and opportunities of cross-sector integration, especially in the transport and heating sectors. Although such workstreams are still active, additional investigations are planned for specific assets, especially the integration of data centres. Business models for flexibility are also considered.

Digitalisation

In alignment with the EC's Digitalising the energy system – EU action plan (COM/2022/552), ENTSO-E and the EU DSO Entity are actively collaborating through the Joint Task Force for DESAP. This partnership is driving progress on key deliverables, including the recently published Common TSO-DSO Challenges & Opportunities report (February 2025), and future initiatives like digital twin use cases, a digital twin roadmap, and a smart grid indicators framework to measure performance and effectiveness.

ENTSO-E continues to drive the digital transformation of TSO operations by strategically integrating cutting-edge technologies. Some key future initiatives include charting a clear roadmap for AI implementation; establishing a foundational position on digital twins, including data, interoperability, and governance; integrating the Phasor Measurement Unit/Wide Area Monitoring System (PMU/WAMS) into energy management systems; and fostering vendor-agnostic solutions through transparent communication with technology providers.

Technopedia

In line with the Action Plan for Grids (COM/2023/757), Action 7, ENTSO-E is working on a DSO/TSO Technopedia platform, in cooperation with the EU DSO Entity. DSO/TSO Technopedia is a collaborative knowledge-sharing platform about grid technologies and use cases for distribution and TSOs. The platform aims to showcase commercially available technologies that can enhance the utilisation, stability, security, and resilience of the electricity grid. By submitting applications, external stakeholders can contribute valuable information on specific grid technologies and their use cases. To uphold the focus on system operators and maintain the quality and accuracy of published information, the associations will act as moderators. A transparent review process will enable associations to ensure the platform remains inclusive, non-discriminatory, and representative.

Grid Hosting Capacity

Following up on the Action Plan for Grids (COM/2023/757), Action 6, ENTSO-E is working with the EU DSO Entity to implement a central platform that will:

1. Aggregate the different national information and practices regarding hosting capacity
2. Provide key definitions and disclaimers to clarify these practices and numbers
3. Share best practices

The platform is intended to serve as a centralised entry point to EU practices and simplify the understanding of typically complex national methodologies. The work is being developed in consultation with relevant stakeholders and the EC.

EU DSO Entity Collaboration

The role of DSOs is becoming more crucial in power systems with increasingly decentralised power generation. Understanding the key role of DSOs in the future energy landscape, EU law and various EC recommendations are actively involving DSOs in planning and operation. ENTSO-E is committed to closely cooperating with the EU DSO Entity in a results-driven, consensus-seeking manner, maintaining a full system view. The two associations jointly publish a TSO–DSO Workplan every year, detailing the ongoing workstreams involving TSO–DSO collaboration. Additionally, the associations have an MoU that enables their commitment to continued collaboration.

Implementing Acts on Data Interoperability and Access

As required by Article 24(2) of Directive (EU) 2019/944, the EC adopted its first Implementing Regulation on interoperability requirements and non-discriminatory and transparent procedures for access to metering and consumption data (Implementing Regulation (EU) 2023/1162 or Implementing Regulation on Access to Metering and Consumption Data – IR AMCD) in June 2023. This regulation entered into force on 5 July 2023.

In line with the IR AMCD, ENTSO-E and the EU DSO Entity continue their cooperation on data transparency within the Joint Working Group (JWG) on data interoperability, established in 2023. The JWG supports and advises the EC in monitoring and further developing the implementing acts on data interoperability under Article 24(2) of Directive (EU) 2019/944.

Additionally, the JWG is mandated to cooperate with all relevant stakeholders, including NRAs, consumer associations, electricity retailers, European standardisation organisations, service and technology providers, and equipment and component manufacturers.

In 2025, the EC planned the entry into force of the Implementing Act on Interoperability Requirements and Non-discriminatory and Transparent Procedures for Access to Data required for customer switching, scheduled for Q3 2025. Furthermore, the JWC planned to send a draft proposal for the Implementing Act on Interoperability Requirements and Non-discriminatory and Transparent Procedures for Access to Data required for demand response to the EC in Q4 2025. Additionally, in Q3 2025, the JWG developed a publicly available repository (the Repository) to collect and publish reports on national practices provided by Member States to the EC regarding the implementation of data interoperability and access procedures, as well as other relevant information supporting European energy service interoperability, pursuant to Article 12(1)(c) of the IR AMCD.

In 2026, the main tasks of the JWG in relation to the Implementing Acts on Data Interoperability and Access will include:

1. Developing guidance to assist Member States in reporting national practices
2. Collecting reports on national practices provided by Member States regarding the implementation of the reference model
3. Publishing reports on national practices in the Repository, which shall be kept up to date and jointly managed by ENTSO-E and the EU DSO Entity
4. Assisting the EC in monitoring the implementation of the reference model included in the relevant implementing acts on data interoperability and access, and its further development due to regulatory, market, or technology changes
5. Supporting the EC, upon its request, in developing future implementing acts

Data Standardisation

ENTSO-E develops and maintains the electronic data interchange (EDI) library and the common grid model exchange standard (CGMES) library, which gather documents and definitions for the harmonisation and implementation of standardised electronic data interchanges to enable interoperability between actors in the European electrical industry. ENTSO-E also maintains and develops the tooling necessary for data exchange harmonisation. In accordance with Article 30 (1)(k) of Regulation (EU) 2019/943, ENTSO-E should contribute to the establishment of interoperability requirements and non-discriminatory and transparent procedures for accessing data.

