

Ljubljana, 16 April 2025
ACER-CZ-RMG-gb-2025
acer.ele.dir(2025)4860486

Ms Sonya Twohig
Secretary-General
ENTSO-E

Cc: Ms Mechthild Woersdoerfer
Deputy Director-General
European Commission

By e-mail only

Subject: Request for a proposal for amendments to the methodology for the European resource adequacy assessment

Dear Ms. Twohig,

We contact you to request that ENTSO-E develop a proposal for amendments to the methodology for the European resource adequacy assessment ('ERAA methodology')¹ and submit it to ACER within six months from the date of this request, i.e. by 16 October 2025.

This request is based on Regulation (EU) 2019/943 ('Electricity Regulation') which was amended by Regulation (EU) 2024/1747 as regards improvements to the Union's electricity market design. In accordance with Article 69(3) of the amended Electricity Regulation, the European Commission has issued a report assessing possibilities for streamlining and simplifying the capacity mechanism application process.² The Commission has requested that ACER amend the ERAA methodology in line with Articles 23 and 27 of the Electricity Regulation, and within the scope defined in this report.

Article 27(4) of the Electricity Regulation outlines the amendment process, stating that upon ACER's request, ENTSO-E must submit a draft of the proposed amendments for ACER's approval within six months of receiving the request.

¹ [Annex I to ACER Decision 24/2020](#).

² [COM/2025/65 final](#).

The aim of the requested amendments is to streamline the ERAA methodology, without compromising its robustness. The scope of the proposed amendments is categorised below into three main topics.

1. IMPROVED REPRESENTATION OF THE ADEQUACY RISK

New Central Reference Scenario: The current ERAA central reference scenario reflects the national objectives and targets, including those set out in the national energy and climate plans ('NECPs'). The requested amendments should establish clear principles for defining the new, additional central reference scenario that incorporates trends and projections ('trends and projections scenario'). The aim is to more accurately reflect the actual pace of the energy transition, which may differ from the planned trajectory.

The trends and projections scenario should coherently account for progress in the areas of generation deployment (e.g. renewables, nuclear), demand developments (e.g. hydrogen electrolysis, electrification rates), and grid infrastructure rollout. Assumptions should not be more conservative than existing projections that already account for adopted and implemented policies, as well as those under discussion with a realistic chance of adoption. This scenario should follow a probabilistic approach³ and take into consideration the biennial reporting of Member States under Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action.⁴ All assumptions, along with clear indication of the sources and methods used should be agreed with the regulatory authorities, and subject to thorough stakeholder consultation carried out according to ACER's guidance.

The new scenario should maintain those assumptions from the central scenario that are not related to the energy transition, in order to keep its focus on decarbonisation policies. Lastly, indicators should be developed to enable a comparative analysis of the ERAA scenarios.

Investor risk aversion: Reflecting on investor risk aversion in the assessment is key to more accurately representing investment decision-making process. In this context, ENTSO-E should appropriately account for the risk aversion of a rational investor by applying hurdle rates.

Non-fossil flexible resources: The TSOs' national estimates of demand response and storage potentials need to be improved to ensure the use of reasonable and consistent assumptions. As the energy transition accelerates, the economic viability assessment should evolve accordingly to better reflect the business model of these resources.

Reliance on third countries: In order to account for potential associated risks with third-country exchanges, ENTSO-E should suggest a solution for monitoring cross-zonal exchanges with these countries, particularly with Morocco, Moldova, Tunisia and Ukraine. ENTSO-E must ensure that ACER can effectively oversee this process.

³ According to Article 23(5)(h) of the Electricity Regulation

⁴ [Regulation \(EU\) 2018/1999](#).

2. FRAMEWORK SIMPLIFICATION

Target year selection: According to the Electricity Regulation, ERAA should cover each year within a 10-year period. However, modelling the entire 10-year ERAA time horizon remains a computationally intensive task. The ERAA methodology should establish a process for selecting a subset of target years, with ACER's involvement. The rules should ensure that the selected years are highly relevant to decision makers, with the number of target years increasing when ENTSO-E's capacity grows. Other years could be covered through interpolation. To maintain comparability of results and assumptions across the editions, ERAAs should include overlapping policy years (e.g. 2030, 2035) as target years.

