

ENTSO-E's

Implementation plan for the amended ERAA methodology

July 2026



Mission Statement

ENTSO-E – the European Network of Transmission System Operators for Electricity – brings together 40 electricity Transmission System Operators (TSOs) from 36 countries. ENTSO-E members are responsible for the secure and coordinated operation of Europe's electricity system. Together, they operate a system of around 500,000 km of power lines – **the largest interconnected electrical grid in the world** – and serve about 520 million citizens.

Electricity is not merely a market commodity, it is an essential service, and TSOs are fully regulated public service entities whose work is essential to powering Europe. The grid is the backbone of the electricity system and has extended over the whole Continent, beyond the borders of the EU. TSOs working together guarantee a functioning infrastructure that makes the trade of electricity possible, contributes to decarbonisation goals, and ensures a reliable and efficient power supply for all members of society.

These shared public service responsibilities need close cooperation beyond national borders, which led to the creation of ENTSO-E. Today, the association serves two main complementary purposes:

1. Cooperation of European TSOs

The foundations of this cooperation date back to the 1950s with the creation of electrical synchronous areas and interconnections, which laid the groundwork for today's interconnected European power system. TSOs established associations to work together on their own mandates and missions, that came together into what today is ENTSO-E. The European electricity system is one of the most stable and reliable grids in the world and is supported by the cooperation and coordination of TSOs both within the European Union and closely interconnected European countries. ENTSO-E strives to build consensus for decision-making amongst its member TSOs as this forms the strongest foundation for cooperation.

2. Fulfilling EU legal mandates

With the adoption of the Third Energy Package in 2009, ENTSO-E's role was formally recognised by European institutions. ENTSO-E was granted legally mandated tasks to further develop the European interconnected grid and to facilitate the integration of European electricity markets. These mandates cover a large spectrum of tasks, including system operation, system development, market integration, information technologies, R&D and innovation.

ENTSO-E's Implementation plan for the amended ERAA methodology

The European Resource Adequacy Assessment (ERAA) plays a central role in supporting informed policy and investment decisions to ensure security of electricity supply across Europe. Following the adoption of ACER Decision No 04/2026, the ERAA methodology has been amended to align with the evolving regulatory framework, notably the Electricity Market Design Reform and the introduction of the CISAF fast-track approval process for capacity mechanisms (CMs). These amendments introduce significant methodological modifications, including revised scenario frameworks, strengthened Economic Viability Assessment (EVA), reinforced “with-CM” scenarios and CM related parameters, and new requirements for transparency and stakeholder engagement.

In this context, ENTSO-E has launched the EUMIP (ERAA updated methodology implementation and planning) project to ensure a structured and compliant implementation of these changes while maintaining the continuity and robustness of the annual ERAA cycle.

This Implementation Plan provides a stepwise roadmap for the deployment of the amended methodology over the period 2026–2029. It outlines the key workstreams, prioritisation and indicative timeline for the integration of new method-

ological elements into the ERAA process, in line with Article 13(7) of the amended methodology. The plan follows a progressive approach, divided into multiple phases. It also reflects the need to balance regulatory ambition with operational feasibility, taking into account resource constraints, modelling complexity and alignment with ongoing ERAA deliveries. As such, it serves as both a strategic planning tool and a transparency instrument, to be reviewed annually and updated – if considered necessary – after consulting ACER, Member States and relevant stakeholders.

Main Amendments

The amended ERAA methodology introduces several key changes to the scenario framework, aimed at strengthening the consistency and policy relevance of the assessment. These include the clarification and extension of target years, as well as the refinement of central reference scenarios. It also stresses the need to implement with-CM scenarios, targeting explicit consideration of the effects of capacity mechanisms in adequacy assessments. This scenario design improves comparability across Member States and provides a more robust basis for supporting adequacy-related decision making.