The principal activities in 2026 will include:

1. Extending the CIM and implementation guides to support data exchanges required from the NC and CEP
2. Collaborating on international standards
3. Updating the CGMES and Regional Coordination Services data exchange profiles
4. Maintaining the harmonised role model
5. Participating in the JWG as mentioned above
6. Contributing to common energy data space and digital twin discussions as foreseen in DESAP
7. Implementing Article 55 (2)(a, b, c) of Regulation (EU) 2019/943 and Article 24 of Directive (EU) 2019/944
8. Training activities for the TSO–RCC community

6 Preparing for the Future Offshore System

Offshore wind is increasingly becoming a key area for cross-border cooperation. As wind generation expands across the European Sea Basins, the need for cross-border grid infrastructure will increase. ENTSO-E's role is to support, from a technical perspective, the development of the regulatory framework for an increasingly complex and interconnected offshore energy system and electricity grid.

In 2025, ENTSO-E will release an Offshore Roadmap outlining ongoing and planned actions, as well as the key tasks for TSOs and ENTSO-E in advancing towards the power system of the future, in cooperation with all other energy system partners. The roadmap outlines a path for addressing significant questions within ENTSO-E's responsibility, from defining offshore geographic areas and identifying a framework for offshore balancing to tackling frequency control and ramping issues. The roadmap will be a living document, with updates expected in 2026 and subsequent years to reflect new technological and regulatory developments.

Cooperation with stakeholders will be a key success factor in addressing the six areas identified in the roadmap. EU offshore energy ambitions will only materialise if the developers of offshore wind farms, technology manufacturers, market participants, and others are convinced to invest and cooperate. ENTSO-E will follow up on the stakeholder engagement activities that began in 2024.

In 2026, ENTSO-E will work on assessing the current operational framework to identify possible amendments that may be required to ensure the secure operation of both offshore and onshore grids. Moreover, tackling challenges to ensure dynamic stability in grids dominated by power electronics, both onshore and offshore, is crucial for expanding knowledge on resonance and converter-driven stability, assessing regulatory and technical needs, and sharing best practices. In addition, ENTSO-E aims to manage frequency control as a pan-European issue, moving beyond single islanding systems by leveraging the continuous development of HVDC technology and involving all SAs.

ENTSO-E is developing an offshore balancing concept that aligns with European regulations and facilitates the integration of Offshore Bidding Zones (OBZs) (which involve only generation and minimal or no offshore demand) and Offshore Wind Farms into the European balancing markets. By Q1 2026, ENTSO-E aims to identify any aspects or issues that cannot be addressed under the existing regulations and may require action at the European level. Specifically, by Q1 2026, ENTSO-E plans to investigate the following challenges:

- Steering instantaneous imbalances via the HVDC system
- Integrating OBZs into the EU balancing platforms
- Creating an adequate imbalance price
- Establishing rules for dimensioning and sharing reserves for offshore imbalances
- Allocating costs for procurement and activation of reserves
- Defining roles of market parties in balancing OBZ

Later in 2026, depending on the outcome of the investigation, amendments to the offshore balancing legal and regulatory frameworks may need to be developed.

Additionally, with the upcoming revision of the TEN-E Regulation, significant efforts will focus on assessing implementation challenges for various policy options and enabling tools to establish effective, fair, and sustainable cost-sharing agreements. These agreements are crucial to support the timely and coordinated development of offshore projects, ensuring that financial responsibilities among involved parties are equitably distributed in line with shared benefits, while promoting investment certainty and facilitating cross-border cooperation.

7 Monitoring and Reporting Activities

Market Activities

In accordance with Article 82 of the CACM Regulation, Article 63 of the FCA Regulation, and Article 59 of the EB Regulation, ENTSO-E will publish the yearly Market Report, covering the progress made in the implementation of CACM, FCA, and EB Regulations to bring the internal European electricity market closer to full realisation.

Additionally, in accordance with Article 59(2)(a) of the EB Regulation, ENTSO-E will publish the biennial Balancing Report, describing the design and implementation of the balancing markets at the pan-European, regional, and national levels. It also emphasises cross-border balancing capacity procurement, the development and harmonisation of methodologies, balancing energy platforms, and the imbalance settlement harmonisation process.

Furthermore, all relevant NEMOs and TSOs will provide a yearly report explaining the costs of establishing, amending, and operating single day-ahead and intraday coupling in accordance with Article 80 of the CACM Regulation. Similarly, a yearly report pursuant to Article 23 of the EB Regulation will be prepared, focusing on the costs of establishing, amending, and operating the European balancing energy platforms.