Implementation plan consideration: ENTSO-E should review the modelling of the measures defined⁵ by Member States to eliminate any identified regulatory distortions or market failures. Concrete measures that can be easily incorporated⁶ should be included into the ERAA modelling. All other actions should be considered based on their likely impact. To further simplify the ERAA modelling, the sensitivity analysis which is currently required when an indirect restriction on wholesale price formation is modelled in ERAA, could be made optional.

Investment modelling: Currently, the ERAA methodology allows two approaches to investment modelling: system cost minimisation and revenue-based assessment. In the previous editions of ERAA, ENTSO-E applied the system cost minimisation method which reached significant maturity over time. However, its application has been constrained by computational limitations. As a result, ENTSO-E adopted multiple simplifications to the investment module, resulting in inconsistencies between the investment and adequacy modules.

With the revenue-based approach, it is easier to solve the investment problem because it allows breaking it down into simpler subproblems. For this reason, the revenue-based approach should be a preferred method to assess the economic viability of resources in the ERAA, while the system cost minimisation should remain an alternative option which could give equally valid results when computationally tractable. To guarantee the internal consistency of ERAA, the assumptions used for the investment module should be consistent with the assumptions of the adequacy module.

Assumption simplifications: ENTSO-E should revise the number of weather scenarios being modelled, while ensuring a realistic representation of possible climatic situations and guaranteeing that both ERAA modules align more closely in representing climatic conditions. To further reduce computational complexity, ENTSO-E should also propose a robust revision of the outage assumptions for both resources and interconnectors. The revised approach should be easily integrated into both investment and adequacy assessments.

Streamlining of State aid approval: ERAA should indicate the capacity volumes to be procured through potential capacity mechanisms for each modelled bidding zone with an

⁵ According to Article 20(3) of the Electricity Regulation

⁶ For instance, measures that can be incorporated by adjusting a parameter value.

identified adequacy concern. Considering this requirement and the framework for foreign resources participation in capacity markets, running the variant “with CMs” should be prioritised.

3. IMPROVED TRANSPARENCY

De-rating factors: The de-rating factors definition and calculation should be reviewed and, where necessary, clarified to ensure that they are fit for purpose. ENTSO-E should submit to ACER robust de-rating factors derived from each ERAA for each Member State and relevant technology type, along with the methodology used to derive them. The de-rating factors will be published by ACER. ENTSO-E must ensure that ACER can effectively oversee the computation of the de-rating factors.

Results interpretation: To allow Member States and stakeholders to correctly interpret the results of the assessment, ENTSO-E should publish all relevant information. This includes, but is not limited to, the publication of (i) the energy not served per hour; (ii) the hourly cross-zonal exchanges; (iii) the full range of the LOLE and ENS distributions; (iv) the inputs referred to in Article 5 of the ERAA methodology for which default values across bidding zones are used; (v) the hourly dispatch results; and (vi) the hourly plant availability.

In developing the proposal for amendments, ENTSO-E should actively collaborate with ACER, while providing regular updates on its progress. During this time, ACER will also collect further input from regulatory authorities and the European Commission and ensure ENTSO-E is kept informed. Additionally, ENTSO-E should undertake a comprehensive consultation process in accordance with Articles 27 and 31 of the Electricity Regulation. It is also important for ENTSO-E to seek input from TYNDP Stakeholder Reference Group to ensure the ERAA central reference scenarios are consistent with the TYNDP scenario framework.

Considering the above, we request that ENTSO-E submits a proposal for amendments to the ERAA methodology based on the scope outlined in this letter and any relevant additional inputs from ACER during the development process, **no later than 16 October 2025**.

We appreciate your ongoing cooperation and look forward to your prompt attention to this matter. Should you have any questions, please do not hesitate to contact us at *[redacted]*.

Yours sincerely,

[SIGNED]

Christian
Zinglensen Director