

# Response ID ANON-R2XN-PP4M-B

Submitted to European Resource Adequacy Assessment 2023  
Submitted on 2024-01-31 17:31:03

## About you

1 What is your First Name?

First Name:  
Michaël

2 What is your Last Name?

Last Name:  
Van Bossuyt

3 What is your e-mail address?

Email:  
mvanbossuyt@febeliec.be

4 What is your organisation?

Organisation:  
IFIEC Europe

What is your affiliation?:  
Market actor on supply or demand side (incl. trading, storage, DSR)

5 I agree to ENTSO-E's Consultation Hub privacy policy

I agree to ENTSO-E's Consultation Hub privacy policy:  
Yes

## Your feedback on ERAA 2023

6 The ERAA target methodology is set to support the achievement of the EU 2030 climate and energy objectives set out in Article 1(a) of Electricity Regulation. Do you agree that the ERAA 2023 is already an important analysis in view of EU ambitious climate and energy targets?

Disagree

7 How is the ERAA 2023 useful to you or your business?

Adequacy situation in the mid-term drives our business decisions., Other (please explain)

Additional comments/explanations:

As representative of industrial energy consumers, IFIEC Europe considers a well-modelled and complete ERAA (which it considers currently not to be the case) a useful tool to analyse to what extent (future) projects are possible and viable. ERAA 2023 does not yet comply with the level of quality required for such an exercise to be conducted on a trusted basis

8 In your opinion, what are the most important methodological achievements of the 2023 ERAA edition? Rank your answers from 1 (most important) to 4 (least important).

Most important methodological achievements - Economic Viability Assessment:

Most important methodological achievements - Flow-Based Market Coupling:

Most important methodological achievements - Adequacy simulation with curtailment sharing:

Most important methodological achievements - Other:

Comment on most important methodological achievement:

## Improvements for future editions

9 What are in your opinion the most important features to be developed in future ERAA editions with regards to the adequacy assessment? Rank your answers from 1 (most important) to 7 (least important).

Future adequacy features - Improve demand forecasting:

1

Future adequacy features - Improve explicit demand response modelling:

3

Future adequacy features - Improve implicit demand response modelling:

2

Future adequacy features - Improve modelling of climate change:

6

Future adequacy features - Improve electrolyser modelling:

4

Future adequacy features - Improve the maintenance optimization methodology (describe in comment below):

5

Future adequacy features - Other:

Future adequacy features comments:

10 What are in your opinion the most important features to be developed in future ERAA editions with regards to the Economic Viability Assessment (EVA)? Rank your answers from 1 (most important) to 6 (least important)

Future EVA features - Inclusion of additional technologies as investment candidates in the EVA (name technologies in comments):

Future EVA features - Increased number of climate years (CY) for the EVA:

Future EVA features - Improvement in the methodology for CY scenario reduction for the EVA:

Future EVA features - Implementation of the EVA on a Flow-Based model instead of an Net Transfer Capacity model:

Future EVA features - Other:

1

Future EVA features comments:

Include scenarios with capacity mechanisms, as currently ERAA 2023 considers many (most) countries with an operational CRM to be non adequate, which is inconceivable

11 Which additional scenarios or sensitivities would you be interested to see in future ERAA editions? Rank your answers from 1 (most interested) to 7 (least interested).

Additional scenarios or sensitivities - Sensitivities on the demand levels:

1

Additional scenarios or sensitivities - Cross-border capacities restrictions:

4

Additional scenarios or sensitivities - Anticipated Capacity Mechanisms capacities:

3

Additional scenarios or sensitivities - DSR levels:

2

Additional scenarios or sensitivities - Sensitivity on fossil fuel limitations:

6

Additional scenarios or sensitivities - Sensitivity on system stress:

7

Additional scenarios or sensitivities - Sensitivity on EVA with different fuel prices:

5

Additional scenarios or sensitivities comments:

Final comments

12 Do you have additional suggestions or comments?

Additional suggestions:

IFIEC Europe would like to thank ENTSO-E for this consultation on the European Resource Adequacy Assessment 2023 as the ERAA has become an important element in discussions on (future) adequacy of the European electricity grid, even though the ERAA 2023 is yet again still not complete, with many elements still under development.