Furthermore, in accordance with ACER's opinion No 03/2025[3] on the first amendment of the ENTSO-Monitoring Plan in accordance with Article 63(2) of EB Regulation, several other reporting and assessment obligations are expected in 2026–2027 in cooperation with European balancing platforms, such as:

- Accession roadmaps of the European balancing platforms, in accordance with Article 5(4) of the aFRR and mFRR Implementation Frameworks (every six months)
- European balancing platform implementation and operation monitoring report, Article 13(1) of the aFRR and mFRR Implementation Frameworks (yearly)
- AWP of the European balancing platforms, Article 15 of the aFRR and mFRR Implementation Frameworks, Article 11 of the IN Implementation Framework (yearly)
- Efficiency and effectiveness assessment of the European balancing platforms, Article 13(7) of the aFRR and mFRR Implementation Frameworks (by July 2026)
- Comparison of alternative control models for the aFRR platform, Article 13(3) of the aFRR Implementation Framework (by July 2026)
- Evaluation of the impact of scheduled counter-activations for the mFRR platform, Article 13(3) of the mFRR Implementation Framework (by July 2027)
- All TSOs' quarterly report on the pricing of balancing energy and cross-border capacity, Article 11(3) of the Pricing Methodology (quarterly)
- All TSOs' price incident reports on price spikes on European platforms, Article 11(4) of the Pricing Methodology (incident-based)
- All TSOs' cross-zonal capacity welfare report, Article 26(12) of the harmonised cross-zonal capacity allocation methodology (14 months after implementation of cross-zonal capacity allocation optimisation function (CZCAOF) software)
- Assessment of the need for further harmonisation of the imbalance settlement, Article 12(3) of the Imbalance Settlement Harmonisation Methodology (initial report by July 2026, final report by July 2027)

3 ACER's opinion No 03/2025 on the first amendment of the ENTSO-E Monitoring Plan in accordance with Article 63(2) of the EB Regulation.

Annual Regional Coordination Assessment Report

To fulfil the obligations pursuant to Article 17 of Regulation (EU) 2017/1485 on establishing an SO GL, ENTSO-E publishes an annual report on regional coordination assessment. The goal of the report is to document the successful implementation and operational monitoring of RCC tasks and make this information available to the public. It contains key performance indicators (KPIs) for RCC tasks.

Annual Load-Frequency Control Report

The LFC annual report is a requirement of the SO GL. Article 16 of SO GL requires the TSOs of each EU Member State to provide ENTSO-E with the necessary data and information for the preparation and creation of the LFC annual report. The LFC report presents the results of frequency quality evaluation criteria for each SA and LFC block, along with the FCR obligations and initial FCR obligations of each TSO for every month of the preceding two years. It also includes implementation dates of any mitigation measures or ramping requirements to alleviate deterministic frequency deviations in which TSOs were involved during the preceding year. Each annual report is separately approved for publication by the ENTSO-E System Operations Committee.

Data Provision to ACER

Several GL require TSOs to provide data to ACER for monitoring purposes. Article 82(4) of the CACM, Article 63(3) of the FCA, Article 63(3) of the EBGL, and Article 14 of the SO GL require ENTSO-E and ACER to produce a list of relevant information to be communicated by TSOs to ACER via ENTSO-E. ENTSO-E maintains a comprehensive, digital data archive of this information in a standardised format.

The CACM list of information was agreed upon in 2018 and is gradually being implemented by CCRs as their capacity calculation methodologies go live. ENTSO-E monitors and supports the implementation process across all CCRs.

The SO GL list of information was amended and agreed upon between ENTSO-E and ACER in 2023, and implementation is ongoing.

The EB Regulation list of information was agreed upon between ENTSO-E and ACER in 2025 and is due to be implemented starting in February 2026.

For FCA, the 2025 focus was on the list of information agreement with ACER and TP preparation, while 2026 will focus on implementation by relevant CCRs.

Implementation and Monitoring of Mandates

The AWP includes EU-mandated ENTSO-E tasks, as well as those ENTSO-E carries out on behalf of TSOs. To ensure they are submitted on time and follow the established procedure, ENTSO-E will closely monitor their development during the year.

Network Codes and Clean Energy Package Implementation Programme

In 2026, ENTSO-E will continue to coordinate the development of the ENTSO-E, all TSOs and, where applicable, regional TSOs' obligations described in the NC, GL, and CEP as amended by the EMD Reform, ensuring that the implementation of these codes is conducted on time.

Monitoring Research, Development and Innovation Activities

Article 30(i) Regulation (EU) 2019/943 of the European Parliament and of the Council guides ENTSO-E's research, development, and innovation (RDI) work, focusing on the development of research plans and the deployment of those plans through research programmes.

To achieve this objective, ENTSO-E developed an RDI reporting cycle that commences with a map outlining a decade-long pathway for TSO activities in response to EU climate and energy objectives: the RDI Roadmap. The most recent RDI Roadmap was released in 2024 with a perspective through 2034. The Roadmap is followed by the Implementation Plan, which is under development in 2025. The reporting cycle is closed with the Monitoring Report.