A second set of amendments concerns the Economic Viability Assessment (EVA), which shall be further developed to better reflect market realities. The revised methodology introduces a more comprehensive revenue-based approach, and incorporates additional revenue streams beyond energy markets, such as capacity remuneration and other relevant income sources. It also enhances the modelling of investment decisions by accounting for construction periods and timing considerations as well as investor risk aversion, thereby improving the representation of capacity entry and exit dynamics.

In addition, complementary updates address other aspects, including the introduction of enhanced scenario comparison indicators and the publication of additional data.

Implementation principles

ENTSO-E's implementation plan of the amended ERAA methodology follows a structured, stepwise approach to ensure new features are implemented following principles which comply with the relevant regulatory requirements, delivers robust results, while ensuring the ERAA remains feasible to deliver in a one-year timeframe. Four implementation phases have been defined:

- › **Design:** activity aimed at defining the specifications and conceptual design of the new improvement, evaluating alternative methodology approaches, assessing any additional data collection requirements, and deciding on a preferred methodological approach to implement.
- › **Development:** activity aimed at realising the specifications defined in the design phase by implementing and testing new model functionalities, writing new scripts and toolchains, making refinements to the design

where necessary and receiving feedback from stakeholders on the new implementation.

- › **Proof of concept:** activity aimed at deploying the developed approach in a testing framework outside the operational framework to ensure the new feature achieves the required specifications, assessing the impact of the new feature of the overall computational time of the ERAA and validating whether it remains compatible with delivery within a one-year timeframe.
- › **Deployment:** activity aimed at applying the tested approach in the operational ERAA framework.

The time required for each phase depends on the complexity of the new implementation. For relatively straightforward features, some steps may be combined and implemented in a single edition. For more complex implementations, the entire set of phases may need to be spread across multiple editions of the ERAA.

Implementation Timeline

The implementation timeline outlines the stepwise integration of the amended ERAA methodology across successive ERAA editions, ensuring a gradual transition from design and testing phases to full operational deployment.

The timeline provides milestones for each phase while maintaining continuity of ERAA deliveries. The implementation will

be carried out on a best-effort basis. Reaching of the milestone remains subject to computational limitations and the maturity of development. As such, the timeline should be understood as a living framework, to be reviewed annually and eventually updated based on lessons learned, stakeholder feedback, and consulting Member States, ACER and relevant stakeholders.

		2026*	2027	2028	2029	2030
Scenarios	Scenarios (Article 3(5a))	› 1 CRS: NECP based scenario › Trends & Projections (Design, Development & PoC)	1 CRS: Trends & Projections (Minimum) (Deployment)	1 CRS: Trends & Projections (Minimum) (Deployment)	1 CRS: Trends & Projections (Minimum) (Deployment)	1 CRS: Trends & Projections (in function of NECP update in 2029) (Deployment)
	With CM scenarios (s) (Article 13(3-5))	Design, Development	Proof of Concept (1 Target Year)	Deployment (2 Target Year)	Deployment (All pivotal Target Year)	Deployment (All pivotal Target Year)
	Target Years	4	4	4	4	4
EVA	Revenue-based approach	Deployment	Deployment	Deployment	Deployment	Deployment
	Additional revenues (Article 6(9a-c))		› TSO survey on estimation of additional revenues from ancillary services, and intraday market. › Design & Development	Proof of Concept	Deployment	Deployment
	Construction period (Article 6(16a))	Deployment	Deployment	Deployment	Deployment	Deployment
ERAA outputs	Scenario comparison indicators (Article 11(3))	Deployment	Deployment	Deployment	Deployment	Deployment
	Additional data publication (Article 11(4))	Deployment	Deployment	Deployment	Deployment	Deployment
	CM Parameters (Article 12)	Deployment**	Deployment**	Deployment	Deployment	Deployment

* Current methodology

** If duly justified computational difficulties that prevent the execution of the with-CM scenario are encountered, parameters can be computed according to 13(4)
CRS = Central reference scenario

Table 1: ERAA updated methodology implementation plan

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