As already indicated by ENTSO-E, ERAA 2023 should not be interpreted as an effort to predict the system's security of supply, but rather as a measure of the future power system's ability to maintain security of supply under a very high number of possible future system states. As such, it is important to assess possible scenarios and sensitivities to those scenarios, but what IFIEC Europe considers lacking is a clear overview of the reasoning behind selecting (or not) scenarios and sensitivities as well as a probability assigned to the materialisation of the selected scenarios and sensitivities in order to be able to assess how likely a modelled and calculated outcome would be. This is even more important in light of the (understandable) issues with assessing the impact of the still on-going (even though less pronounced) energy crisis due to the war in Ukraine on the future system, both in capacity (e.g. large impact over the course of the last year on (a.o. delayed) phase-outs of certain assets and asset classes, fuel switches and investment programs) as well as energy prices (electricity but also gas and coal and other alternatives).

Because of the fact that ERAA 2023 still does not include a central reference scenario with capacity mechanisms (meaning that for countries with existing capacity mechanisms, only assets already contracted are taken into account and thus even those countries with existing capacity mechanisms are not shown as adequate in the ERAA 2023 results as some of the required capacity for their capacity mechanisms will only be contracted in the following years) as well as the above comments, it is also important to highlight as writer (and understand as reader) the advantages and shortcomings of the ERAA tool with respect to the conclusions that can be drawn from it. Especially because existing capacity mechanisms are not taken completely into account for the results of the ERAA 2023, this could lead to wrong conclusions for a non-expert reader of the ERAA 2023 looking at the overview graphs and tables showing adequacy concerns in the target years for countries with existing capacity mechanism (e.g. Ireland, France, Belgium, Italy, ...). IFIEC Europe considers this one of the most worrisome shortcomings of the ERAA 2022 and insists that the advantages but also the limitations of ERAA should be better documented, to ensure that a firm understanding of the results and outcomes leads to a correct use towards policy and investment decisions.

On the scope of ERAA 2023, IFIEC Europe was surprised to see that yet again and still, despite many comments from stakeholders on this point, not every year of the ten year period (2023-2033) modelled (only four years, 2025, 2028, 2030 and 2033). IFIEC Europe does consider this outcome of the ERAA 2023 analysis a shortcoming and wonders whether ENTSO-E has even delivered the requested analysis by not modelling every year. IFIEC Europe also further wants to refer to its major disappointment that despite a sensitivity scenario with an Economic Viability Assessment (EVA), on which IFIEC Europe will make some further comments below, a reference scenario with capacity mechanisms is still not being proposed, despite an obligation to do so. While IFIEC Europe could have understood that there might have been time constraints and computational complexity to provide it in previous versions of ERAA, it considers the ERAA general framework to have been developed sufficiently long ago and experience gained over consecutive releases for ENTSO-E to have developed the necessary tools to enable it to fulfil its obligation to provide a complete ERAA. IFIEC Europe considers to its disappointment the ERAA 2023 of ENTSO-E as incomplete and insufficient.

On the results of ERAA 2023, and also referring to comments above, IFIEC Europe finds it inconceivable to observe that ERAA 2023 considers a wide range of countries not covered for adequacy and this despite many of the countries considered at risk by ENTSO-E being exactly those countries with existing CRM measures in place (e.g. France, Belgium, UK, Ireland, Finland, ...). ENTSO-E states that adequacy risks appear in some European countries and that margins are tight, but the presented results, because of the lack of a scenario with CRMs, give a deceitfully wrong impression on security of supply in many Member States and the EU as a whole as measures that have been taken are not reflected in the outcomes. IFIEC Europe also opposes the approach of ENTSO-E to discard "extreme climate years" as these would bias and become dominant in investment and decommissioning decisions, yet such years not only generate revenues for the asset owners, but also need to be covered by, risk averse (!), BRPs who otherwise during such years would completely be uncovered in the energy markets and exposed to potentially stratospherically high imbalance costs, which could erode or even erase their financial positions. The risk-averse position of BRPs should exactly lead to economic viability of certain investments in flexibility as these would mitigate their overall risk exposure. The absence of any of such dynamics also leads to the very surprising conclusion of ERAA 2023 (and its predecessors) on investments in a.o. storage/batteries, where ERAA 2023 expects investments across the EU of only 0,1 GW (2025, 2028 and 2030 each) and 1,3 GW (2033), whereas reality shows massive and growing investments in these technologies at levels much higher than this outcome and this not on a EU basis but even on individual Member State level (and this both for Member States with and without CRMs)! By omitting existing CRMs and the outcome of past auctions, ERAA also grossly underestimates new build of CCGTs/OCGTs, as many have been contracted and should be delivered by a.o. Target Year 2025, but ERAA does show zero additions. By discarding certain drivers for investments, ERAA is short-sighted and completely misses massive investments that already today can be observed. ENTSO-E thus has biased ERAA towards underestimating investment, thus artificially increasing any possible adequacy concerns and creating a false sense of urgency.