Figure 3: RDI Reporting Cycle

ENTSO-E RDI Committee will focus on developing the RDI Monitoring Report, which will provide a detailed overview of TSOs' ongoing RDI activities and monitor their alignment with the 2024–2034 RDI Roadmap and the RDI Implementation Plan for 2026–2030. This analysis will outline the research and innovation pathways already undertaken by TSOs across EU, national, regional, and self-funded research projects, and will help to identify gaps where further efforts are required. In 2026, ENTSO-E will continue facilitating proposals for Horizon Europe calls and promoting TSO participation in European RDI projects. In doing so, ENTSO-E encourages collaboration on RDI topics and facilitates knowledge sharing among member TSOs.

In addition, ENTSO-E will continue to maintain strong cooperation with policymakers, regulators, and stakeholders across the European research and innovation space. ENTSO-E participates in the EU-endorsed European Technology & Innovation Platform on Smart Networks for Energy Transition (ETIP SNET).

Annexes

Annex 1: List of Abbreviations

ACER	Agency for the Cooperation of Energy Regulators
aFRR	automatic Frequency Restoration Reserves
AHP	Advanced Hybrid Coupling
AWP	Annual Work Programme
BZ	Bidding Zone
CACM Regulation	Regulation (EU) 2015/1222 establishing a guideline on capacity allocation and congestion management
CID methodology	Congestion Income Distribution methodology
CBA	Cost–Benefit Analysis
CC	Capacity Calculation
CCR	Capacity Calculation Region
CCUG	Co-creation User Group
CESA	Continental Europe Synchronous Area
CGM	Common Grid Model
CGMES	Common Grid Model Exchange Standard
CHP	Common Harmonisation Proposal
CID	Congestion Income Distribution
CIM	Common Information Model
CM	Capacity Mechanism
CN	Communication Networks
CNC	Connection Network Code
CRDS	Congestion Revenue Distribution System
CSA	Coordinated Security Analysis
CSAM	Coordinated Security Analysis Methodology
CZC	Cross-zonal Capacity
CZCA	Cross-zonal Capacity Allocation
DCC	Regulation (EU) 2016/1388 establishing a Network Code on Demand Connection
DESAP	Digitalisation of Energy System EU Action Plan
DSF	Demand Side Flexibility
DSO	Distribution System Operator
EAS	European Awareness System
EB GL	Regulation (EU) 2017/2195 establishing a guideline on electricity balancing
EC	European Commission
ECCo SP	ENTSO-E's Communication and Connectivity Service Platform
EG	Expert Group
EGL	EU Grid Legislative Initiatives
EMD	Electricity Market Design
ENTSO–E	European Network of Transmission System Operators
ENTSOG	European Network of Transmission System Operators for Gas
ERAA	European Resource Adequacy Assessment
ESC	European Stakeholder Committee
ETIP SNET	European Technology & Innovation Platforms on Smart Networks for Energy Transition Platform
ETUG	ENTSO-E Transparency User Group
EU	European Union
FCA Regulation	Regulation (EU) 2016/1719 establishing a guideline on forward capacity allocation
FCR	Frequency Containment Reserve
FSKar	Financial Settlement of KΔf, ACE and ramping period
GUI	Graphical User Interface
HAR	Harmonised Allocation Rules
HVDC	High Voltage Direct Current
ICS	Incident Classification Scale
IDCZGCT	Intraday cross-zonal gate closure time
IEM Directive	Directive (EU) 2019/944 on the internal market for electricity
IEM Regulation	Regulation (EU) 2019/943 on the internal market for electricity
IGD	Implementation Guidance Document
IGM	Individual Grid Model
IN	Imbalance Netting

IR AMCD	Commission Implementing Regulation (EU) 2023/1162 of 6 June 2023 on interoperability requirements and non-discriminatory and transparent procedures for access to metering and consumption data
ITC	Inter Transmission System Operator Compensation
JAO	Joint Allocation Platform
LFC	Load Frequency Control
LTFBA	Long-term flow based allocation
LMP	Local Marginal Pricing
MoP	Manual of Procedures
MCSC	Market Coupling Steering Committee
mFRR	manual Frequency Restoration Reserves
MoU	Memorandum of Understanding
NC	Network Code
NC DSR	Network Code on Demand Side Response
NC ER	Regulation (EU) 2017/2196 establishing a network code on electricity emergency and restoration
NCCS	Network Code on Cybersecurity
NEMO	Nominated Electricity Market Operators
NRA	National Regulatory Authority
OBZ	Offshore Bidding Zone
OPC	Outage Planning Coordination
OPDE	Operational Planning Data Environment
PCI	Project of Common Interest
PCN	Physical Communication Network
PMI	Project of Mutual Interest
PPA	Power Purchase Agreement
PTDF	Power Transfer Distribution Factor
RCC	Regional Coordination Centre
RDI	Research, Development, and Innovation
RfG	Regulation (EU) 2016/631 establishing a network code on requirements for grid connection of generators
RG CE	Regional Group Continental Europe
R&I	Research and Innovation
Risk Preparedness Regulation	Regulation (EU) 2019/941 on risk-preparedness in the electricity sector
ROSC	Regional Operational Security Coordination
RPP	Risk Preparedness Plan
RSC	Regional Security Coordinator
SAFA	Synchronous Area Framework Agreement
SAP	Single Allocation Platform
SDAC	Single Day-Ahead Coupling
SIDC	Single Intraday Coupling
SO ESC	System Operations Stakeholder Committee
SO CG	System Operations Coordination Group
SO GL	Regulation (EU) 2017/1485 establishing a guideline on electricity transmission system operation
SOC	System Operations Committee
SOR	System Operation Region
STA	Short-Term Adequacy Analysis
StG ReC	Steering Group Regional Coordination
TEN-E Regulation	Regulation (EU) 2022/869 on guidelines for trans-European energy infrastructure
TCA	Trade and Cooperation Agreement
TP	Transparency Platform
Transparency Regulation	Regulation (EU) No 543/2013 on the submission and publication of data in electricity markets
TSOs	Transmission System Operators
TTO	Transmission Tariff Overview
TYNDP	Ten-Year Network Development Plan
WAMS	Wide Area Monitoring System

Annex 2: List of Tasks for 2026

Annual Work Programme 2026 – List of tasks					2026											
No.	Topic	Regulation	Article	Description/Name of the AWP task	J	F	M	A	M	J	J	A	S	O	N	D
CROSS-COMMITTEE TASKS																
1.	All NCs	N/A	N/A	Implementation and monitoring of mandates – Strategic monitoring Dashboards												
2.	All NCs	N/A	N/A	Stakeholder involvement												
3.	All NCs	943/2019	N/A	Ensuring coordination between all Network Codes and Guidelines (NCCIP)												
4.	NC DR	Reg. 2019/943	A. 59(1e)	Implementation of a network code on demand response												
5.	Economic Regulation	EU Action Plan	Action 4	Follow developments on anticipatory investments												
6.	Finance/ Economic Regulation	EU Grid Action Plan	Action 8	Promote sound and fair regulatory treatment of TSO costs that promote cost efficiency, performance, and innovation												
7.	EMDR	Reg. 2019/943	A. 19e	Assessment of Flexibility Needs												
8.	RDI	N/A	N/A	Assets and Technologies												
9.	RDI	N/A	N/A	Security and operations of tomorrow												
10.	RDI	N/A	N/A	Digital & communication												
11.	TSO – DSO	N/A	N/A	Joint Work Plan of EU DSO Entity ENTSO-E												
12.	EU policy	N/A	N/A	New policy initiatives & action plans for 2026												
13.	TYNDP	Reg. 2022/869	A. 15	Application of the cost-benefit and cost-sharing to the priority offshore corridors												
14.	RCC	Reg. 2019/943	A. 37(1e)	Implementation of the RCC tasks – Short term adequacy												
15.	RCC	Reg. 2019/943	A. 37(1f)	Implementation of the RCC tasks – Outage Planning Coordination												
16.	SOGL Regional	Reg. 2017/1485, Reg. 2017/2196	A. 13 & A. 118, A. 10	Agreements for Synchronous Operation between Continental Europe TSOs and Moldelectrica												
17.	SOGL Regional	Reg. 2017/1485, Reg. 2017/2196	A. 13 & A. 118, Art.10	Agreement for Synchronous Operation between Continental Europe TSOs and KOSTT												
18.	SOGL Regional	Reg. 2017ng/1485 Reg. 2017/2195 Reg. 2017/2196	A. 13 & A. 118, A. 50 & A. 51, A. 10	RG CE: Implementation of SAFA methodologies (including FSKar)												
19.	TEN-E	N/A	N/A	TEN-E												
20.	TCA	N/A	N/A	Cooperation with UK TSOs to establish technical procedures (market)												
GROUPS UNDER ENTSO-E BOARD																
21.	Offshore	NC & GLs, TEN-E	N/A	Offshore Roadmap												
22.	Finance/ Economic Regulation	EU Grid Action Plan	Action 9, 10	Promote financing mechanisms to support the upcoming grid investments and the energy transition												
23.	EGL BG	EU policy	N/A	Ensure the security of the critical infrastructure, against cyber and physical threats.												
24.	EGL BG	EU policy	N/A	Review of Public Procurement Framework												
25.	EGL BG	EU policy	N/A	Strengthen Supply Chains, skilled workforce development and related standardisation/common specifications through engagement with stakeholders												
26.	EGL BG	EU policy	N/A	Investment, Financing, work on tariffs												
27.	EGL BG	EU policy	N/A	Follow-up on Electricity Market Design Reform, including consumer topics, long term contracts aswell as market integration												
28.	EGL BG	EU policy	N/A	Infrastructure Development												
29.	EGL BG	EU policy	N/A	Follow-up on GAP, Infrastructure Development and EU Grids Package, such as proposals to accelerate permitting storage and RES .												