On the input data and assumptions of the ERAA 2023, IFIEC Europe is not able to validate or nullify all the different components and provide an exhaustive overview of all possible comments. This should however not be considered as an approval of IFIEC Europe of all the assumptions and input data.

- Taking into account the necessity to fully grasp the impact and sensitivity of the ERAA modelling towards the input data, IFIEC Europe wants a.o. explicitly refer to the assumptions taken with regards to the long-term gas and other energy vector prices as already current gas price levels are significantly below those taken into account by ERAA 2023 for Target Year 2025, by which time tension on the gas markets should have been reduced even more. While IFIEC Europe understands that assumptions have to be locked in at some point in order to be able to do the necessary computations, it is equally (or even more so) necessary to understand how sensitive the model outcomes are to variations on several parameters, especially in the currently very volatile economic climate. IFIEC Europe finds ERAA 2023 lacking in providing such quantitative and/or qualitative insights, despite already having made similar comments regarding ERAA 2022.
- Concerning in particular demand and demand side response, IFIEC Europe wonders to what extent the impact of the still on-going energy crisis is taken into account, both on overall demand (in light of sadly enough observed demand destruction in Europe) and demand side response, a.o. in light of implicit and explicit DSR in reaction to very high energy prices and lessons that can be drawn towards the future on consumer reactions to high prices in future potential scarcity situations, while also the work on the EMD and the on-going work on the new Network Code on Demand Response and other on-going initiatives should have a positive effect on participation of flexibility. As such, IFIEC Europe questions a.o. the used data regarding inelastic demand profiles considered in ERAA 2023 and wonders whether all considered inelastic demand is in reality inelastic, as recent consumption data across Europe has shown (significant!) reductions in overall demand due to high prices and/or formal and informal requests to lower consumption.
- On the topic of climate data, IFIEC Europe can only observe that this topic remains a blackbox where it is unclear how the input data is transposed in the

output data used by ERAA.

- On net import/export capacities, it remains unclear to IFIEC Europe to which extent the proposed values (in GW) correctly reflect regulatory and legal requirements (e.g. min 70%minRAM, 20%minRAM, ...) in combination with future grid extension and expansion and thus asks that also such values are presented.
- Regarding the hurdle premium, and as for the ERAA 2022 study, IFIEC Europe wonders whether the proposed values are not high for certain projects, especially projects under capacity mechanisms as the guaranteed revenues under many of these should be reflected in less risk and thus lower required hurdle rates. Because the lack of a reference scenario with capacity mechanisms, it is impossible to discern if and how ENTSO-E has taken such effects into account to avoid locking in windfall profits for less risky assets.
- On the values for economic commissioning of a.o. storage (batteries) and Demand Side Response (DSR), IFIEC Europe is surprised to see that only small volumes have been taken into account (as also mentioned above) while many countries have taken measures and are removing barriers to market (a.o. in reaction to the current energy crisis) to accelerate investments in these technologies. On storage, IFIEC Europe is surprised to see that battery capacity (non-hydro) is considered almost insignificant in the overall picture and this despite many on-going small to (very) large battery projects being announced and inaugurated in almost all countries within the scope of ERAA 2023, and that no lessons were drawn out of the underperformance of ERAA 2022 to identify such additions. On explicit DSR commissioning potential, and also referring to an above comment on the low volumes for additional DSR, IFIEC Europe does not understand how the values for all countries are so low and remain flat in the non-cumulative overview, indicating not only low capacities but also no increases over time for most countries. Even more surprising is that for several countries, in the next decade (!) there will be, according to ERAA 2023, zero (!) explicit DSR potential and additions, and this despite all the efforts being taken on legislative and regulatory level to enable the valorisation of flexibility.