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MARKETS																
30.	Annual Work Programme	Reg. 2019/943	A. 30(1j)	Adopt an Annual Work Programme							W					
31.	CACM	Adapted EnC Reg. 2015/1222, as well as EU Reg. 2015/1222	A. 15 for both adapted and EU Reg, Arts 9(6) and 9(13) of the EU Reg.	West Balkan-CCR determination – EnC CCRs related amendments												
32.	CACM	Reg. 2015/1222	A. 2(3)	Capacity Calculation Region Assesssment												
33.	CACM	Reg. 2015/1222	A. 73	Assessment of the CID methodology												
34.	CACM	Reg. 2015/1222	N/A	Regulation Amendments implementation												
35.	CACM	Reg. 2015/1222	A. 73	Congestion Income Distribution – cross CCR implementation												
36.	CACM	Reg. 2015/1222	A. 80(2)	Annual CACM cost report												
37.	CACM	Reg. 2015/1222 and Reg. 2019/943	A. 32 and A. 14 respectively	Bidding zone review												
38.	CACM	Reg. 1222/2015	N/A	Capacity Calculation 70 % – monitoring and ACER follow up, report preparation												
39.	CACM	Reg. 2015/1222	A. 59	Intraday cross-zonal gate opening and intraday cross-zonal gate closure times – EMDR implementation												
40.	Capacity Mechanisms	Reg. 2019/943	A. 26(11)	Annual Report on Cross-Border Participation to Capacity Mechanisms												
41.	EB	Reg. 2017/2195	A. 20(6), A. 21(6) & A. 22	Coordination on Implementation of mFRR-Platform, aFRR-Platform and IN-Platform												
42.	EB	Reg. 2017/2195	N/A	Co-optimisation (R&D)												
43.	EB	Reg. 2017/2195	N/A	Development of Electricity Balancing Guideline amendments												
44.	EB	Reg. 2017/2195	A. 21	Proposal for amendment of the implementation framework of aFRR-Platform, mFRR-Platform, IN-platform												
45.	EB	Reg. 2017/2195	A. 52(2)	Proposal for amendment of the imbalance settlement harmonisation methodology												
46.	EB	Reg. 2017/2195	A. 50(3) and (4); A. 51(1) and (2)	Fskar Between Synchronous Areas (SAs) – Methodology Review												
47.	FCA	Reg. 2016/1719	A. 51	Biannual review of the Harmonised Allocation Rules (FCA Article 51)												
48.	FCA	Reg. 2016/1719	N/A	Market assessment and FCA regulation amendment preparations and implementation												
49.	FCA	Reg. 2016/1719	A. 49, A. 57 & A. 61	Long-Term Flow-Based Allocation coordination according to the approved methodologies												
50.	Economic Regulation	Reg. 2019/943	A. 19	Amendment of use of Congestion Income Methodology												
51.	Economic Regulation	Reg. 2019/943	A. 19	Prepare Annual Congestion Revenues Overview Report 2025												
52.	Economic Regulation	Reg. 2010/838	N/A	Promote structural improvements to the ITC Mechanism												
53.	Economic Regulation	Reg. 2010/838	Annex A – Art. 4 (3)	Transit Losses Data Report												
54.	Economic Regulation	Reg. 2010/838	Annex A – Art. 7 (3)	Collection of annual data, audit and publication of the perimeter fee												
55.	Economic Regulation	Reg. 2019/943	A. 18	Publish Transmission Tariff Overview Report 2024 – 2025												

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56.	Monitoring CACM	Reg. 1222/2015	A. 82(2)	Monitor the implementation of single day-ahead and intraday coupling/ and the long term market progress and potential problems with the implementation (Market report)												
57.	Monitoring CACM	Reg. 1222/2015	N/A	Monitor the implementation of Flow based												
58.	Monitoring CACM	Reg. 1222/2015	34	Technical report on bidding zone configuration												
59.	Monitoring CACM	Reg. 1222/2015	A. 82(4), (5)	CACM list of information to ACER (Monitoring CACM)												
60.	Monitoring CACM	Reg. 1222/2015	N/A	PTDFs calculation and provision to ACER												
61.	Monitoring EB	Reg. 2017/2195	A. 23(1)	Report on costs of establishing, amending and operating European balancing platforms												
62.	Monitoring EB	Reg. 2017/2195	A. 63(3), (4)	EBGL list of information to ACER (Monitoring EB Regulation)												
63.	Monitoring EB	Reg. 2017/2195	N/A	Balancing – Implementation framework survey / T&C harmonisation												
64.	Monitoring EB	Reg. 2017/2195	A. 63(1)	Monitoring of the implementation of the EB												
65.	Monitoring FCA	Reg. 2016/1719	A. 63(1)	Monitor the implementation of forward capacity allocation and the establishment of single allocation platform including the progress and potential problems with the implementation (Monitoring FCA)												
66.	Monitoring FCA	Reg. 2016/1719	A. 63(3), (4)	FCA list of information to ACER (Monitoring FCA)												
67.	RCC	CEP	A. 37(1k)	RCC Procurement Proposal – Definition of Parameters to be applied to Assessment of available non-contracted platform bids												
68.	TP	Reg. 2013/543	A. 4(1)	Implementation of Transparency platform according to regulation 543/2013												
69.	TP	Reg. 2013/543	A. 4(1)	Implementation of Transparency platform according to other regulations and guidelines (SOGL, EBGL, CACM)												
70.	TP	Reg. 2013/543	N/A	Data provision to Transparency platform according to regulation 543/2013												
71.	TP	Directive (EU) 2023/2413	Art.20a	Methodology preparation and data publication (tbc) according to RED												
72.	TP	Reg 1227/2011	N/A	REMIT – Follow-up of amendments												
73.	Offshore	N/A	N/A	Offshore-balancing												
74.	EMDR	N/A	N/A	Preparatory work and implementation of future Market Design legislation and State Aid Framework												