On the economic viability assessment (EVA), IFIEC Europe is surprised to see the quite large number of investment constraints and is most surprised by the fact that notably for Belgium these entail limitations on the development of storage and demand side response, which IFIEC Europe finds very difficult to understand. IFIEC Europe is also surprised to see in the results of the ERAA 2023 that due to ENTSO-E's EVA, each target year is showing very important capacity reductions, with assets considered not viable as market prices are too low, which then according to ENTSO-E then leads to adequacy concerns. However, as has been observed, even possible adequacy concerns exactly lead to higher market prices and would thus improve profitability of the aforementioned assets, hence improving exactly their economic viability and thus not leading to their closure and thus not to adequacy concerns. ENTSO-E thus creates a self-fulfilling prophecy by not allowing market prices to correctly reflect the impact of scarcity. IFIEC Europe further wants to reiterate its comments on the choice of ENTSO-E not to include the impact of existing capacity mechanisms on viability of assets that have not yet been contracted but that are within the scope of the relevant capacity mechanisms, which result in an, as above described, overestimate of the concerns regarding viability of assets in countries with an approved capacity mechanism. Thus, while adequacy issue of a country without an existing capacity mechanism could potentially be considered a risk, by not including a reference scenario with capacity mechanisms, the overview from ENTSO-E grossly overestimates the adequacy concerns for all countries with approved capacity mechanisms. A reference scenario with capacity mechanisms would have provided a more complete and thus correct overview of potential future adequacy concerns in Europe under a current policies framework.

On investor risk aversion and the related hurdle rates, IFIEC Europe is surprised to see despite earlier comments (e.g. on ERAA 2022) still very important hurdle rates are applied. However, IFIEC Europe is even more so surprised to see that risk aversion of asset investors for generation is considered, but not at all risk aversion of balancing responsible parties (BRPs), whereas the latter would, without sufficient available and/or contracted flexibility in their portfolios completely exposed to potentially very high imbalance prices. Already today can be observed that many BRPs are taking increasingly measures to ensure sufficient flexibility in their portfolios. This according to IFIEC Europe also explains partially why ENTSO-E is grossly underestimating year after year in its assessments the uptake of demand side response and storage such as batteries, as its models do not even consider any investment signals from BRPs and thus underestimate an important driver for the capacity additions that have been observed. Indeed, as TSOs are only responsible for the residual imbalances, BRPs are to maintain balance in their own portfolios and if they are not capable of doing this, will be exposed to the imbalance prices resulting from TSOs solving the residual imbalances. As these imbalance prices can reach very high levels (as already observed in the current balancing markets, before even moving Europe-wide towards marginal clearing under the European balancing platforms), it is very strange that ENTSO-E does not take into account the central role of the BRPs and their risk aversion (contracting flexibility to avoid being exposed to potentially very high imbalance prices) in its models. This fundamental omission by ENTSO-E points towards the biggest issue of adequacy, as it indicates that TSOs seem to have no problem to socialize risks but not benefits or alternatively allow parties to free-ride on the overall system at the detriment of costs for consumers, as it allows overestimating adequacy concerns, leading to capacity mechanism and thus less investment needs for BRPs (as the system covers adequacy at the expense of customers) and thus allowing them a free ride. A same issue arises with the underestimations regarding DSR, both implicit and explicit, as the current crisis shows that consumers, if no market barriers exist, do effectively react to high prices (peak prices and/or longer periods of (very) high prices not at peak price levels) by reducing their consumption and changing their consumption patterns (and not reverting back to their old habits once price levels start slowly reducing, as can be observed in the overall electricity consumption data). IFIEC Europe most strongly regrets that ENTSO-E does not really take the full effect hereof into account, even though the current crisis from an empirical point of view clearly shows the existence of this effect that theoretically already has been predicted for a very long time. With market price caps potentially evolving towards Value of Lost Load (VoLL) of the segments with the lowest VoLL, demand and supply will automatically evolve towards each other to clear markets. By omitting this effect, adequacy concerns to be covered by other mechanisms than the market are overestimated and thus ERAA does not provide the correct insights for correct policy and investment decisions.