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SYSTEM OPERATION																
75.	RCC	Reg. 2019/943	A. 30(2)	Report to ACER on shortcomings identified regarding the establishment and performance of regional coordination centres.												
76.	RCC	Reg. 2019/943, Reg. 2017/2196	A. 37(1b), A. 6(3), (4)	Implementation of the RCC tasks – Coordinated security analysis												
77.	RCC	Reg. 2019/943	A. 37(1h)	ENTSO-E shall develop proposals for RCC tasks – supporting regional restoration												
78.	RCC	CEP	A. 37(1j)	RCC Sizing Proposal: Definition of parameters values												
79.	RCC	Reg. 2019/943	A. 41(2)	ENTSO-E and RCCs shall operate transparently and publish documents on websites, full transparency towards stakeholders												
80.	RCC	Reg. 2019/943	A. 46(3)	ENTSO-E to receive from RCCs the RCC Annual Report												
81.	RCC	Reg. 2016/1719, Reg. 2015/1222 and Reg. 2017/2195	A. 10, A. 20 and A. 37 respectively.	ENTSO-E shall develop proposals for RCC tasks – Common Grid Model Methodology (amendments)												
82.	RGCE Operations	Reg. 2017/1485	A. 156	RG CE: Implementation Art.156 SO GL – T_{min}LER for FCR (frequency containment reserves) by LER (low energy reservoirs)												
83.	RGCE Operations	Reg. 2017/1485	A. 156	RG CE: Implementation Art.153 SO GL – FCR (frequency containment reserve) probablistic dimensioning												
84.	RPP	Reg. 2019/941	A. 63(3), (4)	Risk-preparedness: review the methodology, identify and update the regional crisis scenarios												
85.	SOGL	Reg. 2017/1485	A. 114	Operate an ENTSOE operational planning data environment (OPDE) for the storage, exchange and management of all relevant information for the CGM Business Process.												
86.	SOGL	Reg. 2017/1485	A. 115	Implementation of the RCC tasks – Common Grid Model												
87.	SOGL	Reg. 2017/1485	A. 14(2)	SOGL List of information to ACER (Monitoring SOGL)												
88.	SOGL	Reg. 2017/1485	A. 15	Annual report on operational security indicators												
89.	SOGL	Reg. 2017/1485	A. 16	Annual report on load-frequency control												
90.	SOGL	Reg. 2017/1485	A. 17	Annual report on regional coordination assessment												
91.	SOGL	Reg. 2017/1485	A. 75	CSAm clarification and amendment proposal												
92.	SOGL	Reg. 2017/1485		Develop amendments to SOGL												
93.	SOGL	Reg. 2017/1485	A. 65	Y-1 CGM scenario definition, testing & reporting												
94.	SOGL	Reg. 2017/1485	A. 10	System Operations European Stakeholder Committee – Organising stakeholder meetings and managing stakeholders feedback.												
95.	SOGL Regional	Reg. 2017/1485	A. 118	Adherence of Baltic TSOs to SAFA												
96.	SOGL Regional	Reg. 2017/1485, Reg. 2017/2196	38-39	Monitoring and assessing system stability and protection in the Continental Europe synchronous area												
97.	SOGL Regional	Reg. 2017/1485, Reg. 2017/2196	127-139	Monitoring and defining proposals for preserving and improving the frequency quality in the Continental Europe synchronous area												
98.	SOGL Regional	Reg. 2017/1485, Reg. 2017/2196	110	Development and operation of the Verification platform for the Pan-European TSOs												
99.	SOGL Regional	Reg. 2017/1485, Reg. 2017/2196	118	Ensuring a high standard of operability, reliability and security of the Continental Europe synchronous area												
100.	SOGL/CSAM	Reg. 2017/1485	A. 75(1) & A. 44(1)	Report on status on probabilistic risk management approaches and maturity												
101.	E&R	Reg. 2017/2196	N/A	NC Emergency & Restoration – Development of amendments												
102.	SOR	Reg. 2019/943	A. 36	SOR definition – development of amendment proposal												
103.	Offshore	NC & GLs, TEN-E	N/A	Offshore Frequency Control												
104.	Offshore	NC & GLs, TEN-E	N/A	Offshore Geographical Areas												
105.	Offshore	NC & GLs, TEN-E	N/A	Offshore Ramping												
106.	Offshore	NC & GLs, TEN-E	N/A	Offshore Dynamic stability												

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RESEARCH, DEVELOPMENT & INNOVATION																
107.	RDI	Reg. 2019/943	A. 30(1i)	RDI Roadmap-cycle (Roadmap, Implementation Plan, Monitoring Report)												
108.	RDI	Reg. 2019/943	A. 30(1i)	Deployment of research plans through an efficient research programme and projects												
109.	RDI	Digitilising the Energy System – EU Action Plan	Action 3	Digitalisation of Energy Action Plan (DoESAP) – Promoting Digital Infrastructure												
110.	RDI	EU Grid Action Plan	Action 7	Technopedia												
111.	RDI	N/A	N/A	Twin EU – Digital Twin for Europe												
112.	RDI	EU Grid Action Plan	Action 6	Definitions of available grid hosting capacities and pan-EU overview												
113.	RDI	N/A	N/A	Flexibility and markets												
114.	RDI	N/A	N/A	Sector Coupling – Future of Energy System												
115.	RDI	N/A	N/A	Innovation Database												
SYSTEM DEVELOPMENT																
116.	Adequacy	Reg. 2019/943	A. 30(1m)	Seasonal Outlook Reports						W						W
117.	Adequacy	Reg. 2019/943	A. 23	ERAA (European Resource Adequacy Assessment)												
118.	RfG, DC, HVDC	Reg. 2016/631 Reg. 2016/1388 Reg. 2016/1447	A. 59 Reg. 2016/631 A. 57 Reg. 2016/1388 A. 76 Reg. 2016/1447	Connection Network Codes – develop amendments												
119.	RfG, DC, HVDC	Reg. 2016/631 Reg. 2016/1388 Reg. 2016/1447	A. 58 Reg. 2016/631 A. 56 Reg. 2016/1388 A. 75 Reg. 2016/1447	Connection Network Codes – Non-binding guidance on implementation, explaining technical issues, conditions and interdependencies												
120.	RfG, DC, HVDC	Reg. 2016/631 Reg. 2016/1388 Reg. 2016/1447	A. 59 Reg. 2016/631 A. 57 Reg. 2016/1388 A. 76 Reg. 2016/1447	Connection Network Codes – Monitoring (analysis and preparation of report) – joint Connection NCs report												
121.	RfG, DC, HVDC	Reg. 2016/631 Reg. 2016/1388 Reg. 2016/1447	A. 59 Reg. 2016/631 A. 57 Reg. 2016/1388 A. 76 Reg. 2016/1447	Connection Network Codes – Monitoring of existing and under development standards												
122.	RfG, DC, HVDC	Reg. 2016/1447	A. 76(2)	NC HVDC – list of information to ACER												
123.	RfG, DC, HVDC	Reg. 2016/631	A. 59(2)	NC RfG – list of information to ACER												
124.	RfG, DC, HVDC	Reg. 2016/631 Reg. 2016/1388 Reg. 2016/1447	A. 11 Reg. 2016/631 A. 10 Reg. 2016/1388 A. 9 Reg. 2016/1447	Grid Connection European Stakeholder Committee – Organising stakeholder meetings and managing stakeholders feedback												
125.	TYNDP	Reg. 2022/869	A. 11	CBA methodology												
126.	TYNDP	Reg. 2022/869	A. 12	TYNDP scenarios												
127.	TYNDP	Reg. 2022/869	A. 13	TYNDP gap analysis/system needs												
128.	TYNDP	Reg. 2022/869	Annex III – A. 2(1) (d) and A. 11	TYNDP CBA												
129.	TYNDP	Reg. 2019/944	A. 48(1)	Data and modelling												
130.	TYNDP	Reg. 2019/944	A. 59(1)(d) and (10)	Planning standards and project inertia												

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ICTC																
131.	Communica-tion Networks (CN)	Reg. 2017/2196	A. 41	Communication Systems for the restoration plans/needs during an emergency state												
132.	Cybersecurity	NCCS	A. 19(1) A. 24(5) A. 35 & A. 36 A. 43(5) A. 37(9) A. 44(6)	Implementation of Network Code on Cyber Security (NCCS)												
133.	EAS	Reg. 2017/1485, Reg. 2017/2196	A. 42 & A. 152, A. 28	Next Generation EAS												
134.	EAS	Reg. 2017/1485 Reg. 2017/2196	A. 42 & A. 152, A. 28	EAS WAMS Phase 2												
135.	EAS	Reg. 2017/1485 Reg. 2017/2196	A. 42 & A. 152, A. 28	WAMS ex-post analysis tool												
136.	Inter-operability	A. 23, A. 24 Reg. 2019/944 & Art.11, A. 12 Implementing Regulation (EU) 2023/1162	N/A	Draft/Monitor Implementing acts on data access and data interoperability/maintain reference model												

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